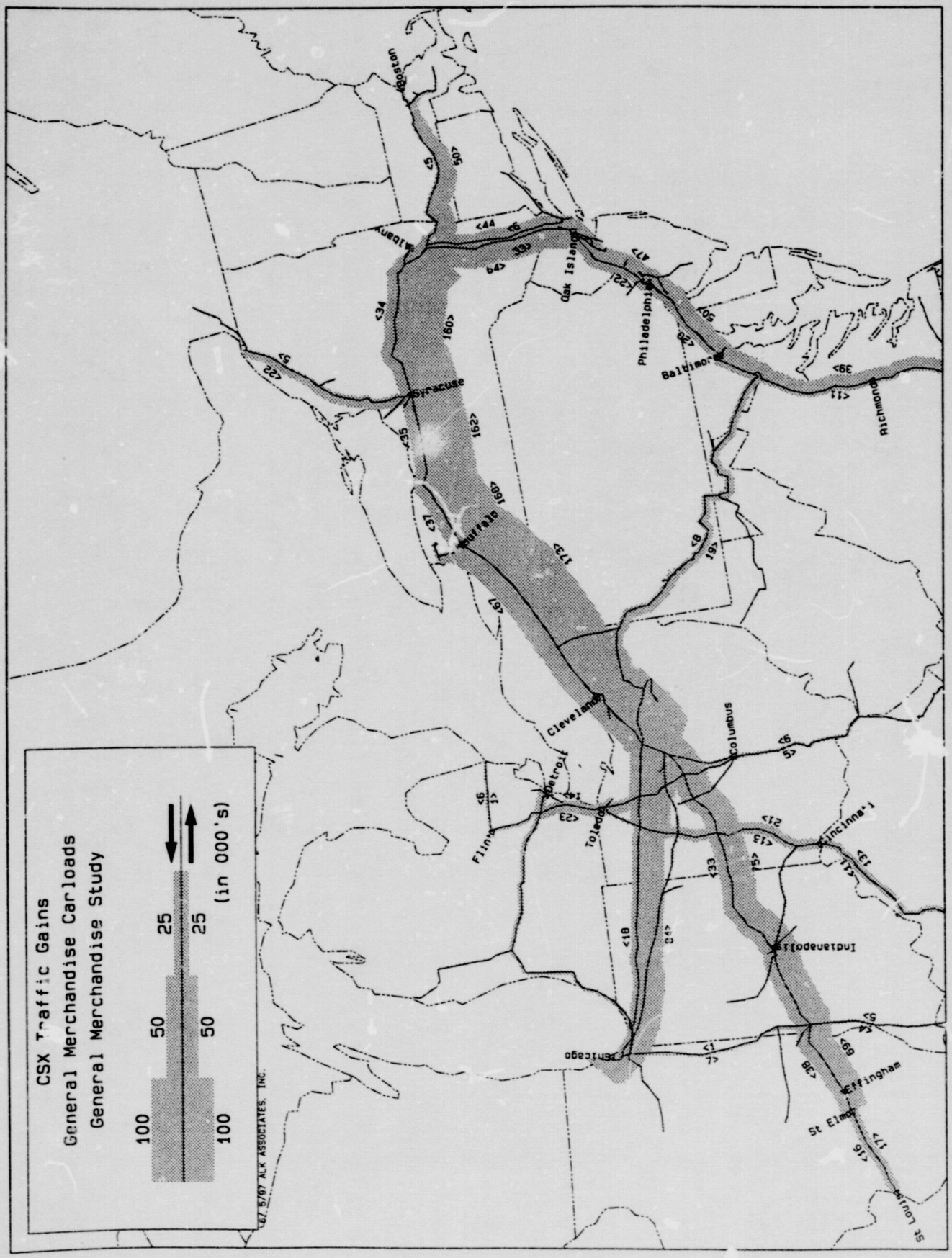
Figure 9


CSX Traffic Gains
General Merchandise Carloads
General Merchandise Study
100
50
25
25
50
100
(in 000's)
Boston
Albany
Syracuse
Oak Island
Philadelphia
Baltimore
Richmond
Buffalo
Cleveland
Detroit
Toledo
Columbus
Cincinnati
Indianapolis
Chicago
Effingham
St Elmo
St Louis

6. Results of the CCIO Remainder Study

The CCIO Remainder Study was conducted to estimate diversions and extended hauls of coal, coke and iron ore traffic in markets not studied by CSX's coal department. Diversions and extended hauls are due to new CSX services created by the transaction, based on the division of lines and facilities agreed to by CSX and NS, including the definitions of shared assets. Because this Study used a different traffic file than the Waybill Sample Study, this Study also replicated the allocation of Conrail's 1995 traffic movements to CSX that was performed in the Waybill Sample Study.

CSX's coal department studied coal, coke and iron ore movements to selected destinations on the expanded CSX system. I understand that the destinations they selected were intended to cover the primary, high-volume destinations for movements of these commodities that may be affected by CSX's acquisition of Conrail lines. I understand that these destinations include destinations on lines acquired from Conrail, and destinations that might consume coal, coke and iron ore produced at origins on lines acquired from Conrail. CSX provided ALK with a list of the destinations included in its study. ALK excluded these destinations from the CCIO Remainder Study. Hence, the results of the CCIO Remainder Study are due to CSX diversions and extended hauls in markets with relatively small volumes. The CCIO Remainder Study did not estimate diversions of freight from truck, barge or other modes to rail service.

The CCIO Remainder Study is based on a traffic file developed from four data sources: Conrail 1995 waybills from its COSAC system, CSX 1995 waybills from its DSIS system, NS 1995 waybills for movements terminated in Canada, and the 1995 STB

Waybill Sample. The traffic file was limited to coal, coke and iron ore traffic defined by STCC by CSX's coal department.[1] All other movements were excluded.

CSX elected to base this Study on the composite traffic file instead of the STB Waybill Sample in order to gain greater accuracy in market volumes and movement attributes than is captured in the Waybill Sample. The additional accuracy of volumes and attributes facilitated subsequent tasks to simulate empty car movements and to develop the operating plan for the post-transaction CSX system.

The Study results include estimates of the Conrail revenue that CSX will capture, estimates of the revenue from other carriers that CSX will capture (for example, from diversions of non-Conrail participatory traffic and from extended hauls on Conrail joint traffic with other carriers allocated to CSX), estimates of the CSX revenue that NS will capture from CSX traffic allocated or diverted to NS, and estimates of the NS revenue that CSX will capture from NS traffic allocated or diverted to CSX.

Details on the traffic file used in this Study and application of the ATD are presented in Appendix V.

Table 6 summarizes the revenue results of this Study for CSX. ALK estimates that Conrail's revenue for the traffic allocated to CSX is $11 million. ALK estimates that CSX will incur a net loss of $0.2 million to NS and other carriers based on CSX's post-transaction service for the Conrail traffic allocated to CSX. ALK estimates that CSX will incur an additional net loss of $5.6 million to NS and other carriers due to diversions and extended hauls of non-Conrail participatory traffic in the traffic file. I understand that

[1] STCCs included in the Study were: 10-11190, 10-11240, 10-11290, 10-11310, 10-11320, 11-11215, 11-21110, 11-21210, 11-21211, 11-21212, 11-21290, 11-21295, 29-91425, 29-91430, 29-91490, 32-95922, 40-11206, 40-21170.

these gains and losses are combined with the results of CSX's CCIO Study in the verified statement submitted on behalf of CSX by Raymond Sharp.

By definition, the Study examined a limited set of commodities. Table 7 lists the gains in CSX revenue by two-digit STCC groupings.

CSX gains revenue from NS and other carriers due to new and more efficient post-transaction routes. Between locations served by CSX and locations on Conrail lines acquired by CSX, including shared asset areas, CSX will be able to offer new single-line service. Additionally, due to the construction or improvement of connections between CSX lines and acquired Conrail lines, CSX will be able to offer shorter routes between some locations.

Figure 10 shows a traffic density map of the CCIO Remainder traffic allocated and diverted to CSX.

Table 8 presents the revenue effects on other railroads of CSX's acquisition of its Conrail lines for CCIO Remainder traffic. I understand that NS has separately assessed the revenue effects on other carriers of its acquistion of Conrail lines.

Table 6
Summary CSX Revenue Changes
CCIO Remainder Study
(Revenue in $000)

Conrail Traffic Allocated to CSX		
	Gains from Conrail	$11,423
	Gains from NS	$128
	Gains from Others	$41
	Losses to NS	($376)
	Losses to Others	($8)
	Net from/to NS and Others	($215)
Diversions and Extended Hauls of non-Conrail Traffic		
	Gains from NS	$371
	Gains from Others	$9,558
	Losses to NS	($15,408)
	Losses to Others	($123)
	Net from/to NS and Others	($5,602)
	Sum of Net from/to NS and Others	($5,817)
Total Revenue Change		$5,606

Table 7
Summary CSX Revenue Changes by Commodity
CCIO Remainder Study
(Revenue in $000)

STCC	Commodity Name	Revenue Change
10	Metallic Ores	$2,399
11	Coal	$13,436
29	Petroleum or Coal Products	($10,235)
40	Waste and Scrap	$5
Total		$5,606

Figure 10

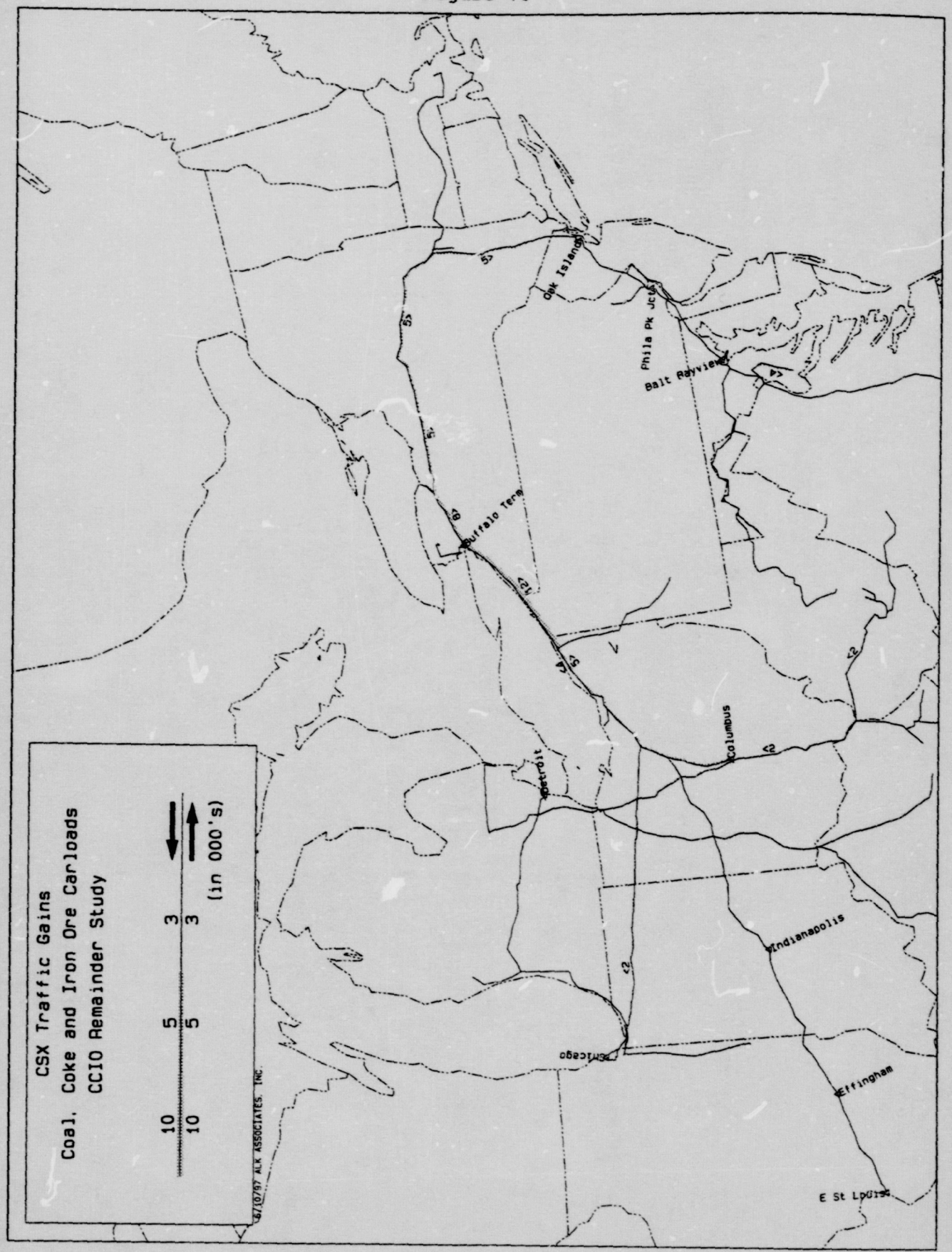

CSX Traffic Gains
Coal, Coke and Iron Ore Carloads
CCIO Remainder Study
10
5
3
3
5
10
(in 000's)
6/10/97 ALK ASSOCIATES, INC.
Oak Island
Phila Pk Jct
Balt Rdyview
Buffalo Term
Detroit
Columbus
Indianapolis
Chicago
Effingham
E St Louis

Table 8
Summary Revenue Changes for Other Railroads
CCIO Remainder Study
(Revenue in $000)

Railroad	Revenue Change
Buffalo and Pittsburgh	$-3,538
Burlington Northern Santa Fe	$143
Canadian National	$-2,879
CP Rail System	$-241
Elgin, Joliet and Eastern	$-5
Illinois Central	$-52
New England Central	$1
Union Pacific	$-114
Wheeling and Lake Erie	$18

Notes:
1. Buffalo and Pittsburgh includes Allegheny and Eastern, Genesee and Wyoming, and Rochester and Southern.
2. Illinois Central includes Cedar River and Chicago, Central and Pacific.
3. Union Pacific includes Southern Pacific and Chicago and North Western.

7. Operating Plan Development

ALK supported the development of the Operating Plan for the expanded CSX system by consolidating traffic study results into a post-acquisition carload traffic database, by simulating empty movements that would accompany the loads in this traffic database, and by combining loaded and empty movements and creating data files suitable for input to ALK's computer blocking model, the Automated Blocking Model - Graphics Edition (ABM-GE).

ALK received electronic copies of the traffic files created by CSX personnel in other traffic studies. These include the automotive traffic study described in the verified statement of Dale Hawk, the coal, coke and iron traffic study described in the verified statement of Raymond Sharp, and the truck and barge to rail diversion study described in the verified statement of Christopher Jenkins. ALK coded these traffic files to its railroad network database and combined them with the traffic files created in the General Merchandise and CCIO Remainder Studies.

The proposed transaction offers many opportunities for efficiencies in the management and distribution of empty rail cars. These efficiencies arise from the common management of larger fleets of rail cars, opportunities to reposition empty cars between CSX locations and acquired Conrail locations, and opportunities to move empty cars over shorter routes of the expanded CSX system. All three factors contribute to reducing empty miles and car cycle times. In addition, the Operating Plan for the expanded CSX system must make provision at yards and on trains for empty cars as well as loaded cars. Development of the Operating Plan required a traffic file containing both loaded and empty movements.

To estimate the empty movements of the expanded CSX system, ALK developed an Empty Car Distribution Simulation Model (ECDS). This model simulated the empty

movements that would likely be required to serve, and that would arise as a consequence of, the loaded movements in the consolidated loaded traffic database. The ECDS considered car type, last commodity carried, car ownership, time period, foreign return outlets, and SCO 90/100 foreign return rules. The ECDS generated a waybill-like record for each empty movement.

ALK tallied summary statistics based on the ECDS results and delivered these to the CSX car management team. For the Operating Plan team, ALK combined the ECDS-generated empty movements with the loaded traffic database. ALK coded and aggregated movements to create input files for the ABM-GE.

Appendix I: Resume of Howard A. Rosen

Howard A. Rosen

Education

Master of Business Administration with Distinction, Wharton School, University of Pennsylvania, Philadelphia, PA, 1996. Palmer Scholar.

Bachelor of Science in Engineering with Honors, Princeton University, Princeton, NJ, 1980. Major in Civil Engineering with certificate in Transportation Studies.

Professional Experience

April 1988 - present: Vice President, ALK Associates, Inc., Princeton, NJ

- Directed strategic planning studies of traffic and financial effects of a Union Pacific Railroad merger with Southern Pacific and additional rail industry restructurings (1994-1996).

- Project manager for maintenance and enhancement of a locomotive distribution system at Union Pacific Railroad. System uses optimization and heuristic techniques to recommend the locomotive consists for all trains and to route locomotives due maintenance to shops (1991-1997).

- Directed strategic planning studies of market share effects of a Burlington Northern Railroad merger with Atchison, Topeka and Santa Fe Railway and additional rail industry restructurings (1994-1995).

- Directed detailed relational database design and processing logic design for computer programs to determine proper rail car classification sequence as part of a real-time trip planning system at Norfolk Southern Railway. Applied CASE techniques for logical data modeling and processing logic flowcharts. Supervised ALK assistance to Norfolk Southern for program implementation and database assembly (1992-1995).

- Directed study of opportunities for new intermodal services for a major US railroad (1992-1993).

- Product Manager for two ALK software products: Princeton Transportation Network Model and Graphic Information System (PTNM/GIS), and Automated Blocking Model - Graphics Edition (ABM-GE). Responsible for development, user support, sales, and marketing (1987-1993).

- Prepared specifications for a drayage/truck service planning system for a major US intermodal transportation services company (1992).

- Designed and prototyped a rail and truck competitive analysis system for a major US railroad (1992).

• Directed requirements analysis, relational database design, software design, user interface design, computer system interface design, hardware evaluation and selection, testing and quality control for a Motive Power System for the operations management center of the Canadian National Railway. Applied CASE tools for entity-relationship modeling, logical and physical data modeling, data flow diagrams, and state-transition diagrams (1988-1991).

• Directed port of the Princeton Transportation Network Model and Graphic Information System (PTNM/GIS) and Automated Blocking Model - Graphics Edition (ABM-GE) from IBM mainframe environment to IBM PC environment under DOS (1990-1991).

• Supervised design and implementation of batch rail and highway mileaging routines as part of cost accounting system at Norfolk Southern Railway (1988-1989).

• Directed quarterly analyses of traffic volumes to determine lane balance and backhaul pricing factors for a major US tank truck carrier (1982-1989).

• Analyzed 20 million covered hopper rail car movements on the Burlington Northern Railroad to assess utilization and productivity for railroad owned cars, private cars under BN control, and private cars under shipper control. Submitted analysis to the Interstate Commerce Commission Shipper Committee, OT-5 (SCOT-5) proceeding. Methodology and findings were adopted by the Commission in its ruling (1988).

August 1985 - March 1988: Project Manager, ALK Associates, Inc., Princeton, NJ

• Prepared traffic diversion forecasts for Rio Grande Industries acquisition of the Southern Pacific Transportation Co. Converted forecasts into railroad operating statistics and prepared exhibits for submission to the Interstate Commerce Commission (1987-1988).

• Converted traffic diversion forecasts to railroad line densities and operating statistics for Norfolk Southern Railway acquisition of the Centralia-Birmingham line from the Illinois Central Gulf Railroad. Results and exhibits submitted to the Interstate Commerce Commission (1987-88).

• Directed port of the Princeton Transportation Network Model and Graphic Information System (PTNM/GIS) from IBM mainframe environment under VM/CMS to IBM mainframe environment under MVS/TSO (1987).

• Prepared traffic diversion forecasts for Union Pacific Railroad acquisition of the Missouri-Kansas-Texas Railroad including protective conditions and remedies requested by competitor railroads. Converted forecasts into railroad operating statistics for submission to the Interstate Commerce Commission (1986-1987).

• Performed analyses and developed software to formulate a railroad operating plan (blocking plan and train schedules) for combined Chessie and Seaboard Railroads (1986-1987).

• Prepared maps of competitive services for coal transportation to electric utility power plants as part of lobbying efforts against modification to deregulation provisions of the Staggers Act (1987).

• Calculated highway miles for rail shipments in Interstate Commerce Commission Waybill Samples (1983-1987).

• Developed logistics cost model for doublestack container on flat car rail services. Applied model to a series of doublestack service scenarios for a major US railroad (1986).

• Developed software for mapping sales territories and grouping territories into districts and regions while satisfying objectives for geographic compactness and sales potential. Applied software to several pharmaceutical sales force realignment projects (1982-1985).

• Conducted analyses of actual and potential optimal deployment of a fleet of insulated boxcars (1983-1985).

• Analyzed Interstate Commerce Commission Waybill Sample data to determine competitive position of the Ann Arbor Railroad (1985).

May 1981 - July 1985: Programmer/Analyst, ALK Associates, Inc., Princeton, NJ

• Performed traffic diversion studies and railroad operations analyses for acquisition and independent operation of the Canada Southern Railway and Detroit River Tunnel (1984).

• Prepared study of US rail intermodal traffic history and prospects for a major Japanese ocean shipping line (1984).

• Performed traffic diversion studies for Burlington Northern Railroad, including impact of the Union Pacific/Missouri Pacific/Western Pacific merger and possible protective conditions and remedies that might be sought by Burlington Northern (1983).

• Evaluated for the Federal Railroad Administration the extent of rail transportation captivity faced by coal producers and coal consuming electric utilities based on Interstate Commerce Commission Waybill Samples and Federal Energy Regulatory Commission Form 423 data files (1983).

• Analyzed traffic and operating impacts of alternative terminal siting plans for a major US truckload carrier (1983).

September 1980 - March 1981: Transportation Engineer, Energy and Environmental Analysis, Inc., Arlington, VA

• Evaluated emerging automotive emission control technologies and their effects on fuel economy and emissions (1980).

Professional Affiliations

Council of Logistics Management (CLM)

The Institute for Operations Research and the Management Sciences (INFORMS)

Transportation Research Forum (TRF)

Publications

(with M. Hornung, D. Hunt, and D. Seneko) *Improvement in Motive Power Utilization Through Management Decision Support Systems.* Proceedings of the International Heavy Haul Association 1994 Mini-Conference, Omaha, NE, June 1994.

(with M. Hornung, J. Szymkowiak, and D. Dion) *Realizing Benefits from ATCS Using a Motive Power Information and Management Support System.* Transportation Research Record No. 1314, 1991, pp. 44-49.

(with C. Van Dyke, and P. Mayewski) *An Introduction to the Line Capacity Analysis System*, Transportation Research Forum Annual Forum, New Orleans, LA, November 1991.

(with M. Hornung, J. Szymkowiak, and D. Dion) *Design and Prototyping of a Motive Power Information and Management Support System.* Computer Applications in Railway Planning and Management. T. K. S. Murthy, et. al., eds., Computational Mechanics Publications, Boston, 1990.

(with R. Kling, D. Helmer, and W. Doughty) *Network Databases versus Mileage Tables,* Transportation Research Forum Annual Forum, Long Beach, CA, October 1990.

(with M. Hornung, J. Szymkowiak and D. Dion) *User Interface Design for a Rail Motive Power Management System*, Transportation Research Forum Annual Forum, Long Beach, CA, October 1990.

Appendix II: Advanced Traffic Diversion Model

II.1 Overview

The Advanced Traffic Diversion Model (ATD) is a simulation of railroad and shipper behavior that predicts the traffic re-routing and diversion effects of restructurings of the North American railroad system. The ATD contains a flexible methodology that enables analysis of a wide variety of railroad restructurings, including mergers, line transfers, new line construction, and abandonments.

This Appendix will describe the methodology and assumptions of the ATD in generic terms. Subsequent appendices will describe the specific application of the ATD to the three studies that are the subject of this Verified Statement.

The ATD uses three data inputs:

1. A traffic file containing a set of pre-transaction movements for which the ATD will assess the effects of the transaction.

2. A railroad network database describing the pre-transaction network configuration.

3. A railroad network database describing the post-transaction network configuration.

The primary output of the ATD is a traffic file recording post-transaction services for the file of pre-transaction movements. This post-transaction traffic file is then the basis for tallies of summary statistics on the effects of the transaction.

The ATD uses a 5 step analysis process:

1. Define the scope of the study, including the relevant origin-destination pairs and service types.

2. Determine candidate post-transaction routes for each origin, destination and service type combination.

3. Calculate post-transaction market share for each candidate route.

4. Assess re-routes and diversions: allocate traffic to candidate routes based on calculated market shares.

5. Allocate revenue among carriers when traffic is allocated to multi-carrier post-transaction routes.

The remaining sections of this Appendix will describe the ATD inputs, the processing logic of each analysis step, and ALK's process to calibrate the sub-models used for each analysis step.

II.2 ATD Inputs

II.2.1 Input Traffic File

The input traffic file represents the universe of traffic for which the ATD will assess the effects of a transaction. The file can be as small as one waybill or as large as several million waybills. The file must report the following attributes for each movement: origin station, origin Standard Point Location Code (SPLC), destination station, destination SPLC, origin carrier, destination carrier, all intermediate carriers, all junctions between carriers, number of carloads or units, net tonnage, total movement revenue, and revenue of each carrier in the route of the movement. Optionally, the file may contain additional

attributes such as business unit, commodity, car type, or other movement attributes. Traffic files for studies using the ATD are typically drawn from the Surface Transportation Board (STB) Waybill Sample or from railroad carriers' own waybill data.

II.2.2 Pre-Transaction Railroad Network Database

ALK maintains a computerized network representation of the North American railroad system. ALK uses this database, under contract to the U.S. Surface Transportation Board, to process the annual STB Waybill Samples. This work includes verifying the accuracy of information reported on each waybill, and enhancing waybills with attributes such as the mileage for each carrier's portion of each waybill. Additionally, more than one hundred railroads, shippers, and other clients use the database, as licensees of ALK's PC*Rail® and PTNM/GIS™ software products, for a variety of planning, marketing, operating, costing, and auditing functions.

The railroad network database contains links and nodes. Each link represents a segment of railroad track. Each node represents one or more freight stations or connections between track segments. For each link, the database catalogs the railroad(s) offering service on the segment, via ownership, or via either trackage rights or haulage agreement; the exact distance on the link, based on railroad timetables; whether the link is a mainline or a branchline, and the quality of the mainline or branchline.

For each node, the database catalogs the freight stations at the node in terms of Freight Station Accounting Codes (FSACs), and the interline junctions at the node in terms of Rule 260 junction codes.

The railroad network database also contains a table of corporate family relationships so that analysis can be performed based on individual AAR accounting entities, such as SP, SSW, SSWN and DRGW as separate entities, or based on an aggregated corporate family.

The 1995 version of ALK's North American railroad network database contains 32,954 links representing 205,806 miles of railroad route, and 30,447 nodes representing 52,792 freight stations and 3,548 interline junction locations. Figure II-1 is an overview map showing the scope of the network, and Figure II-2 is an enlargement of a small area illustrating its level of detail.

II.2.3 Post-Transaction Railroad Network Database

The post-transaction railroad network database is a copy of the pre-transaction database with link and node attributes and the corporate family table modified to represent the effects of the transaction.

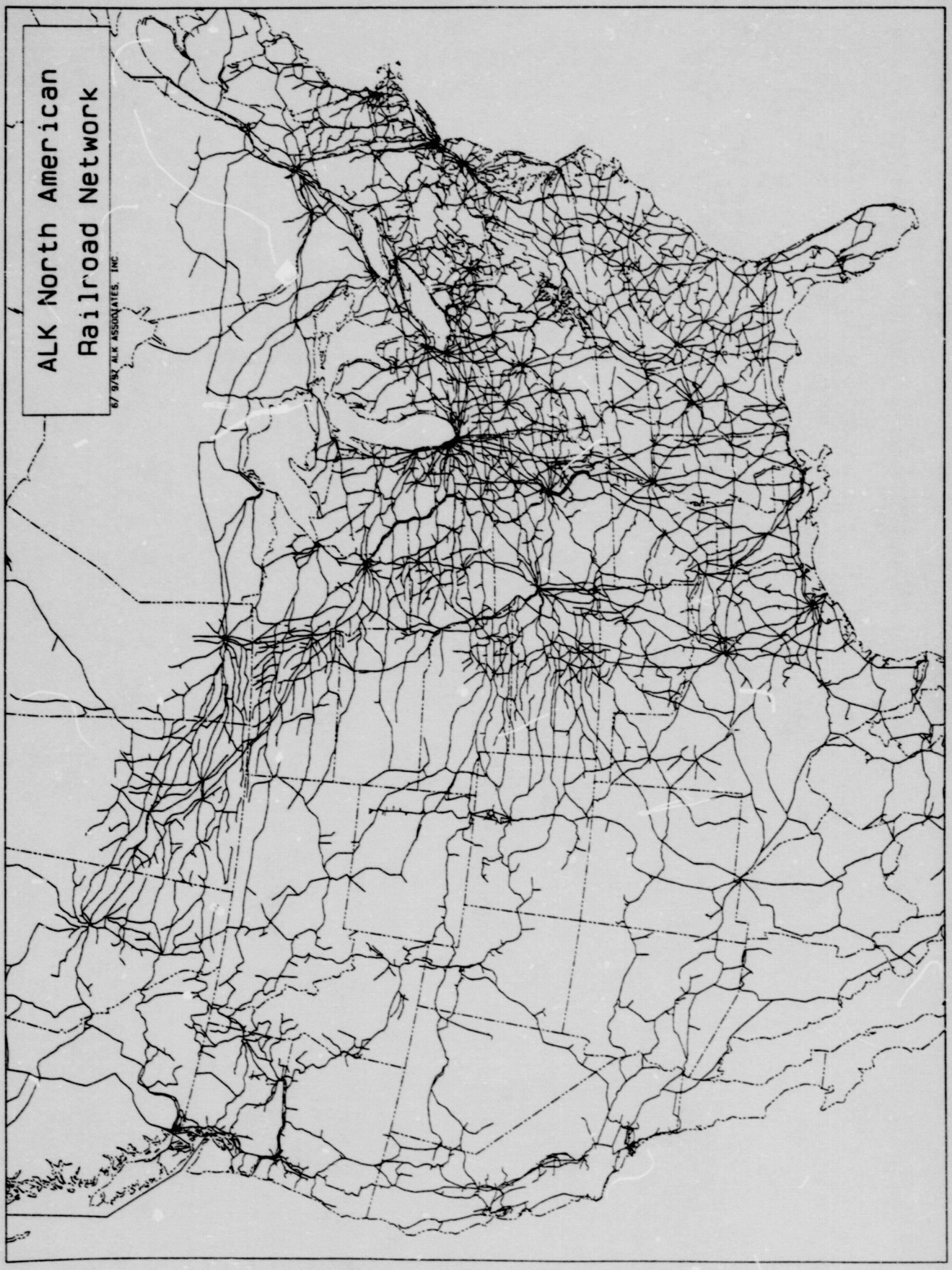
II.3 STB Waybill Sample

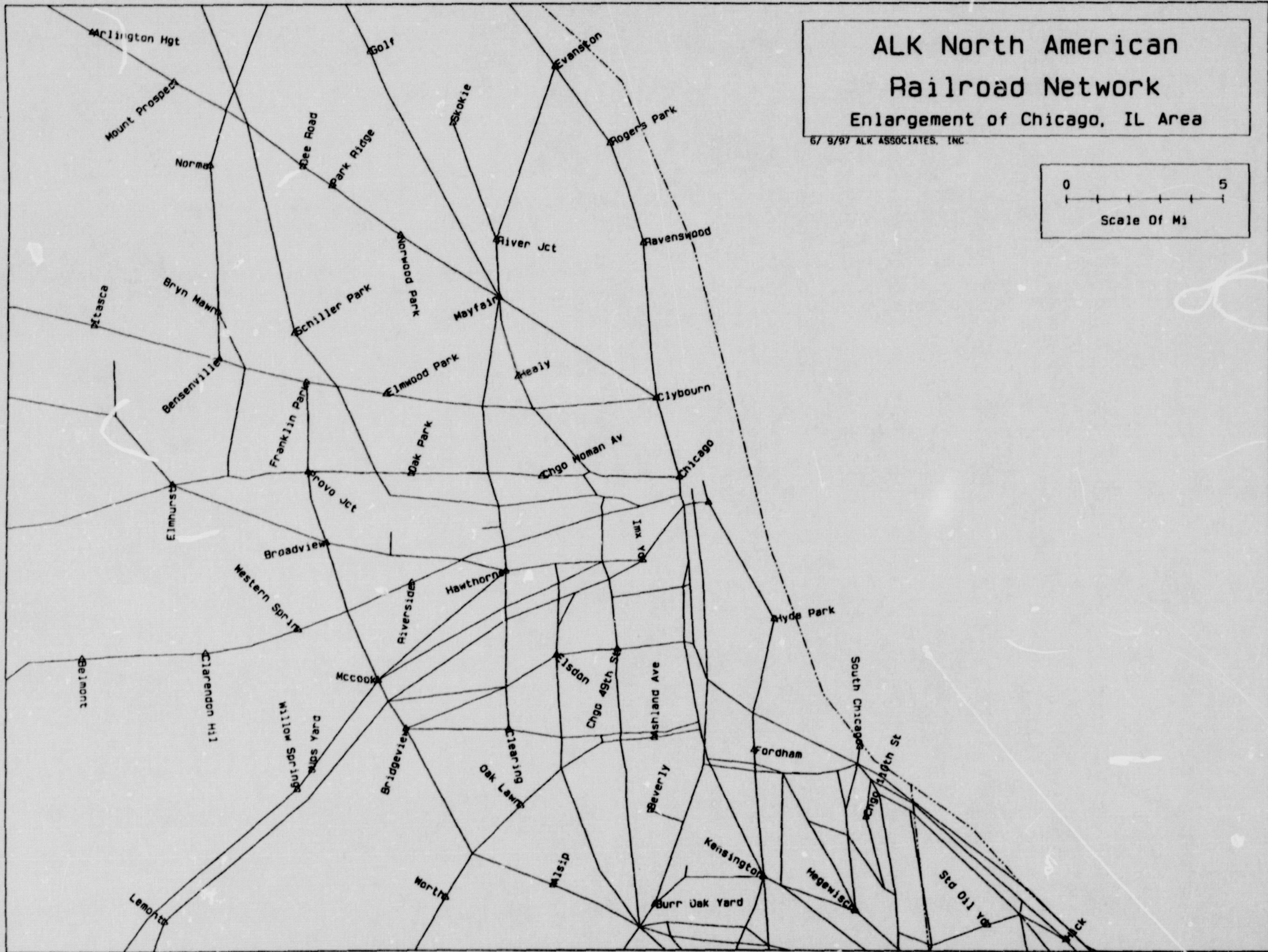
When the input traffic file is drawn from the STB Waybill Sample, the Sample is a direct input to the ATD. However, ALK also uses the Sample to calibrate the formulas used by the ATD components. Therefore, the Sample is also an indirect input to the ATD.

II.3.1 STB Waybill Sample Contents

The STB Waybill Sample contains comprehensive, detailed data on railroad traffic movements in the United States. The Interstate Commerce Commission (ICC), predecessor to the STB, began annual collection of a waybill sample in 1973. It required railroads to submit paper copies of all waybills with serial numbers ending in "01". Hence, the resulting data file was referred to as the "one percent sample". In 1984, the ICC adopted a stratified sampling technique that systematically samples multiple-car waybills at higher rates. These higher rates vary from 2.5% for single-car waybills to 50% for waybills reporting more than 100 cars. The new sampling method also permitted railroads to submit electronic copies of waybills instead of paper copies. The 1995 STB

Figure II-1


ALK North American
Railroad Network
6/ 9/92 ALK ASSOCIATES, INC



ALK North American
Railroad Network
Enlargement of Chicago, IL Area
6/ 9/97 ALK ASSOCIATES, INC
0
5
Scale Of Mi
Arlington Hgt
Mount Prospect
Golf
Evanston
Skokie
Dee Road
Park Ridge
Rogers Park
Norman
Norwood Park
River Jct
Ravenswood
Itasca
Bryn Mawr
Schiller Park
Mayfair
Bensenville
Elmwood Park
Healy
Clybourn
Franklin Park
Oak Park
Chgo Homan Av
Chicago
Elmhurst
Provo Jct
Imx Yd
Broadview
Western Spring
Hawthorne
Riverside
Hyde Park
Belmont
Clarendon Hill
Mccook
Elsdon
Chgo 49th St
Ashland Ave
South Chicago
Willow Spring
Sags Yard
Bridgeview
Clearing
Fordham
Chgo 149th St
Oak Lawn
Beverly
Kensington
Hegewisch
Std Oil Yd
Alsip
Worth
Burr Oak Yard
Lemont

Figure II-2

Waybill Sample contains 498,336 data records reporting 4,167,798 carload movements. These sampled movements represent 29,045,247 carloads after factoring by the inverse of the sampling rate for each sample stratum. All but 4,282 records were submitted electronically. Since 85.4% of the records are in the stratum that is sampled at a rate of 2.5%, the Sample is often referred to in shorthand as a "2.5% sample".

Since 1984, the Sample has been drawn from submissions by U.S. railroads that terminate at least 4,500 carloads per year. Most small railroads, especially the many shortlines established since 1981, are paid as switching carriers, with their large railroad connections handling their waybill accounting functions. The waybills for the traffic that terminates on these carriers are submitted by the larger railroad that handles the accounting. These relationships between large and small carriers minimize the amount of traffic that may be missed due to the 4,500 carload threshold.Prior to 1984, the Waybill Sample specifically excluded traffic to or from Canada. Since 1984, the Waybill Sample includes traffic originated in Canada that terminated in the United States, and traffic terminated in Canada on U.S. railroads. However, the Sample continues to omit traffic that terminated in Canada on Canadian railroads. Traffic waybilled to a border crossing location (typically for re-billing) is captured in the Sample since the destination reported on the waybill will be a U.S. location. A small amount of U.S.-Canada traffic is re-billed at the border. In contrast, nearly all U.S.-Mexico traffic is re-billed at the border. Hence, Mexico-bound traffic is included in the Sample with the border crossing as the U.S. destination.

Each data record in the STB Waybill Sample contains more than 150 items of information about a single traffic movement during the sample year. This information includes the commodity, type of car, number of cars, tonnage, and revenue. Of particular interest to a traffic diversion study is the full description of the route, including the origin and termination locations, the origin and termination carriers, and the sequence of

interline junctions and overhead carriers, if any. ALK uses this full route information to calibrate and verify the routes generated by the ATD.

II.3.2 Activity Matrices

From the STB Waybill Sample, ALK builds tables that catalog the railroads able to serve the shippers and consignees at the stations associated with each node of the railroad network. ALK calls these tables Activity Matrices. ALK builds a separate table for each of four service types (intermodal, assembled autos, bulk commodities, and general merchandise). With the Activity Matrices, ALK distinguishes railroads operating through a node from railroads able to serve customers at the node. A railroad having trackage rights over a host railroad typically does not have the right to serve shippers and consignees along the line of track. Railroads provided with haulage service by another railroad are usually limited to serving certain commodities at certain locations. Lastly, a railroad may have a freight station at a location, but not be able to serve any shippers due to lack of a switching arrangement with the carriers serving those shippers' sidings.

To build the Activity Matrices, ALK considers a carrier able to originate or terminate traffic at a location if that carrier was observed in the Sample to originate or terminate more than a token amount of traffic for that location for a given service type. For general merchandise and bulk commodities, the threshold is a minimum percentage of the traffic at the location, based on the number of carriers with traffic at the location, as follows:

Number of carriers	Minimum % traffic
2	3.0%
3	2.5%
4	2.0%
5	1.5%
6	1.0%
7 or more	0.5%

For intermodal and assembled autos, the threshold is 150 trailers/containers or cars, respectively, or 10% of the total number of originations and terminations at the location, whichever is smaller.

II.4 ATD Process

II.4.1 Step 1: Study Scope

The movements contained in the input traffic file define the scope of a study using the ATD. Typically, these movements are selected taking into consideration the geography and the type of traffic that may be affected by the transaction. In general, it is advisable to define a generous scope, since the ATD can assess movements and markets as unaffected by the transaction. With a restrictive scope, a study might omit movements potentially affected by the transaction. However, as the scope grows larger, the input traffic file will grow larger. This will increase the data processing burden associated with a study.

ALK typically defines a study scope in terms of geographic zones in which movements may be affected by the transaction, and as one or more of four service types: intermodal, assembled autos (also called multi-levels or auto racks), bulk commodities (such as coal, coke, ore and grain), and general merchandise. ALK defines geographic zones based on Standard Point Location Codes (SPLCs) using the first two-digits of a SPLC to include or exclude locations in or from the study. ALK categorizes traffic by service type based on a combination of the commodity, car type and intermodal service flag contained on a movement record.

II.4.2 Step 2: Candidate Routes

The term "market", as defined in the main body of this Statement, refers to an origin, destination and service type combination. The process to generate candidate routes for

each market in the input traffic file contains two sub-steps: 1) identify origin railroad-destination railroad pairs that can offer service in the market, then 2) generate a post-transaction service route for each railroad pair.

II.4.2.1 Identify Railroad Pairs

For each market in the input traffic file, ALK uses the Activity Matrix for the market's service type to identify all the carriers serving the market origin and all the carriers serving the market destination. With these two sets of carriers, we create all origin carrier-destination carrier combinations. For example, if the origin is served by three carriers and the destination by two carriers, we create six origin carrier-destination carrier combinations.

Combinations unlikely to represent a real service offering are discarded. Discarded combinations include:

- Origin and destination railroads are different but origin and destination are the same location.
- Origin and destination railroads are different but the origin railroad can offer a local service in the market.
- Origin and destination railroads are different but the destination railroad can offer a local service in the market.
- Origin and destination railroads are members of different corporate families but the corporate family of the origin railroad can offer a local service in the market.

- Origin and destination railroads are members of different corporate families but the corporate family of the destination railroad can offer a local service in the market.

These exclusions preempt the possibility that study results will allocate traffic to combinations unlikely to be real service offerings. They also reduce the data processing burden in subsequent analysis steps.

II.4.2.2 Quantanet Intercarrier Routing Model

For each surviving origin carrier-destination carrier combination in each market, ALK generates a post-transaction route. This task uses a sub-model called the Quantanet Intercarrier Routing Model (Qnet).

The Qnet predicts the most likely route a shipper would select for a shipment given its origin, destination, service type, origin railroad and destination railroad. The Qnet incorporates the major factors that explain shipper and carrier behavior in choosing routes. These are:

- Distance - shippers and carriers will favor routes with shorter distances, because major costs of railroad service (crew, equipment, and fuel) depend on distance traveled.

- Quality of track - shippers and carriers will favor routes over mainlines rather than branchlines, because mainline service operates more frequently, at higher speeds, and (for carload traffic) for a longer average distance between intermediate switches.

- Ownership of track - shippers and carriers will favor routes over lines owned by the operating railroad rather than routes where the operating railroad has trackage

or haulage rights, because service on owned lines is more reliable than service via trackage or haulage rights.

- Number of interline junctions - shippers and carriers will favor routes with fewer interline junctions, because interline junctions increase transit time, and complicate train service coordination, equipment supply, joint rate quotation, shipment tracking, and loss and damage claims.

- Quality of interline junctions - shippers and carriers will favor routes with higher quality interline arrangements, such as run-through trains, over routes with lower quality interline arrangements, such as less than daily switching, because the service over the higher quality junctions is faster, more frequent, and more reliable.

- Relative ability of the originating carrier to obtain the long haul - carriers will seek to influence the shipper's route selection to maximize the carrier's share of the total shipment revenue. A carrier's revenue share primarily depends on the carrier's share of the route's distance, so carriers encourage shippers to specify the route giving them the longest share of the haul. The originating carrier has an advantage in influencing shipper route selection over overhead and terminating carriers because it usually solicits the shipper, provides the equipment to the shipper, and may physically switch the shipper.

II.4.2.2.1 Quanta-networks

To implement the Qnet, ALK transforms the post-transaction railroad network database into a series of sub-networks connected by interline junctions. Each sub-network contains the links and nodes of one railroad carrier. The sub-networks are connected to each other by "junction links" at the locations where pairs of carriers interchange traffic. Figure II-3 is a graphic representation of three carriers and their interline junctions. Each

carrier is drawn in a separate "plane," and the interline junctions are represented by vertical links connecting the planes. The term "Quantanet" derives from the similarity of this representation to the quantum theory in physics. ALK refers to this transformation of the railroad network database as a "quanta-network". ALK creates a separate quanta-network for each service type in the input traffic file.

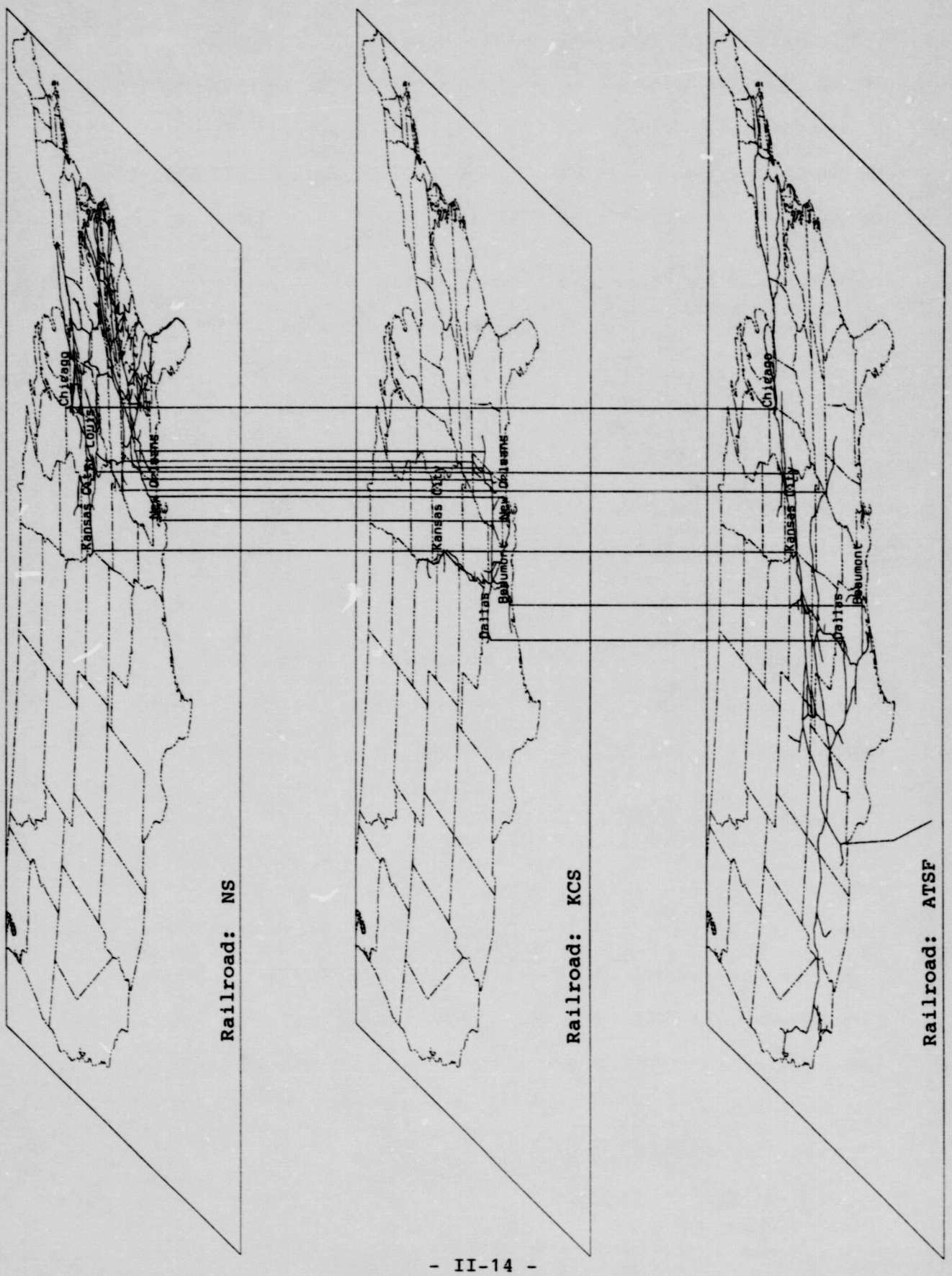
A quanta-network contains two types of links: track links and junction links. The track links represent the physical segments over which trains operate. The junction links represent connection points or junctions between railroads. Each link in a quanta-network has an associated impedance. The impedances for the track links in the sub-networks for each carrier represent the "cost" of traversing a segment of track. This cost is the product of the link's distance times its mainline/branchline classification. These classifications vary in value from 1 (for "A" mainlines) to 4 (for "B" branchlines) with a few higher values for barge and float operations.

Junction links are assigned to one of four categories based on the level of service provided by the interchanging carriers at the location represented by the link. In order of decreasing level of service, these four categories are:

• Run-through trains - the forwarding railroad delivers an intact train to the receiving carrier. The train stops only momentarily, if at all, to change the crew and, in some cases, the locomotives. Typically, the run-through train has originated at an interior yard on the forwarding carrier and will operate through to an interior yard on the receiving carrier.

• Through or swapped block - the forwarding railroad interchanges blocks of traffic it has classified for interior locations on the receiving carrier. The receiving carrier will combine the received blocks with other traffic to assemble a train, but will not reclassify the received traffic at the interchange location.

Figure II-3


Railroad: NS
Chicago
Kansas City
New Orleans
Railroad: KCS
Chicago
Kansas City
New Orleans
Beaumont
Dallas
Railroad: ATSF
Chicago
Kansas City
Beaumont
Dallas

• Daily or better switching - two carriers interchange traffic on a regular basis, at least 5 days per week, but the forwarding carrier does not block the traffic for interior locations on the receiving carrier. Hence, the receiving carrier must classify the traffic at the interchange location before moving it onward to interior locations.

• Less than daily switching - two carriers interchange traffic on an infrequent basis.

To assign an impedance to each junction link, ALK associates a value representing an equivalent number of 'A' mainline track miles to each level of service category. For example, if the value 350 is associated with the run-through train level of service, this indicates that the cost of interchanging a car at this type of junction is equivalent to the cost of moving a car 350 miles on 'A' mainline track. All junction links assigned to the run-through train level of service category would then acquire 350 as their impedance value.

II.4.2.2.2 Generating routes

The Qnet generates a route for each origin, destination, origin railroad and destination railroad, and service type combination by performing a minimum path calculation using the quanta-network associated with the service type. The path starts at the origin location in the sub-network for the origin railroad and ends at the destination location in the sub-network for the destination carrier. The minimum path calculation finds the lowest impedance path, considering track impedances and junction impedances, connecting the origin to the destination. As part of the minimum path calculation, track link impedances on the sub-network of the originating carrier are discounted by a factor that represents the relative ability of the originating carrier to long haul traffic.

II.4.2.2.3 Discarding routes

The process described above that identifies origin and destination railroad pairs for markets can generate a large number of combinations. The Qnet will generate a route for every combination, yielding a large number of candidate routes. This is particularly true for markets to or from locations that are served by many carriers. For example, for the Chicago-St. Louis general merchandise market, there are over 150 possible combinations of origin and termination carriers.

Prior to calculating market shares for candidate routes, ALK employs a second set of screens to eliminate routes that are unlikely to attract traffic. Routes with any of the following characteristics are discarded:

- The originating railroad forwards to another carrier at the origin, the receiving carrier is not in the same corporate family as the originating carrier, and the receiving carrier can serve the origin directly

- The terminating railroad receives from another carrier at the destination, the forwarding carrier is not in the same corporate family as the terminating carrier, and the forwarding carrier can serve the destination directly.

- The route involves a combination of partner railroads and other railroads, and there is another route in the market that is local to the partner railroads. (Partner railroads include all members of a corporate family plus railroads closely allied with each other, such as UP and CNW prior to their merger.)

- The route involves an overhead carrier from a different corporate family than the originating or terminating carrier, the overhead carrier is the originating or terminating carrier in another route in the market, and the route where that carrier is

an overhead carrier is not 20% or more shorter than the best route where it is an originating or terminating carrier.

- The number of inter-family junctions is 3 or more greater than the minimum for the candidate routes in the market.

- The number of inter-family junctions is 2 more than the minimum for the candidate routes in the market, and the distance is 20% or more greater than the shortest candidate route in the market.

- The number of inter-family junctions is 1 more than the minimum for the candidate routes in the market, and the distance is 60% or more greater than the shortest candidate route in the market.

- The number of inter-family junctions is equal to the minimum for the candidate routes in the market, and the distance is 120% or more greater than the shortest candidate route in the market.

II.4.2.2.4 Calibrating quanta-network impedances

ALK reviews and updates its railroad network database on an on-going basis to reflect changes in the railroad industry, in terms of carriers operating over a route, route mileage, and mainline/branchline classification. ALK sets the mainline/branchline classification for each service type on each track link to reflect actual railroad service on the link. ALK learns about actual service from a variety of sources, including published schedules, train briefs, published articles and testimony, and formal and informal contacts with ALK clients.

ALK sets junction link impedances relative to a fixed set of track link impedances. ALK uses the STB Waybill Sample to tally the volume of traffic by service reported as interchanged at each junction. Based on these volumes, ALK assigns each junction to

one of the level of service categories presented above, associating higher traffic volumes with better level of service categories (and, thus, a lower impedance).

ALK used the 1995 STB Waybill Sample to calibrate junction link impedances using the following procedure:

- For each service type, extract the set of interline junctions reported in the STB Waybill Sample. Each junction was identified by location, the pair of interchange carriers, and the annual unit volume of loaded traffic in each direction (vans for intermodal, carloads for other traffic).

- Adjust the loaded volumes to account for empties. For intermodal, the empty volume was assumed to be the difference between the loaded volumes in the two directions. For the other service types, the empty volume in a given direction was assumed equal the loaded volume in the other direction. The actual loaded and assumed empty volumes were combined to obtain an annual volume of loads and empties by direction for each junction.

- Divide the unit volumes for intermodal by two to convert to carload equivalents.

- Divide the one-way volume of loads and empties by 300 to obtain an average daily volume of loads and empties.

- Eliminate junctions with less than 0.5 cars per day (less than 150 cars per year), except where required to connect a shortline railroad to the network.

- Classify surviving junctions into four types, based on the average daily volume:

  - Run-through: greater than 50 cars/day

  - Through block: 20 to 50 cars/day

- Daily switching: 5 to 20 cars/day

- Less than daily switching: 0.5 to 5 cars/day

The volume cutoffs were derived based on a combination of ALK's general knowledge about average train and block sizes and specific knowledge of particular run-through junctions.

II.4.2.2.5 Measures of model quality

ALK measured the quality of the Qnet using a variety of statistics that compare model results to waybills from the STB Waybill Sample. The statistics were selected to measure not only how often the model was "perfect" in matching Sample waybills, and how often it was at least close, but also to verify that when the model did not replicate a Sample waybill it was not biased in an overall sense, nor by geography or carrier. The measures of overall quality were:

- Percent of traffic where the model route exactly matched the route in a Sample waybill. A route matched exactly if the number of junctions, specific junction locations, and specific railroads were identical.

- Percent of traffic where the sequence of specific railroads matched exactly.

- Percent of traffic where the number of interline junctions matched exactly.

The measures ALK used to verify that the model was unbiased when it could not match the Sample waybill route were:

- Distribution of the difference between the number of junctions in Sample waybills and the number of junctions in the model generated routes.

• Distribution of the difference between the route distance for Sample waybills and the distance for the model generated routes.

• Distribution of traffic using the four types of interline junctions, comparing the difference between the Sample volume and the model generated volume.

• Absolute difference in traffic using individual interline junctions.

The quality statistics were tabulated for four traffic units of measure: routes, units (vans for intermodal, cars for other service types), net tonnage, and total revenue. The best overall results were found when junction impedances (in units of "A" mainline miles) were set to the following values:

Type of junction	Impedance miles
Run-through	350
Through block	450
Daily switching	550
Less than daily switching	650

A quanta-network also includes junctions between railroads in the same corporate family that are separate waybill accounting entities. These intra-family junctions have a nominal impedance value of one-tenth of the values given above.

II.4.2.2.6 Qnet quality

Overall, the Qnet does an excellent job of generating the routes reported in the 1995 STB Waybill Sample. For 89% of the general merchandise carloads, the model route matched the Sample route exactly. The following table summarizes, for units, the quality of the model for general merchandise.

	Percent of Carloads
All junction locations and railroads match	89.2%
All railroads match	95.0%
The number of junctions in the route matches	96.5%

II.4.3 Step 3: Estimate market shares

At this point in the ATD processing, markets have been identified, network databases have been modified to represent the scenario being studied, the candidate routes that would serve the selected markets have been generated, and unlikely candidates have been discarded. The next step is to estimate the market share that each surviving candidate route is likely to attract.

II.4.3.1 The market share equation

The ATD uses a conditional logit market share equation with three independent variables (impedance, number of inter-family junctions, and trackage/haulage distance ratio)[1]. The market share equation is:

$$MS_i = \frac{e^{\beta_1 I_i + \beta_2 J_i + \beta_3 T_i}}{\sum_{i=1}^{n} e^{\beta_1 I_i + \beta_2 J_i + \beta_3 T_i}}$$

where:

MS_i is market share for route i

I_i is impedance for route i

[1] The conditional logit form addresses the criticisms made by the STB and others in Finance Docket No. 32760.

J_i is number of inter-family junctions for route i

T_i is ratio of distance on track operated via trackage/haulage to total route distance

β_1 is a coefficient for the impedance variable calibrated for each service type using the STB Waybill Sample

β_2 is a coefficient for the junction count variable calibrated for each service type using the STB Waybill Sample

β_3 is a coefficient for the trackage/haulage variable calibrated for each service type using the STB Waybill Sample

e is the constant 2.71828.....

n is the number of surviving candidate routes in a market

The ATD applies this equation to the surviving candidate routes in each market to calculate the market share of each route.

II.4.3.2 Calibration of the market share equation

ALK calibrated the coefficients β_1, β_2 and β_3 using actual market share observations from the 1995 STB Waybill Sample. ALK assembled a database for each service type where each record consisted of the origin and destination (defining the market), route (carrier-junction sequence), historical market share of the route (cars on the route divided by cars in the market), route impedance, number of inter-family junctions, and ratio of trackage/haulage distance to total route distance. The database included all markets from the Sample. Markets were weighted by the number of cars (or trailers/containers for intermodal) in the market. This database was used to calculate the values of β_1, β_2 and β_3 for each service type that maximize the log likelihood function given by:

$$\ln(L) = \sum_i \sum_j (d_{ij} * \ln(prob(d_{ij} = 1))$$

where:

ln is the natural logarithm (inverse of e)

d_{ij} is 1 if car *i* chooses route *j*, and 0 otherwise

The result of the calibration is:

Service Type	β_1	Z-Statistic	β_2	Z-Statistic	β_3	Z-Statistic
Intermodal	-0.0005134	14.41	0	n/a	-1.5585	2.85
Multi-levels	-0.0003048	2.62	0	n/a	0	n/a
Bulk	-0.0005040	4.33	0	n/a	0	n/a
General Merchandise	-0.0002775	13.12	-0.6860	5.81	-0.7209	3.15

The Z-statistic provides a measure of the statistical significance of a coefficient. A Z-statistic of 1.96 or higher indicates that the coefficient is statistically significant at a 5% confidence level. Coefficients with a Z-statistic of "n/a" were tested but found not to be statistically significant at a 5% confidence level. All coefficients are negative, meaning that market share is negatively correlated with impedance, with the number of inter-family junctions, and with the trackage/haulage ratio. The higher the impedance, the lower the market share. The higher the number of inter-family junctions, the lower the market share. The larger the trackage/haulage ratio, the lower the market share.

II.4.4 Step 4: Assess re-routes and diversions

ALK applies the market share estimates for candidate routes to the input traffic file with a "filtering" process. In this process, a candidate route is eligible to have traffic allocated to it if:

• the candidate route contains evidence of the transaction under study; for example, the candidate route uses portions of UP and portions of SP, and the transaction under study is the UP-SP merger; or

• some or all pre-transaction routes in a market are obsolete for the transaction under study; for example, all pre-transaction routes in a market are Conrail local, and the transaction under study is the CSX/NS joint acquisition of Conrail.

When a market has candidate routes that are eligible for traffic to be allocated to them, the filtering process determines the amount of traffic to be allocated to each eligible route. When a market has no eligible routes, pre-transaction routes are carried forward unchanged. When a market has no eligible routes, and all pre-transaction routes are obsolete, the market is marked as abandoned.

The traffic allocation process uses a complex set of rules that compares the market share estimate of the eligible route to the pre-transaction market shares of the railroads in the eligible route. The eligible route will replace pre-transaction routes involving railroads in the eligible route up to the level of the eligible route market share or the pre-transaction market share, whichever is greater. When the total market share of eligible routes is less than 100%, and all pre-transaction routes have not been replaced by eligible routes, the surviving pre-transaction routes are carried forward retaining unallocated traffic in the market in proportion to the pre-transaction market share of each route.

The output file of the filtering process contains waybills for the post-transaction service for all the traffic in the input traffic file except abandoned markets.

II.4.5 Step 5: Allocate revenue

The output of the "filtering" process is a file of waybill records containing new post-transaction routes, with the units, tons, and total revenue allocated to those routes, and old

pre-transaction with the remaining non-diverted units, tons, and total revenue on those routes.

The final step of the ATD estimates the mileage of each railroad's service on each route in the output waybill file, and allocates movement revenue among the participating carriers based on these mileages. The mileages are also used to tally car-mile and net ton-mile statistics. As a byproduct of the mileage estimation process, ALK creates the files needed for traffic density charts (flow maps), such as those contained in the main body of this verified statement.

ALK used the traffic flow program that is part of its PTNM/GIS software to compute the mileages and traffic densities. This program routes each waybill over the post-transaction railroad network database, calculates mileage by railroad, and accumulates traffic densities. This is the same traffic flow program that ALK uses to compute mileages on the STB Waybill Sample, under contract to the STB. It routes each waybill between adjacent pairs of origin, junction, and termination locations, using distance times mainline/branchline classification as the impedance. This is the track link portion of the impedance that was used by the Qnet to generate inter-carrier routes earlier in the ATD process.

Total revenue for a movement is allocated among the carriers in the route based on the estimated mileage for each carrier. The allocation depends on each carrier's share of the total route mileage, constrained by a minimum allocation for each carrier, and additional allocations for the originating and terminating carriers.

II.4.5.1 Revenue allocation process

Revenue allocation is a three-step process. First, each carrier in the route is assigned the number of mileage blocks to which that carrier is entitled. The formula for assigning mileage blocks is:

$$B_i = \text{int}\left(\frac{D_i}{S}\right) + C_o + C_b + C_d$$

where

B_i is the number of mileage blocks for carrier *i*

D_i is the distance on carrier *i*

S is a constant that is the size of the mileage block

C_o is a constant that is the number of extra blocks for the originating carrier, value is 0 unless carrier *i* is the originating carrier

C_b is a constant that is the number of extra blocks for a bridge (overhead) carrier, value is 0 unless carrier *i* is a bridge carrier

C_d is a constant that is the number of extra blocks for the destination (terminating) carrier, value is 0 unless carrier *i* is the destination carrier

int is a function that rounds up to the next highest whole number

Second, total number of mileage blocks for the route is tallied. The formula for summing mileage blocks is:

$$B_t = \sum_{i=1}^{n} B_i$$

where

B_t is the total number of mileage blocks

n is the total number of carriers in the waybill route

Finally, the revenue for each carrier is calculated as the total revenue for the waybill times that carrier's share of the total mileage blocks. The formula for calculating revenue is:

$$R_i = R_t \times \frac{B_i}{B_t}$$

where

R_i is the revenue for carrier *i*

R_t is the total revenue for the waybill

II.4.5.2 Calibration of constants

There are four constants in the revenue allocation formula:

S the size of a block, in miles

C_o the number of extra blocks for the originating carrier

C_b the number of extra blocks for each bridge (overhead) carrier

C_d the number of extra blocks for the destination (terminating) carrier

Prior to the work addressed in this verified statement, ALK had calibrated the four constants using a database of 1993 interline settled revenue waybills provided by a major Class I carrier. ALK tested various values for the constants using the allocation formula, and measured the quality of "fit" between the test results and the actual settled revenues on the waybills. The final values that were selected to use for allocating revenue were:

Block Size	25 miles
Origin carrier extra blocks	12 blocks
Overhead carrier extra blocks	3 blocks
Terminating carrier extra blocks	12 blocks

Appendix III: Waybill Sample Study

III.1 Overview

The Waybill Sample Study was conducted to allocate Conrail's 1995 traffic movements to CSX and NS based on the division of lines and access to facilities agreed to by CSX and NS, including the definitions of areas where CSX and NS would share assets. The Study determined post-transaction routes for Conrail's 1995 traffic. The Study results do not include estimates of diversions of other rail traffic to new CSX or NS services created by the transaction.

Study results are presented in the main section of this verified statement. This Appendix will present details concerning the traffic files used for the Study, assumptions specific to this Study, and how the ATD was applied to this Study.

III.2 Input Traffic Files

The Study was conducted using the 1995 STB Waybill Sample supplemented with waybills from Conrail's 1995 100% traffic tapes for movements terminated in Canada. These additional waybills will be referred to as the Canadian Supplement. The Canadian Supplement was added because the Waybill Sample omits waybills for traffic terminated in Canada by Canadian railroads. ALK processed waybill records from these two sources separately in parallel. Results were combined, and a double count, due to a small number of Conrail movements terminated in Canada that were present in the Waybill Sample, was netted out.

ALK segregated waybill records from each source into separate files for each of four service types: intermodal, multi-levels (assembled autos), coal/bulk including grain, and general merchandise. The service type for a waybill is determined by the car type and commodity of the movement. ALK applied the ATD separately to each file.

Prior to conducting the Study, ALK made a series of adjustments to the Waybill Sample and Canadian Supplement:

1. Intermodal movements to locations beyond the rail service network (including rail haulage agreements) of the terminating railroad were assumed to indicate substitute truck drayage for a portion of the movement. Waybills for such movements were adjusted to eliminate the truck drayage portion of the movement by replacing the destination with the terminating carrier's nearest intermodal terminal. Movement revenue was reduced based on an average revenue per trailer mile times the distance of the eliminated drayage movement. The same adjustments were made for movements originating at locations beyond the rail service network of the originating railroad.

2. Some interline rail movements are reported by the participating carriers on separate waybills instead of a single joint waybill. On the separate waybills, the location reported as the origin or destination is actually the junction with a connecting carrier. As a result, the waybills do not accurately represent the customer's complete traffic movement. This waybilling practice is called "rebilling". ALK identified combinations of service type, location and carrier pair for which rebilling seemed to be prominent and for which the pairings of separate waybills could be identified. ALK replaced the separate waybills with a new record reporting interline service. ALK made this adjustment for the following combinations:

   - Intermodal traffic at Council Bluffs, IA, Fremont, NE, and Omaha, NE between CNW and UP.

- Multi-level traffic at Council Bluffs, IA, Fremont, NE, and Omaha, NE between CNW and UP.

- Coal traffic at Topeka, KS between ATSF and UP.

- Coal traffic at Hagerstown, MD between Conrail and NS.

3. For some railroad companies with multiple railroad accounting entities or subsidiaries, such as the Guilford system, ALK substituted a single railroad designation for all occurrences of any member of the corporate family. ALK calls this process "familizing". As part of this process, ALK eliminated intra-family junctions from the waybill records. In the Waybill Sample data, ALK familized CNW and WRPI with UP, BM and MEC with ST, DWP with CN. ALK also converted CV into NECR.

4. In its development of the Waybill Sample for the STB, ALK assigns the origin and destination of each movement to the nodes in ALK's railroad network database that best represent the origin and destination locations on the reported railroads. Depending on the configuration of the rail network, the same location, representing the same customers, on different railroads could have different nodes. To better represent competitive access to traffic for the ATD, ALK reassigns some node numbers according to the rules below. ALK calls this process "aggregation".

   - All intermodal movements from or to locations within a Business Economic Area (BEA) are assigned to a single node representing the BEA.

   - All multi-level movements to destinations within a BEA are assigned to a single node representing the BEA.

- All multi-level movements from origins with the same 6-digit Standard Point Location Code (SPLC) are assigned to a single node representing the SPLC.

- All other movements from or to locations with the same 6-digit SPLC are assigned to a single node representing the SPLC.

Following these adjustments, ALK computed the distance of each railroad and estimated the revenue allocation of each railroad according to the adjusted record. This processing used the method of Step 5 of the ATD described in Appendix II.

To establish a base case for the Study, ALK further adjusted Conrail-participatory waybills in the Waybill Sample and Canadian Supplement to account for line divestitures and abandonments completed by Conrail during and since 1995. ALK applied the ATD to Waybill Sample movements to estimate new service routes for movements that could no longer use the 1995 reported routes due to these changes. ALK made equivalent changes manually to waybills in the Canadian Supplement.

To apply the ATD, ALK modified its railroad network database to delete Conrail service on divested and abandoned lines and to add new operator service on divested lines. In most cases, the new operator is a shortline railroad. In some cases, such as NS's acquisition of Conrail's Peoria line, the new operator is a major railroad. ALK modified the Activity Matrices to delete Conrail service at nodes divested and abandoned and to add new operator service at nodes acquired. These modifications were reviewed for accuracy by representatives of Conrail, CSX and NS.

For the "filtering" process that is part of Step 4 of the ATD, ALK determined the set of Conrail on-point/off-point pairs reported in the waybills that had become obsolete due to its configuration changes. When a waybill in an input traffic file reported one of these

obsolete on-point/off-point pairs, the filtering process allocated the traffic on that waybill to an eligible candidate route created by the ATD.

As a consequence of Conrail's divestitures and abandonments, ALK estimated that $64 million of Conrail revenue would be transferred to other carriers, including $7 million to CSX and $3 million to NS.

III.3 Assumptions

ALK conducted the Waybill Sample Study with the following assumptions in addition to the general assumptions presented in the main body of this statement:

1. Indiana Railroad (INRD) was treated as a member of the CSX corporate family for route generation, market share estimation and traffic allocation. It was excluded from tallies of CSX revenue changes.

2. Clearance restrictions in CSX's Virginia Avenue tunnel in Washington, DC and Howard Street tunnel in Baltimore, MD would be removed to permit a through route for multi-levels between Richmond, VA and Philadelphia, PA.

3. The Study's scope includes all markets in which the traffic files report Conrail-participatory waybills.

III.4 Application of the ATD

To apply the ATD to this transaction, ALK modified its railroad network database to describe the new, expanded configurations of CSX and NS. ALK created a fictitious CSX subsidiary called "CXCR" to be the owner and operating entity for Conrail lines acquired by CSX. ALK created a fictitious NS subsidiary called "NSCR" to be the owner and operating entity for Conrail lines acquired by NS. ALK modified the railroad network database to transfer Conrail lines to CXCR and NSCR. In shared asset areas,

and on lines where CSX and NS have granted trackage and haulage rights to each other, both CXCR and NSCR gain operating rights.

Similarly, ALK modified the Activity Matrices to assign Conrail's service at nodes to CXCR and NSCR. In shared asset areas, and at locations where CSX and NS have agreed to permit competitive access to Conrail customers, both CXCR and NSCR inherit Conrail's service at the node. The railroad network and Activity Matrix modifications were reviewed for accuracy by representatives of CSX and NS.

To compensate for a rebilling "problem", ALK also assigned operating rights to NSCR on UP's line from Sidney, IL to Salem, IL via St. Elmo, IL, and on IC's line from Tolono, IL to Effingham, IL. ALK determined that many Conrail waybills that report Salem, St. Elmo and Effingham as the movement origin or destination are actually waybills for the Conrail portion of an interline movement with UP or IC.[1] Since Salem, St. Elmo and Effingham are located on the Conrail line to be acquired by CSX, and in the absence of these NSCR operating rights, the ATD would allocate all traffic to and from these points to CSX. ALK judged that this would misrepresent the future competition for traffic that Conrail actually interchanged with UP and IC. By assigning these operating rights to NSCR, and by modifying the Activity Matrices to permit NSCR to originate and terminate traffic at these three locations, the ATD was able to allocate Conrail movements to and from these three locations to both CSX and NS.

In the quanta-networks created for the Study, ALK created intra-family junctions between CSX and CXCR at locations where new connections are planned and at locations where connections exist between CSX and its acquired Conrail lines. ALK created intra-family junctions between NS and NSCR at locations where new connections are planned and at

[1] Though Salem, IL is not located on Conrail, Conrail waybills nevertheless report traffic originated, terminated and interchanged with UP at Salem. For the purposes of this Study, Salem is treated as equivalent to St. Elmo.

locations where connections exist between NS and its acquired Conrail lines. ALK created junctions between CSX and NSCR at locations where junctions exist pre-transaction between CSX and Conrail and the location is acquired by NS. Baltimore, MD is an example of this type of location. ALK created junctions between NS and CXCR at locations where junctions exist pre-transaction between NS and Conrail and the location is acquired by CSX. Muncie, IN is an example of this type of location.

For the "filtering" process that is part of Step 4 of the ATD, ALK designated CXCR and NSCR as newly created railroads, and Conrail as a defunct railroad. This permitted the filtering process to identify ATD generated routes involving CXCR and NSCR as eligible candidate routes, and to identify pre-transaction Conrail routes as obsolete routes.

For this Study, ALK extended the filtering process to constrain the ATD results to Conrail participatory traffic only. In this extension, ALK applied the traffic allocation results of the standard filtering process to Conrail participatory waybills only, and reset all other movements to their pre-transaction routes and market shares. The extension also eliminated traffic allocations to interline routes involving CXCR or NSCR when the connecting carrier was not reported as a connecting carrier with Conrail in the pre-transaction routes. For example, if a pre-transaction market reports Conrail joint service with UP and not with BN, and the ATD generated CXCR joint routes with UP and BN, the filtering extension eliminates the joint route with BN because Conrail did not offer a joint service with BN in the market.

Detailed traffic allocation results on a route and market basis were reviewed by ALK and by John Williams, NS's traffic study consultant.

III.5 Distribution of Study Results

ALK created data files of waybill movement records incorporating Study results and delivered them to Bengt Muten, a NS traffic study consultant. ALK created data files

using two record formats. One format reports movements with post-transaction routes as generated by the ATD. The other format reports movements with pre-transaction routes, with Conrail-participatory movements flagged as allocated to CSX or NS or both. Movements allocated to both carriers are primarily Conrail local movements that will require interline service by CSX and NS after the division of Conrail lines.

ALK also created summary files of Study results and delivered these to the CSX teams conducting traffic studies for intermodal, assembled autos, and coal, coke and iron ore traffic. Records in these summary files contained a movement origin, a movement destination, the percentage of Conrail cars or trailers/containers allocated to CSX, and the percentage of Conrail cars or trailers/containers allocated to NS. I understand that the CSX teams receiving these summary files used them to allocate the Conrail traffic in their traffic files to conform to the results of this Study.

Appendix IV: General Merchandise Study

IV.1 Overview

The General Merchandise Study was conducted to estimate diversions and extended hauls of general merchandise traffic to new CSX services created by the transaction, based on the division of lines and facilities agreed to by CSX and NS, including the definitions of shared assets. Because this Study used a different traffic file than the Waybill Sample Study, this Study also replicated the allocation of Conrail's 1995 traffic movements to CSX that was performed in the Waybill Sample Study. The General Merchandise Study did not estimate diversions of freight from truck, barge or other modes to rail service.

Study results are presented in the main section of this verified statement. This Appendix will present details concerning the traffic files used for the Study, assumptions specific to this Study, and how the ATD was applied to this Study.

IV.2 Input Traffic Files

The Study is based on a traffic file developed from four data sources: Conrail 1995 waybills from its COSAC system, CSX 1995 waybills from its DSIS system, NS 1995 waybills for its movements terminated in Canada, and the 1995 STB Waybill Sample. The traffic file includes:

- All Conrail waybills.
- All CSX waybills except those reporting joint service with Conrail.
- All NS waybills for movements terminated in Canada except those reporting joint service with Conrail or CSX.

- All waybills from the STB Waybill Sample except those reporting service by Conrail, CSX, or reporting NS terminations in Canada.

To conform with the STB Waybill Sample, the 1995 Conrail and CSX waybills used for this Study are waybills with a waybill date between December 15, 1994 and December 14, 1995, inclusive. The NS 1995 waybills for movements terminated in Canada were provided to ALK by NS.

The traffic file was limited to general merchandise movements. All movements of intermodal trailers and containers, of multi-level cars for assembled autos, and of coal, coke and iron ore movements (as defined by STCC by CSX's coal department) were excluded from the Study. For this Study, general merchandise traffic includes grain movements.

Prior to conducting the Study, ALK made a series of adjustments to the General Merchandise traffic file:

1. For railroad companies with multiple railroad accounting entities or subsidiaries, such as SP, ALK substituted a single railroad designation for all occurrences of any member of the corporate family. ALK calls this process "familizing". As part of this process, ALK eliminated intra-family junctions from the waybill records. Corporate family definitions were based on the railroad industry as of the start of 1997.

2. ALK assigned node numbers to the origins, destinations and junctions reported in the Conrail, CSX and NS waybills using the same translation tables as for the STB Waybill Sample. ALK then aggregated all movements from or to locations with the same 6-digit SPLC to a single node representing the SPLC.

Following these adjustments, ALK computed the distance of each railroad and estimated the revenue allocation of each railroad according to the adjusted record. This processing used the method of Step 5 of the ATD described in Appendix II.

IV.3 Assumptions

ALK conducted the General Merchandise Study with the following assumptions in addition to the general assumptions presented in the main body of this statement:

1. Indiana Railroad (INRD) was treated as a member of the CSX corporate family for route generation, market share estimation and traffic allocation. It was excluded from tallies of CSX revenue changes.

2. The Study's scope included all markets that originated, terminated or traversed the Conrail service territory. This territory was defined, based on two-digit SPLCs, as the U.S. north of and including Kentucky and Virginia, east of and including Southern Wisconsin, Eastern Iowa and Missouri, south of and including the lower peninsula of Michigan, plus Southern Ontario, Quebec and the Maritime Provinces of Canada.

IV.4 Application of the ATD

To apply the ATD to this transaction, ALK modified its railroad network database to describe the new, expanded configurations of CSX and NS. ALK created a fictitious CSX subsidiary called "CXCR" to be the owner and operating entity for Conrail lines acquired by CSX. ALK created a fictitious NS subsidiary called "NSCR" to be the owner and operating entity for Conrail lines acquired by NS. ALK modified the railroad network database to transfer Conrail lines to CXCR and NSCR. In shared asset areas, and on lines where CSX and NS have granted trackage and haulage rights to each other, both CXCR and NSCR gain operating rights. The rail network used in this Study is the

same one that was used for the general merchandise segment of the Waybill Sample Study, with technical adjustments to coordinate the network with the familized traffic file used for this Study.

Similarly, ALK modified the Activity Matrix for general merchandise traffic to assign Conrail's service at nodes to CXCR and NSCR. In shared asset areas, and at locations where CSX and NS have agreed to permit competitive access to Conrail customers, both CXCR and NSCR inherit Conrail's service at the node. The Activity Matrix used in this Study is an expansion of the Matrix used in the general merchandise segment of the Waybill Sample Study due to the appearance of origins and destinations in the General Merchandise traffic file that are not present in the Waybill Sample. The railroad network and Activity Matrices were reviewed for accuracy by CSX representatives.

To compensate for a rebilling "problem", ALK also assigned operating rights to NSCR on UP's line from Sidney, IL to Salem, IL via St. Elmo, IL, and on IC's line from Tolono, IL to Effingham, IL. ALK determined that many Conrail waybills that report Salem, St. Elmo and Effingham as the movement origin or destination are actually waybills for the Conrail portion of an interline movement with UP or IC.[1] Since Salem, St. Elmo and Effingham are located on the Conrail line to be acquired by CSX, and in the absence of these NSCR operating rights, the ATD would allocate all traffic to and from these points to CSX. ALK judged that this would misrepresent the future competition for traffic that Conrail actually interchanged with UP and IC. By assigning these operating rights to NSCR, and by modifying the Activity Matrices to permit NSCR to originate and terminate traffic at these three locations, the ATD was able to allocate Conrail movements to and from these three locations to both CSX and NS.

[1] Though Salem, IL is not located on Conrail, Conrail waybills nevertheless report traffic originated, terminated and interchanged with UP at Salem. For the purposes of this Study, Salem is treated as equivalent to St. Elmo.

In the quanta-networks created for the Study, ALK created intra-family junctions between CSX and CXCR at locations where new connections are planned and at locations where connections exist between CSX and its acquired Conrail lines. ALK created intra-family junctions between NS and NSCR at locations where new connections are planned and at locations where connections exist between NS and its acquired Conrail lines. ALK created junctions between CSX and NSCR at locations where junctions exist pre-transaction between CSX and Conrail and the location is acquired by NS. Baltimore, MD is an example of this type of location. ALK created junctions between NS and CXCR at locations where junctions exist pre-transaction between NS and Conrail and the location is acquired by CSX. Muncie, IN is an example of this type of location.

For the "filtering" process that is part of Step 4 of the ATD, ALK designated CXCR and NSCR as newly created railroads, and Conrail as a defunct railroad. This permitted the filtering process to identify ATD generated routes involving CXCR and NSCR as eligible candidate routes, and to identify pre-transaction Conrail routes as obsolete routes.

For this Study, ALK modified the filtering process to proceed in three steps. In the first step, ALK applied its standard filtering process. In the second step, ALK constrained the ATD results to Conrail participatory traffic only. ALK applied the traffic allocation results of the standard filtering process to Conrail participatory waybills only, and reset all other movements to their pre-transaction routes and market shares. This step also eliminated traffic allocations to interline routes involving CXCR or NSCR when the connecting carrier was not reported as a connecting carrier with Conrail in the pre-transaction routes. For example, if a pre-transaction market reports Conrail joint service with UP and not with BN, and the ATD generated CXCR joint routes with UP and BN, the filtering extension eliminates the joint route with BN because Conrail did not offer a joint service with BN in the market. In the third step, ALK applied the traffic allocation results of the standard filtering process to non-Conrail participatory waybills only. This

step estimated traffic diversions to CSX from carriers other than Conrail and extended hauls for CSX joint traffic with carriers other than Conrail. The separation of Conrail waybills to step 2 and non-Conrail waybills to step 3 assured that Conrail traffic allocated in step 2 would not be further modified in step 3. Thus, the Conrail traffic allocation in this Study conforms to the allocation of the general merchandise segment of the Waybill Sample Study.

IV.5 Distribution of Study Results

ALK used the post-transaction traffic file generated in this Study as a component of the traffic file used for development of the operating plan for the expanded CSX system. ALK also used the post-transaction traffic file generated in this Study as a component of the traffic used to simulate empty car movements for the expanded CSX system.

ALK also created summary files of Study results and delivered these to John Klick of Klick, Kent and Allen. I understand that Mr. Klick and his staff used these files to develop inputs for pro forma financial statements.

Appendix V: CCIO Remainder Study

V.1 Overview

The CCIO Remainder Study was conducted to estimate diversions and extended hauls of coal, coke and iron ore traffic in markets not studied by CSX's coal department. Diversions and extended hauls are due to new CSX services created by the transaction, based on the division of lines and facilities agreed to by CSX and NS, including the definitions of shared assets. Because this Study used a different traffic file than the Waybill Sample Study, this Study also replicated the allocation of Conrail's 1995 traffic movements to CSX that was performed in the Waybill Sample Study.

CSX's coal department studied coal, coke and iron ore movements to selected destinations on the expanded CSX system. I understand that the destinations they selected were intended to cover the primary, high-volume destinations for movements of these commodities that may be affected by CSX's acquisition of Conrail lines. I understand that these destinations include destinations on lines acquired from Conrail, and destinations that might consume coal, coke and iron ore produced at origins on lines acquired from Conrail. CSX provided ALK with a list of the destinations included in its study. ALK excluded these destinations from the CCIO Remainder Study. Hence, the results of the CCIO Remainder Study are due to CSX diversions and extended hauls in markets with relatively small volumes.

Study results are presented in the main section of this verified statement. This Appendix will present details concerning the traffic files used for the Study, assumptions specific to this Study, and how the ATD was applied to this Study.

V.2 Input Traffic Files

The Study is based on a traffic file developed from four data sources: Conrail 1995 waybills from its COSAC system, CSX 1995 waybills from its DSIS system, NS 1995 waybills for its movements terminated in Canada, and the 1995 STB Waybill Sample. The traffic file includes:

- All Conrail waybills.
- All CSX waybills except those reporting joint service with Conrail.
- All NS waybills for movements terminated in Canada except those reporting joint service with Conrail or CSX.
- All waybills from the STB Waybill Sample except those reporting service by Conrail, CSX, or reporting NS terminations in Canada.

To conform with the STB Waybill Sample, the 1995 Conrail and CSX waybills used for this Study are waybills with a waybill date between December 15, 1994 and December 14, 1995, inclusive. The NS 1995 waybills for movements terminated in Canada were provided to ALK by NS.

The traffic file was limited to coal, coke and iron ore traffic defined by STCC by CSX's coal department.[1] Movements of all other commodities were excluded.

Prior to conducting the Study, ALK made a series of adjustments to the CCIO traffic file:

1. For railroad companies with multiple railroad accounting entities or subsidiaries, such as SP, ALK substituted a single railroad designation for

[1] STCCs included in the Study were: 10-11190, 10-11240, 10-11290, 10-11310, 10-11320, 11-11215, 11-21110, 11-21210, 11-21211, 11-21212, 11-21290, 11-21295, 29-91425, 29-91430, 29-91490, 32-95922, 40-11206, 40-21170.

all occurrences of any member of the corporate family. ALK calls this process "familizing". As part of this process, ALK eliminated intra-family junctions from the waybill records. Corporate family definitions were based on the railroad industry as of the start of 1997.

2. ALK assigned node numbers to the origins, destinations and junctions reported in the Conrail, CSX and NS waybills using the same translation tables as for the STB Waybill Sample. ALK then aggregated all movements from or to locations with the same 6-digit SPLC to a single node representing the SPLC.

Following these adjustments, ALK computed the distance of each railroad and estimated the revenue allocation of each railroad according to the adjusted record. This processing used the method of Step 5 of the ATD described in Appendix II.

V.3 Assumptions

ALK conducted the CCIO Remainder Study with the following assumptions in addition to the general assumptions presented in the main body of this statement:

1. Indiana Railroad (INRD) was treated as a member of the CSX corporate family for route generation, market share estimation and traffic allocation. It was excluded from tallies of CSX revenue changes.

2. The Study's scope included all markets that originated, terminated or traversed the Conrail service territory. This territory was defined, based on two-digit SPLCs, as the U.S. north of and including Kentucky and Virginia, east of and including Southern Wisconsin, Eastern Iowa and Missouri, south of and including the lower peninsula of Michigan, plus Southern Ontario, Quebec and the Maritime Provinces of Canada.

STB FD 33388 6-23-97 A 180274V2A 5/8

V.4 Application of the ATD

To apply the ATD to this transaction, ALK modified its railroad network database to describe the new, expanded configurations of CSX and NS. ALK created a fictitious CSX subsidiary called "CXCR" to be the owner and operating entity for Conrail lines acquired by CSX. ALK created a fictitious NS subsidiary called "NSCR" to be the owner and operating entity for Conrail lines acquired by NS. ALK modified the railroad network database to transfer Conrail lines to CXCR and NSCR. In shared asset areas, and on lines where CSX and NS have granted trackage and haulage rights to each other, both CXCR and NSCR gain operating rights. The rail network used in this Study is the same one that was used for the coal/bulk segment of the Waybill Sample Study, with technical adjustments to coordinate the network with the familized traffic file used for this Study.

Similarly, ALK modified the Activity Matrix for coal/bulk traffic to assign Conrail's service at nodes to CXCR and NSCR. In shared asset areas, and at locations where CSX and NS have agreed to permit competitive access to Conrail customers, both CXCR and NSCR inherit Conrail's service at the node. The Activity Matrix used in this Study is an expansion of the Matrix used in the coal/bulk segment of the Waybill Sample Study due to the appearance of origins and destinations in the CCIO traffic file that are not present in the Waybill Sample. The railroad network and Activity Matrices were reviewed for accuracy by CSX representatives.

The CCIO traffic file did not report Conrail movements originated or terminated at Salem, St. Elmo or Effingham. Hence, no adjustment for the rebilling "problem" at these locations was required.

In the quanta-networks created for the Study, ALK created intra-family junctions between CSX and CXCR at locations where new connections are planned and at locations where

connections exist between CSX and its acquired Conrail lines. ALK created intra-family junctions between NS and NSCR at locations where new connections are planned and at locations where connections exist between NS and its acquired Conrail lines. ALK created inter-family junctions between CSX and NSCR at locations where junctions exist pre-transaction between CSX and Conrail and the location is acquired by NS. Baltimore, MD is an example of this type of location. ALK created inter-family junctions between NS and CXCR at locations where junctions exist pre-transaction between NS and Conrail and the location is acquired by CSX. Muncie, IN is an example of this type of location.

For the "filtering" process that is part of Step 4 of the ATD, ALK designated CXCR and NSCR as newly created railroads, and Conrail as a defunct railroad. This permitted the filtering process to identify ATD generated routes involving CXCR and NSCR as eligible candidate routes, and to identify pre-transaction Conrail routes as obsolete routes.

For this Study, ALK modified the filtering process to proceed in three steps. In the first step, ALK applied its standard filtering process. In the second step, ALK constrained the ATD results to Conrail participatory traffic only. ALK applied the traffic allocation results of the standard filtering process to Conrail participatory waybills only, and reset all other movements to their pre-transaction routes and market shares. This step also eliminated traffic allocations to interline routes involving CXCR or NSCR when the connecting carrier was not reported as a connecting carrier with Conrail in the pre-transaction routes. For example, if a pre-transaction market reports Conrail joint service with UP and not with BN, and the ATD generated CXCR joint routes with UP and BN, the filtering extension eliminates the joint route with BN because Conrail did not offer a joint service with BN in the market. In the third step, ALK applied the traffic allocation results of the standard filtering process to non-Conrail participatory waybills only. This step estimated traffic diversions to CSX from carriers other than Conrail and extended hauls for CSX joint traffic with carriers other than Conrail. The separation of Conrail

waybills to step 2 and non-Conrail waybills to step 3 assured that Conrail traffic allocated in step 2 would not be further modified in step 3. Thus, the Conrail traffic allocation in this Study conforms to the allocation of the coal/bulk segment of the Waybill Sample Study.

V.5 Distribution of Study Results

ALK used the post-transaction traffic file generated in this Study as a component of the traffic file used for development of the operating plan for the expanded CSX system. ALK also used the post-transaction traffic file generated in this Study as a component of the traffic used to simulate empty car movements for the expanded CSX system.

ALK also created summary files of Study results and delivered these to John Klick of Klick, Kent and Allen. I understand that Mr. Klick and his staff used these files to develop inputs for pro forma financial statements.

VERIFICATION

STATE OF New Jersey)
) ss.
COUNTY OF Mercer)

Howard A. Rosen, being duly sworn, deposes and says that he is Vice President of ALK Associates, Inc., that he is qualified and authorized to submit this Verified Statement, and that he has read the foregoing statement, knows the contents thereof, and that the same is true and correct.

Howard A Rosen
Name

Subscribed and sworn to before me by Howard A. Rosen this 10th day of June, 1997.

Mary B. Kelly
Notary Public

MARY B. KELLY
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES DEC. 2, 1998

VERIFICATION

STATE OF New Jersey)
) ss.
COUNTY OF Mercer)

Howard A. Rosen, being duly sworn, deposes and says that he is Vice President of ALK Associates, Inc., that he is qualified and authorized to submit this Verified Statement, and that he has read the foregoing statement, knows the contents thereof, and that the same is true and correct.

Howard A Rosen
Name

Subscribed and sworn to before me by Howard A. Rosen this 10th day of June, 1997.

Mary B. Kelly
Notary Public

MARY B. KELLY
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES DEC. 2, 1998

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

VERIFIED STATEMENT OF JOSEPH G. B. BRYAN

VERIFIED STATEMENT

OF

JOSEPH G. B. BRYAN

I am Joseph G. B. Bryan. I am employed by Reebie Associates, a firm specializing in consulting and research assignments in matters pertaining to freight transportation and physical distribution. The firm is located at 411 West Putnam Avenue in Greenwich, Connecticut.

The purpose of this statement is to describe the highway-to-rail intermodal traffic diversion study that we prepared for CSX Transportation, Inc. in connection with the joint application of CSX Corporation and Norfolk Southern Corporation to acquire control of Conrail, Inc. and allocate certain of Conrail's lines and facilities between them. As reflected in Exhibit 1, we have predicted a total of approximately 321,600 annual truckloads diverted to the expanded CSX system by the end of the third year following the acquisition, representing $158.1 million in new revenue for CSX.

I hold a bachelors degree in philosophy received from Princeton University, and a masters degree in business administration from the Amos Tuck School at Dartmouth College. In 1980, I began work in freight transportation with Consolidated Rail Corporation in Philadelphia, Pennsylvania, serving as a marketing analyst and then a business line manager. After 1984, I joined Emery Air Freight Company as a market research manager, and later held various marketing and operating positions in the trucking industry, ending as Vice President of Operations for truckload carrier P.A.M. Transport of Tontitown, Arkansas. I came to Reebie Associates in 1992 and am now the Managing Principal of the firm.

Reebie Associates is a management consulting firm specializing in freight transportation. For more than 27 years, we have applied our experience to issues such as:

- freight transportation planning;
- goods movements analysis and economics;
- merger and consolidation studies and analysis;
- intermodal planning and marketing; and
- new business development.

Many of my consulting assignments for private and governmental clients have related to transportation market analysis. These studies have included examination of corridor dynamics, modal competition and market position, evaluation of new business opportunities, assessment of industry trends and their policy or strategic implications, and railroad merger analysis.

Recently, for the merger application of the Union Pacific and Southern Pacific railroads submitted to the Board, we concluded a study of highway-to-rail intermodal diversions, evaluating total market potential by traffic lane in selected corridors. For that study, we developed the elasticity relationships of modal costs and modal share, and the method of analyzing truck repositioning costs, that have we have utilized in connection with our current undertaking for CSX. Earlier, in support of the Burlington Northern-Santa Fe merger application to the ICC, we used sets of economic, competitive, and service factors to evaluate potential for intermodal traffic diversion. We have also applied some of the same tools and techniques used for the diversion analysis set forth below to assist the Federal Highway Administration in understanding the consequence of truck size and weight policy options for modal traffic patterns.

In the current proceeding, we have been asked by CSX to determine the extent of traffic diversions from highway to intermodal service that would result from the anticipated efficiencies and the overall service improvements of combining CSX's existing network, with the portion of the Conrail system proposed to be allocated to CSX, to form a unified system. Our approach to this assignment has been based on conservative assumptions. Our method of analysis and estimate of diversions will be described in this statement and its appendices.

I. DESCRIPTION OF THE INTERMODAL MARKET

The integration of Conrail into a wider rail network will kindle the maturation of the intermodal product east of the Mississippi River. That integration will improve the availability and frequency of service, expand the geographic scope of terminal coverage, and accommodate more lanes for transportation buyers who want fewer vendors. The capacity to achieve equipment balance will be significantly enhanced. In consequence, the concentration of volume on rail will build, and it will feed the symbiotic cycle of utilization, service, and efficiency. Thus, the expanded CSX system will enhance competition as well as produce important cost and service gains for the rail/truck intermodal product.

A. Intermodal Operations in the East

The percentage of freight that is transported by intermodal service varies markedly from one side of the Mississippi River to the other: for 1995 van traffic that stays either East or West of the River but travels at least 500 miles, intermodal share in the East is 22%, less than half the 46% achieved in the West. Of course, the dispersion and isolation of metropolitan areas is greater in the West, so that the average shipping distance is longer by more than 60%. Western rail circuity also is less: about 5% compared to 13% in the East, based on a sample of intermodal lanes. Greater length of haul and reduced circuity are advantageous to intermodal economics and account for part of the difference in intermodal performance between West and East. However, there is also a difference in levels of market development for intermodal products. For example, intermodal share of Conrail's East/West local lanes was 30% in 1995, at an average distance of 772 miles. For the Eastern corridors that will benefit from new single line service from the CSX Acquisition - those with primarily North/South orientation, comprising the I-95, I-85, I-75, and Memphis Corridors that are described below - intermodal share was under 9% with average distance of 1,020 miles, and shares were actually greater in the corridors with shorter rather than longer haul. This

disparity in interline shares demonstrates that another factor has reduced the attractiveness of intermodal service in the East: the absence of a sufficiently large single line network.

The value of a single line franchise for railroad share of freight traffic has been fairly well established. Moreover, a typical equipment balancing pattern for highway operations links the Northeast, the Southeast, and the Midwest in a triangle; the current inability of the intermodal network to duplicate this pattern with single line rail service is a competitive handicap. A complete picture of operational balance in irregular route trucking is more fluid and complex, but the central fact is that it makes use of *all* of the geography. Intermodal service in the East currently cannot do so. Such service is analogous to a chess player restricted to move on the right hand side of the board competing with a player who moves everywhere: the outcome is never in doubt.

The integration of Conrail into CSX and NS will establish the first single line coverage to span the East and open the door for significant improvement to, and expansion of, intermodal service. Motor carrier clients of CSX and the customers that use them will be able to substitute intermodal for highway linehaul across more of their operations while expanding the number of points to/from which they can effectively use intermodal services, thus achieving balance of equipment within their systems. The availability of more single line service also will provide benefit to a variety of other intermodal customers, among them intermodal marketing companies, steamship lines, and package delivery services.

CSX will be able to offer new or strengthened intermodal service on 309 routes, including:

- 201 direct routes, two-thirds of them with new, direct service; and,
- 108 interline routes, one-third of them featuring improved Southwest gateway service over Memphis.

In the 10 years from 1986 to 1996, U.S. rail/truck intermodal traffic expanded at an impressive compound annual rate of 5%. Much of this growth came from the initiation of double stack trains to service large, concentrated, and increasing volumes of international business. The capacity committed to international trade demanded domestic freight to balance the flow of equipment. To fulfill this balance, domestic traffic began to migrate into containers. Container use doubled between 1988 and 1996, growing at 9 percent per year and accounting for an annually larger share of intermodal business; container volume surpassed trailer volume by 1992 and the gap continues to spread.

Motor carriers have made far ranging commitments to intermodal operations during the 1990's. Substantial portions of business for the nation's two biggest truckload van carriers have been transformed from all-highway to intermodal carriage; for one of them, the intermodal portion reached 50 percent in 1996. Large LTL carriers have assigned up to 26 percent of their line haul traffic to intermodal, mainly in long distance lanes. Behind these trends is continuing pressure from customers to produce cost reductions, from investors to generate return on assets, and the necessity for carriers to compensate for chronic, expensive shortages of professional long haul drivers. Indeed, even though recent moves to raise driver pay should stabilize driver supply, those raises should also stimulate intermodal usage by increasing the direct cost of over-the-road line haul transport.

Traditionally, highway operations have had clear superiority in economics and service for many traffic sectors: prominent examples are premium shipping, light density corridors and regions, and freight transported in the heavily traveled, short distance traffic lanes. For primary shipments of dry van goods by intermodal and highway during 1995, all-highway service constituted 98% of the national volume at ranges below 500 miles; above that mark, intermodal usage jumped to 30%. Intermodal share plainly rises and unit costs fall as the distance and density of lanes increase; moreover, the *differential* between intermodal and all-highway costs widens. This is partly because the significance of pickup and delivery (P&D) in total cost diminishes with length of haul. The competitiveness of the intermodal product is

strongly favored by these factors; our analysis has aimed to capture them in the form of an elasticity relationship, which we have applied to estimate diversions in the major new single line service lanes. There is also efficiency and service improvement created by the unification of the Eastern intermodal network; this was evaluated as well to determine the associated level of diversions. A detailed discussion of our methods is presented in Appendix A, "Diversion Analysis," treating both the new single line service and the network efficiency or "synergy" elements of our analysis.

Our analysis is concerned chiefly with dry van freight, which is the dominant component of intercity traffic and the main portion of the freight mix that is most readily divertible to intermodal service. We have also considered a selected subset of van commodities requiring temperature-controlled transport, or so-called "reefer" commodities. The selection was based on a profile of reefer goods regarded as suitable for intermodal carriage; this was obtained from a motor carrier which is one of the largest temperature-controlled operators and an experienced user of rail/highway intermodal service.[1] Other classes of freight were excluded, among them the objects of bulk intermodal and flatbed operations. Intermodal product offerings are not fully established for these segments, and there is continued experimentation with equipment types and operating configurations to serve these sectors. While such business can be important, in the interest of conservative analysis we concluded that consideration of diversions from these sectors was premature.

Despite its sustained record of traffic growth, there have been signs of dissatisfaction with the intermodal contribution to railroad profits. Intermodal services are being improved but also redesigned for the sake of better returns; the current transaction brings with it the prospects for more effective intermodal service coupled with lower costs and better equipment utilization. Based on our analysis, diversions resulting from new single-line services will

---

[1] In calculating intermodal attraction, only *half* of the volume from these selected refrigerated commodities was considered eligible for diversion. The elasticity relationships employed in the model are based on the market for dry van goods. While intermodal clearly appeals to the temperature-controlled market, the appeal was felt to be weaker than for dry goods because of its heightened service sensitivity. By limiting the volume available for diversion we recognized this difference, although the precise relationship has not been quantified. Temperature-controlled volumes thus form less than 4% of the highway market available to intermodal in this study.

produce material contributions to profit, and promote operational balance in corridors. We believe in consequence that the expanded CSX system will realize efficient, sustainable operations over a better network, that it will introduce and maintain a new level of competition, and that it will create a productive alternative for motor carriers, intermediaries, and direct purchasers of transportation alike. This study builds on the principles and conditions we have outlined.

II. ASSESSMENT OF DIVERSION POTENTIAL

Our projection for the potential diversion of highway freight to the new CSX intermodal system is rooted in the analysis of individual traffic lanes: one origin area linked to one destination. We have summarized and considered these lanes grouped in terms of corridors, but there is an articulated foundation that assesses specific characteristics of over-the-road and other rail competition, regional patterns of traffic balance, and the qualities of service and cost expected from CSX operations after the transaction.

In coordination with CSX officials, we identified for study sets of particular origin-destination ("O-D" or lane) pairs within five operating corridors. Lanes were selected on three bases: projections for improved intermodal service consequent to the acquisition; the volume on highway and its potential to contribute to trains; and the probability that diversions would be successfully produced. Two distinct analytic approaches then were used to estimate new intermodal traffic.

The first approach was a behavioral one, applied to the I-95, I-85, I-75, and Memphis Corridors that we established for study. These are the primarily North/South corridors where *new* single line service would be introduced, creating business opportunities on routes not previously available or viable for the component railroads. Here, we assembled information on shipment flows and volumes, translated these to modal shares and then correlated them with the underlying changes in carriers' estimated costs. At the same time, we examined the competitive service

characteristics to confirm that the new CSX intermodal service resulting from the acquisition would meet market standards. These relative changes in modal shares were driven by the changes in costs and service which arise from the benefits of the transaction on a lane-by-lane basis.

The second approach that we used estimated the diversion gain from rail network expansion which would accrue on the primarily East/West lanes that Conrail currently serves. These lanes constitute the so-called I-70/80/90 Corridor. In contrast to the analysis of diversions expected on new single line routes, described in the prior paragraph, our analysis here was focused on synergistic improvements to existing intermodal services that will result in diversions from highway. Such "synergy" diversions are expected because this Corridor will be integrated into a new, larger intermodal system, offering more service lanes in each terminal area, more opportunities to improve utilization, and ultimately better density, reliability and frequency of service. We have quantified these gains by comparing current intermodal shares for each origin/destination pair, to the national averages achieved for lanes of similar distance and density. Further description of our analysis is presented in Appendix A. The service considerations that we utilized in our diversion study are set forth in Appendix B and the cost inputs in Appendix C.

A. Description of Freight Volumes Data

TRANSEARCH, Reebie Associates' data base of intercity freight movement statistics, was employed as a foundation upon which to assess market size in specific traffic lanes. For rail intermodal volumes - used throughout the analysis to determine current intermodal share and overall lane densities - the source was the 1995 STB Waybill Sample.

TRANSEARCH is a data base of intercity freight movements by specific commodity and mode of transport, covering all of the United States in 183 geographic areas. It is based upon numerous sources of information, among which is a data exchange program with major U.S. long-haul motor carriers. TRANSEARCH information has been used by 500 clients, mostly freight carriers, for a variety of planning and marketing applications, since its introduction in 1980. TRANSEARCH data also have been submitted as evidence in the UP/SP application before the

Surface Transportation Board, in several ICC proceedings (including the BN/Santa Fe merger) and in proceedings before other regulatory bodies.

TRANSEARCH defines commodities at a four-digit Standard Transportation Commodity Code ("STCC") level. The more aggregated two-digit STCCs describe industries: for instance, STCC 20 is Food or Kindred Products. Four-digit codes are used to distinguish among products. Thus, #2012 denotes Frozen Meat; #2025, Cheese; and #2047, Pet Foods. In our analysis, for example, we studied only the Cheese and Pet Foods portion of truck freight, which move respectively in reefer and dry van vehicles. Frozen Meat obviously is also a refrigerated van good but is associated by carriers with high loss and damage claims; since carrier hand-offs are required in intermodal transport, claims can be hard to defend against and this commodity therefore is apt to remain on the highway. Completely excluded from analysis were commodities that do not typically move in van type vehicles - #3511, Steam Engines and Turbines would be an example.

In addition to commodity detail, TRANSEARCH describes geographic regions in terms of Business Economic Area ("BEA") origins, destinations or hub areas. TRANSEARCH provides reports showing what freight commodities are moving between New York and New Orleans, for example, broken into seven modes of transport: Rail Carload; Rail Intermodal; For-Hire Truckload; Less-Than-Truckload; Private Truck; Air; and Water. Origin-to-destination spatial patterns for truck are confirmed in TRANSEARCH by real-world information obtained in the motor carrier data exchange program and for rail through the Waybill Sample. Freight volumes in TRANSEARCH are shown as annual tons, in this case using a 1995 base year.

Our approach has been conservative. Rail/highway operators already are moving some tank, flatbed and hopper type vans or containers in intermodal service - some with new forms of equipment such as BulkTainers. Still, following our practice in previous studies, the non-containerizable portions of commodity groups have been screened out to produce a set of volumes which are clearly suited to intermodal or containerized movement in each traffic lane.

B. Summary of Diversion Estimates in Key Corridors

The projected diversion from highway by the new CSX intermodal system totals 321,600 annual trailer/container loads by the third year of the acquisition. It will generate $158.1 million in new annual revenue for CSX, as well as additional business and efficiency for connecting railroads and other intermodal partners. The five corridors selected for inclusion in the highway diversion study, as an outcome of our review of traffic lanes, will now be described, and the predicted diversions in each summarized.

I-95 Corridor: This Corridor joins New York and New England to the Southeast coast and Florida, generally paralleling the route of Interstate Highway 95 from Maine to Miami. It encompasses Boston, Springfield and the greater New York metropolitan region in the North. There is drayage coverage of Connecticut, Rhode Island, and points in upstate New York, and there is long distance drayage between Boston and Maine (especially to attract shipments of paper). Philadelphia and Baltimore are *not* included because CSX provides viable corridor service to these areas today; however, these CSX trains provide backbone volume for the post-transaction operation. On the Southern end are Charleston, Savannah, and the chief cities of Florida: Jacksonville, Orlando, Tampa and Miami.

The new CSX service will be configured to feature second morning intermodal service between New York and Jacksonville, and third morning service between Jacksonville and Boston. Pre-transaction intermodal share is about 13% on an average length of haul for all traffic of 1,200 miles; NS offers Triple Crown service today between Jacksonville and Buffalo, and an interline stack train between Jacksonville and New York that operates over Atlanta. 177,000 loads traveled corridor highways in 1995, almost twice as many in the Southbound as in the Northbound direction. This pattern is atypical for the Northeast but is standard for and explained by Florida, whose peninsula, high population, and limited manufacturing base create notorious imbalance. The largest lanes within the corridor are between New York and Florida, particularly Miami and Tampa.

We project new intermodal services to gain fifteen full points in market share, a robust rate of diversion. CSX should realize most of this business because of its strong, established position in Tampa, Orlando, and New England, and its direct coastal route. We predict that highway loads diverted by CSX will total 26,000, producing $16 million in new revenue. Diversions would come across the full spectrum of markets, but produce the most volume in the big New York/Florida lanes.

I-85 Corridor: Following the route and branches of Interstate 85, this Corridor links the Northeast with Atlanta, the interior of the Carolinas, and the central Gulf Coast. The Northern end duplicates the I-95 corridor, with two key exceptions: Buffalo and Syracuse connect only to the Carolinas (other areas follow the route of I-75), and Philadelphia and Baltimore come into play. CSX withdrew I-85 service for Philadelphia and Baltimore late in 1996 because of diseconomies; with direct New York and New England operations added, the service should become viable again. (We have assumed CSX can recapture the discontinued business and that this is available for baseload. However, only *additional* volume taken from highway has been counted among our predicted diversions.)

The Southern end of this Corridor includes Charlotte, Atlanta, Mobile and New Orleans, with drayage to Greenville/Spartanburg, Columbia, Macon, and Baton Rouge. The new CSX service would be a TOFC operation featuring second morning service between Atlanta and Charlotte on the one hand, and New York, Philadelphia, and Baltimore on the other. Third mroning service to/from Boston would be provided. NS operates an interline stack train on this route today, covering Atlanta and New Orleans among Corridor points. This service is expected to be upgraded and to offer substantial competition to CSX in some lanes.

Approximately 385,000 loads traveled I-85 Corridor highways in 1995. 64% ran in the Northbound direction, following the normal pattern of imbalance for traffic into the Northeast. The average length of haul is 890 miles, the shortest of the five studied corridors. However, there is

also good volume on longer hauls into New England, and a sizable long-haul Southbound lane from Maine to the Carolinas. Intermodal share of the Corridor in 1995 was 13.6%.

We predict that intermodal services post-transaction will gain nearly 13 share points in this corridor. This is a healthy advance against solid highway volumes, yet it is held back by service considerations in New Orleans and Mobile. With Gulf Coast service handled over Atlanta and geared to the Atlanta metro area, the Gulf schedules limit intermodal penetration to weekend business. We predict that approximately 40,000 loads would be diverted to CSX; large New York and Philadelphia traffic activity in many lanes will be shared substantially with Norfolk Southern, but CSX will acquire some heavy New England volumes. This new CSX revenue would total $18.5 million.

I-75/59 Corridor: Connecting the Midwest with the South Atlantic and Eastern Gulf Coasts, this Corridor roughly mirrors the path of Interstate 75 and its Interstate 59 offshoot. It draws from Detroit and the major Ohio markets of Cleveland and Columbus. Atlanta, Savannah, and Charleston, together with the four major Florida cities noted above, plus New Orleans and Mobile are the areas encompassed in the South. Midwestern drayage brings in Lansing, Erie, and a series of Ohio points: Youngstown, Toledo, Dayton, and Lima; Southern drays followed the patterns of the I-95 and I-85 Corridors.

CSX would offer new TOFC service in the I-75 Corridor, lengthening the reach of an existing train which comes to Cincinnati from the South. Portions of the I-75 operation in the Midwest will be combined with Memphis Corridor trains. This ability to build volume from many lanes, some on the network of CSX or Conrail prior to the acquisition and some not, justifies a service that could not be justified in the absence of the transaction. For example, currently, the CSX I-75 service to Detroit consists of a long truck dray from Cincinnati instead of rail service through to Michigan. This is the consequence of inadequate volume, although CSX has track reaching up to Detroit.

The new CSX schedules include fourth morning service for South Florida and third morning for Jacksonville. 1995 intermodal share in the I-75 Corridor averaged 15%, with an important component the Triple Crown RoadRailer trains between Detroit and the Southern points of Atlanta and Jacksonville. Hauls average 950 miles and there is severe imbalance in the highway freight: of the 256,000 loads which ran over-the-road in 1995, only 26% were coming North, especially because of the characteristics of Florida. The biggest lanes are all southbound, to the cities of Atlanta, Miami, and New Orleans.

Intermodal services after the integration with Conrail are expected to gain 10-1/2 points in market share, although diversion levels are suppressed by the need to coordinate train schedules. Atlanta and the prime points in Florida would account for most of the new business. Some lanes would have competitive service only for weekends, while others would be unable to attract traffic. Against significant competition from Norfolk Southern, CSX is predicted to capture approximately 20,000 loads from highway and revenue of $10 million.

Memphis Corridor: Approximately 1.1 million loads traveled the highways of the Memphis Corridor in 1995, making it the second largest in total volume and in projected diversions for the studied corridors. Intermodal share was under five percent on lanes with an average distance over 1,000 miles, leaving much room for new services to grow. Norfolk Southern runs interline stack trains with Conrail on some lanes in the Corridor today, which it routes through Atlanta.

The Corridor joins the Northeast and Midwest to Tennessee and Texas, with subsidiary service between Indiana, Cincinnati and Kentucky, and the Northeast. The metropolitan areas in the North are the same as those served in the I-95, I-85, and I-75 Corridors; the Southern and Western points include Nashville, Memphis, Dallas, Houston, and San Antonio, plus Evansville, and Louisville and Lexington via dray from Cincinnati. Post-transaction, several smaller Texas markets would reached by dray. Connection to Mexico would be accomplished via rail from San Antonio to Laredo. Finally, there would be service between Indianapolis

and Baltimore/Philadelphia, which neither CSX nor Conrail can justify today. Many lanes within this Corridor have significant volume: Cincinnati/Northeast, Memphis/New York, Tennessee/Midwest, and Detroit/Texas are some prominent examples.

CSX would provide stack train service throughout the Memphis Corridor, with the exception of routes to Philadelphia and Baltimore where overhead clearance is inadequate. Single line service would be provided on many lanes for the first time. There would also be new Texas gateway service over Memphis, offering a superior all-rail alternative to the heavily rubber-tire interchange at St. Louis and elsewhere. Other lanes would have through intermodal service where none can be justified now, notably between Cincinnati and the Northeast, and between Tennessee and the Midwest. Corridor trains in general have been built by combining volumes with I-75 North/South operations, and with East/West operations on Conrail routes east of Cleveland. Service will be quite highway competitive, including third morning transit between Tennessee and the Northeast and fourth morning service between Dallas and the Northeast.

Major diversions are predicted in this Corridor, driving up intermodal share by seventeen points overall. With strong routes and direct operation to New England, CSX is expected to realize a healthy share of this business. Projected new CSX volume totals 114,000 loads, bringing almost $57 million in revenue to CSX. These figures represent just over 35% of the total diversions forecast in our study, measured by both loads and revenue. Highway traffic is attracted all across the Corridor and is nearly balanced North/South, despite 34% heavier volume northbound over-the-road; successful diversion of Northeast/Texas business helps to bring this about.

I-70/80/90 Corridor: Intermodal services in this large, primarily East-West Corridor are expected to be sparked by synergy in operations and marketing, consequent to Conrail's integration into broader rail networks. The Corridor joins Conrail's home territory in the Northeast with its direct service area in the Midwest, and with Western and transcontinental

points via the Chicago and St. Louis gateways.[2] Northeastern areas are the same as those receiving service in other Corridors; Midwestern lanes are all at least 500 miles long and include Chicago, St. Louis, and Indianapolis, as well as large cities in Ohio and Michigan. The areas served by interline service would include Minneapolis, Kansas City and Denver, as well as the main Pacific Coast cities of Seattle, Portland, San Francisco, and Los Angeles.

Covering a wide territory, the I-70/80/90 Corridor is the largest Corridor in our study, both in terms of current intermodal share and in potential diversions. Rail/truck intermodal carried 36% of the business in 1995, most of it with Conrail. The average distance for all traffic exceeded 1,300 miles, but this included transcontinental hauls that rail dominated, and shorter hauls carried substantially by truck. Total highway volume in 1995 was 1.4 million loads and overall was 10% heavier headed East. Midwestern/Eastern lanes and "close-in" interline areas (e.g., Minneapolis) offer the greatest new intermodal opportunity.

Post-acquisition intermodal services have the potential to gain nine points in share, increasing to 45% of the Corridor. Competing head-to-head with Norfolk Southern but aided by the franchise in New England, CSX is predicted to divert 121,000 loads from the highway. Projected new revenue for CSX would be $56.7 million, representing almost 36% of all diversions among the five Corridors in dollar terms, and over 37% in terms of load volume.

III. CONCLUSIONS

This analysis is based on the development of profitable new railroad traffic, attracted from highway by natural advantages realized by the expansion of the intermodal network. The CSX use of Conrail lines materially strengthens this network for the whole nation, and we believe it will transform freight operations in the East, diverting over 300,000 loads from all-highway service to intermodal service offered by CSX. The unified system is an asset to customers of all types, who seek ever lower costs, higher grades of service, and efficient ways

---

[2] While I-70/80/90 territory is big, there is *no* overlap of lanes with any other Corridor in our study.

to function in the worldwide marketplace. Intermodal is a basic technology that bridges domestic and international trade lanes and can foster compatible distribution systems of great scope. The CSX transaction is a rational step for the benefit of U.S. industries, and the people they supply and employ.

EXHIBIT 1

CSX INTERMODAL DIVERSIONS FROM HIGHWAY		
Corridor	**Annual Truckloads Diverted**	**CSX Revenue (Millions)**
I-95	26,000	$ 15.8
I-85	40,000	$ 18.5
I-75	20,100	$ 10.3
Memphis	114,300	$ 56.8
I-70/80/90	121,200	$ 56.7
TOTAL	321,600	$158.1

APPENDIX A

DIVERSION ANALYSIS

Intermodal penetration is related to lengths of haul and the concentration of volume in traffic lanes. As the distance between the origin and the destination increases and lane volume (density) grows, the competitiveness of intermodal service improves relative to highway, and the cost advantage of intermodal widens. A statistical interpretation of this relationship forms the basis of the diversion method applied to the four corridors where new single line services will be made available, and was first developed and presented before the Surface Transportation Board during the UP/SP merger application. This is discussed in sections A through C, below. A matrix analysis of the same relationship drives the synergy gains for the remaining corridor, and is presented in section D.

A. Modal Shares

The great majority of freight travels only a short distance. Intermodal participation is less than three percent for all van shipments under 500 miles, and is essentially nil for local movements. We examined volumes of freight suitable for dry van carriage by for-hire truckload, less-than-truckload and private truck, and by rail intermodal for all of the O-D pairs that were at least 200 miles apart. Since intermodal volumes become distorted at distances beyond 2,300 miles due to railroad rebilling[1] at key intermodal gateways, these longer distances were dropped from the analysis.

---

[1] Rebilling distorts the apparent intermodal activity at such major gateway points as Chicago, St. Louis, Memphis, Omaha and New Orleans. The system is employed at other locations as well, but it is now somewhat less significant. As a result of rebilling, cars moved from the East or West Coast may show one of these mid-continent locations as the destination, but, in fact, the car and/or trailers are rebilled and moved to points beyond by rail. In the key locations, rebilling can amount up to 60 percent of the total tonnage moving through that point. Under current practices, the interruption of the through move occurs because of the physical interchanging between railroads, or because of drayage on local roads between carrier terminals. These same points are often the location of transfer to long-haul truck operations to points further beyond.

The first steps in the analysis were to correlate intermodal shares with mileage. Freight was first grouped into three density categories based on the volumes transported between market pairs: under 100,000 tons per year; 100,000 to 400,000 tons; and over 400,000 tons. These three groupings relate to intermodal activity, the smaller volume movements receiving intermodal service from many carriers through train operations in mixed consists, the medium ones with dedicated intermodal or other premium service trains, and the highest reaching the threshold for double stack intermodal trains. Of all the markets, 95.6% fell into the low density group, 3.5% were in the middle category and only a relatively few, 0.8%, were in the heaviest category.

All 29,493 O-D pairs containing shipments moving between 200 miles to 2,300 miles were drawn from the TRANSEARCH data base and were aggregated by mileage blocks of 100 mile intervals. For each distance and density group, we evaluated the difference between average costs per mile of intermodal versus highway transport, and the modal share of traffic. Using the simple Pearson correlation coefficient for initial analysis, we found high, negative correlations for each density group: -.92 -.78 and -.84 for respective densities low to high. The negative relationship signifies that a decrease in the relative cost of intermodal produces an increase in its relative share. In other words, intermodal carriers can translate economic advantages into greater shares of traffic.

B. Elasticity

We have interpreted the relationship of intermodal/highway cost and share in terms of price elasticity, meaning that a change in price will produce a corresponding change in the demand for each mode. Transportation prices are sensitive and closely guarded, frequently with protection under contract. However, the price of services is associated with traffic dynamics, manifest in the underlying cost of carriage. That association substantiates a cost-based proxy for price, which we have used in a cross-

elasticity analysis to predict diversions across modes. Specifically, the elasticity measurement is a statistical coefficient by which we can quantify the effect of change in the intermodal price (cost) on the demand for highway service.

Transportation researchers rely on discrete choice models to measure elasticity in mode selection, particularly for passenger but also for freight applications. Our analysis adopts modal share as the dependent variable, since share supplies a comparable measure of modal activity for business areas differing in traffic volume. To estimate elasticity where the variable is modal share, the model had to restrict results to values between 0 and 100%, in effect estimating the probability of customers selecting intermodal transportation over highway, given some independent attribute. The attribute established by our model is the difference in average price (cost) between intermodal and highway. Described technically, the model we employ is of the so-called "logit" type, measuring the elasticity of intermodal share with respect to the difference between highway and intermodal costs. It enables us to predict with some measure of certainty how intermodal share will change after operating cost efficiencies are achieved.

C. Steps in the Diversion Model

Only O-D pairs that passed two hurdles were considered before application of the diversion model. One hurdle was based on service; the other on cost..

Service Hurdle: New intermodal service is required to be competitive with over-the- road truck service. Actual schedules were used to quantify rail transit terminal-to-terminal. Cutoff times at origin and availability times at destination were evaluated in terms of their realistic result for customers, who generally are geared to morning deliveries and afternoon pickups. After allowance for P&D (drayage) and terminal dwell time, a practical figure was arrived at for total intermodal service door-

to-door. Appropriately longer P&D times were employed for extended truck drays between the Boston terminal and Maine.

As noted above, door-to-door rail service was allowed to be up to one day slower than single driver over-the-road service, and up to one-and-a-half days for lanes to and from South Florida. Lanes meeting these criteria passed the service hurdle. Lanes failing these criteria were tested a second time with one additional day allowed. This addition was meant to represent the effect of weekends, when carriers are able to travel but delivery ordinarily must await the beginning of the customer's work week. Lanes meeting this criterion passed the service hurdle for thirty percent of the available highway volume, which approximates the portion of business picked up late in the work week and benefiting from the weekend. Lanes failing both hurdles were not predicted to experience any diversions.

Cost Hurdle: New door-to-door intermodal costs were required to be lower than present intermodal costs as well as lower than highway costs. Lanes failing this test diverted no traffic. Rail costs were constructed from carrier long term variable costs plus a profit margin. Drayage individually estimated for each terminal was added to produce a door-to-door total. Highway costs were also constructed with a profit margin. The highway margin represented a 93.5% operating ratio, matching recent performance levels of efficient motor carriers. This established the surrogate for truck price in the lane.

Rail margins were set at 130% over variable costs. Since this margin could produce a diversion in the higher volume direction substantially larger than diversions in the lower volume direction, thus creating a potential traffic imbalance, some flexibility was allowed. In lower volume (backhaul) directions, rail margins were reduced to 110% for both old and new rail costs. This was done to reflect competition with highway and at the same time to prevent traffic imbalance; costs by highway also

were lower in the backhaul direction. Setting the price/cost relationship in this way helps ensure that diverted intermodal traffic will improve the profitability of the business line and will conservatively estimate the size of the available market opportunity.

Application of rail costs was modified to better account for competition with the Norfolk Southern system. Lanes where NS, or its Triple Crown subsidiary, presently are leaders were identified. Prices based on NS costs were used rather than those based on CSX costs as the method for measuring existing intermodal economics. RoadRailer and stack train services were chiefly considered; because RoadRailer service will not appeal to owners of private equipment (such as motor carriers, whose fleets feature very few of these bi-modal trailers), a blended cost profile was used, composed of conventional intermodal as well as bi-modal options.

Diversion: For those O-D pairs passing the service and cost hurdles, diversion was determined in five steps:

- Categorize lane density;
- Calculate the change in differential between old rail costs versus highway, and new rail costs versus highway;
- Multiply the change in differential by the relevant coefficient from the market share model;
- Apply the multiplied differential to present intermodal market share, yielding the new intermodal share of the market and the volume diverted; and
- In those lanes where Norfolk Southern will be a competitive factor, assess the percentage gain likely to be experienced by CSX. This assessment was undertaken in cooperation with CSX marketing officials and was based on

an evaluation of the extent of each carrier's network coverage in a particular lane.

The volume gain produced in this last step constitutes CSX predicted intermodal diversions from highway. However, application of the diversion model to individual lanes required a limited set of modifications. The modifications were as follows. First, intermodal share was capped at 95% to and from Western gateways, and at 90% elsewhere. The higher number was employed at gateways as an accommodation for carload rebilling, which artificially overstates share for locally originated or terminated traffic. Lanes where current share exceeds the cap were left at current share, and saw no diversion.[2]

Second, intermodal share gains were capped at a 15 percent increase, but up to a 20 percent increase was allowed in the backhaul direction of each corridor. This permits achievement of better balance of backhaul with headhaul diversions, where the available volume is higher. The cap reflected our judgment as to the degree of diversion that could occur in the three year time frame established for this study, in the absence of technological innovation.

Third where current rail share ranged from zero to four percent, a floor value of four percent was substituted to allow the application of the fourth step in the Diversion subsection above, which estimates the change in the share.

D. Synergy Diversion Analysis

Synergistic traffic gains projected for the primarily East-West I-70/80/90 Corridor were based on a share matrix, constructed for primary dry van traffic moved over-the-road and intermodally. Data sources were 1995 national volumes from

---

[2] This is a standard feature of the model. In point of fact, in no lanes did current market share exceed this cap, and only one (light density) lane was affected by it.

TRANSEARCH and the detailed, private use STB Waybill sample. The matrix displayed relative modal share by highway distance ranges and by lane density; the latter was constructed from BEA origin/destination pairs and was grouped by annual lane volumes under 100,000 tons, from 100,000 to 400,000 tons, and over 400,000 tons. These groupings duplicate the densities established in the elasticity-based diversion analysis used for the new single line corridors.

Traffic data were first adjusted to accommodate certain gateway rebilling, utilizing factors obtained from Conrail. Current intermodal share was then compared by lane to the matrix figure for the distance range and density group. Where the current share matched or exceeded the average, no diversions were predicted. Where the current share fell below, diversions were predicted so as to bring the lane up to the matrix average, subject to a maximum share gain of twenty points. This share gain cap represents a reasonable rate of change for the three year time frame for a corridor with a well-developed base load. The share gains were translated into new intermodal volume diverted from highway. These highway volumes were in turn divided between CSX and Norfolk Southern, according to an assessment of the scope of each carrier's network coverage of the lane.

APPENDIX B

SERVICE CONSIDERATIONS

Service performance in freight transportation incorporates a range of related elements. The on-time reliability of delivery and pickup and the speed of transit are central factors. In addition, communication about transit performance and the goods transported, the responsiveness of carriers and their ability to address delays, and the availability and qualities of equipment are among the service features customers heed.

The growth of low-inventory logistics among shippers and receivers intensifies their dependence on carrier performance in all these respects. Increasingly, specific modes and modal combinations are less important to customers, so long as the windows of cost and service prevailing in a distribution channel are met. Because information is replacing physical goods in inventory strategy, the prominence of communication and customer support features is rising. Thus, there are new ways for carriers to differentiate their services, even as traditional distinctions based mainly on mode may be fading.

The elasticity model we applied in this study implicitly accounts for the whole range of distribution cost and service considerations necessary for customers to use intermodal as opposed to highway service. Diversions resulting from the model were checked against total train volumes, including baseloads, to ensure the adequacy of traffic levels to sustain dependable rail service. Lanes also were tested individually for competitive transit times, to assure that intermodal service comes within the window for over-the-road performance.

Over-the-road transit in this analysis adds together the travel time empty from the last load to the origin (so-called stem time), plus loading, the linehaul, and the destination delivery time, including unloading or dropping the trailer. Sixty-two miles per hour was assumed in the calculation of transit times over the high-speed highway

system - chiefly for the linehaul portion of service. Thirty miles per hour was assumed for truck local travel time.

A similar set of activities was considered for intermodal service. From the shipper's dock, we allow time for truck drayage to the terminal and dwell time from receipt of trailer, through loading to rail car and departure. Linehaul transit time for intermodal was based on the proposed post-Acquisition CSX train schedules, terminal to terminal. At destination, we include dwell time from unloading the rail car to availability for pickup, and drayage time for delivery to the receiver's dock. Dwell times in this study reflect "cut off" and "available" times, when loads are ready for pickup, as the measure of service most useful for modal comparison. In practice, customers offer pickup and delivery appointments to suit their own schedules and capacities, which can cause highway as well as intermodal trailers to wait in terminals or carrier drop yards, prolonging the equipment but not really the service cycle.

Finally, the full dock-to-dock transit time by highway and intermodal were compared. To be deemed competitive, we require intermodal service to be within a one day increment compared to an over-the-road operation, except that a somewhat larger margin of one-and-a-half days could be allowed for South Florida traffic. CSX officials advised us that these margins are realistic, based on their marketing experience. We checked them independently as well, by surveying a sample of very prominent intermodal customers - among them the largest motor carrier and the largest intermodal marketing company (IMC). The survey confirmed the experience of CSX, including the experience with South Florida.

APPENDIX C

COST INPUTS

A. Intermodal Cost Inputs

The likelihood that CSX will attract highway traffic depends substantially upon positive change in the long term competitiveness of the new system. Our diversion study is built on the analysis of change, specifically contrasting carrier costs and service produced in the following circumstances: over-the-road service as presently available; intermodal service by CSX and Conrail under pre-acquisition conditions; intermodal service by CSX under post-acquisition conditions, and competitive intermodal service by Norfolk Southern.

Determination of the potential quantity of diversions was based on comparative assessment of the underlying costs for the current highway and the expected rail intermodal service replacement. A reasonable markup for profit was added to costs in both modes. Diversions were driven by the measurement of differences in costs and service between present and post-acquisition operations of rail intermodal and truckload carriers.

Cost Analysis Models: The diversion evaluation was conducted using inputs from reports developed by Reebie Associates Carrier CostLine Models. These furnished a view of the modal and carrier economics. Two separate models were used:

- Intermodal Cost Analysis Model ("ICAM"), for railroad intermodal operations; and
- Truck Cost Analysis Model ("TCAM"), for the existing trucking operations.

Intermodal Costs: ICAM is based upon the Uniform Rail Cost System ("URCS") methodology. It is updated on a quarterly basis and is provided with new carrier data files annually. Reports and data based on URCS have been used in a number of regulatory proceedings over the years, including the recent UP/SP and BN/Santa Fe applications.

ICAM uses Commission-generated data files on rail carriers; 1995 data were used for CSX, Conrail, NS, and Southwest connections (Union Pacific was selected as representative). The CSX profile was adjusted from the standard URCS file issued by the STB, to account more fully for intermodal traffic. This was necessary because not all intermodal elements normally captured in railroad R-1 reports - which in turn are the source of the expense and activity inputs to URCS costing - appear in the CSX accounts. The purpose and result of the adjustments[1] was to make CSX URCS costs fully comparable to those of other railroads. For cost analysis of post-acquisition operations, the adjusted CSX URCS file was combined with Conrail's on a pro forma basis, and a five percent efficiency savings applied as a general, conservative estimate of the expense benefits of the acquisition.

In addition to URCS factors, ICAM allows for the insertion of specific data, where available. Carrier files in the model were supplemented with intermodal cost items furnished by CSX for this analysis. Some of these items are:

- average trailer and container cost per day;
- intermodal car costs, per day and per mile;
- terminal costs, for loading and unloading; and,
- specific terminal drayage costs.

---

[1] The adjustments were calculated by the consulting firm of Klick, Kent, Allen (KKA) and provided to Reebie Associates in the conventional form of URCS tables. KKA also prepared the pro-forma combination of Conrail with CSX, using URCS.

Operating cost data for AC-traction locomotives were also supplied and used. These modern and efficient power units are typically reserved for high-volume, dedicated train operations, which the post-acquisition system makes possible in new intermodal service corridors.

Present and post-transaction terminal-to-terminal carrier mileages were provided by the consulting firm of ALK Associates from their railroad network and routing model, and were used in the analysis. CSX supplied current corridor baseload volumes and regional balance patterns for domestic trailer/container units. This information formed the basis of train size and empty-return assumptions. The cost burden of trailer/container empty return was shifted largely to the headhaul (higher volume) direction in a lane, where supply/demand relationships enable it to be recovered in the price.

Empty-return levels must be assessed for rail cars as well. A uniform level of 7 percent empties was used pre-acquisition, and 4 percent post-acquisition. The pre-acquisition percentage reflected the actual performance of intermodal equipment on Conrail; the post-acquisition figure is an estimate reflecting improved utilization in a larger system with substantially more loading opportunities. Lastly, cars were assessed one empty container slot or trailer hitch for every nine filled. CSX believes that its established utilization trend makes this factor achievable; this conclusion is further supported by the geometric expansion of reloading opportunities created by the larger, post-acquisition network, and by the railroad industry's move toward smaller, separable car sets.

The analyses determined terminal-to-terminal costs appropriate to the carrier, volume and balance, based on Intermodal Service Code 25. The Code indicates a service arrangement where the railroad provides terminal-to-terminal service with its equipment, but does not supply drayage. Drayages were specified in addition, for measurement of door-to-door costs and times. (In practical terms, Code 25 functioned

equivalently to Code 15, which is an identical service except that private trailer/container equipment is used; the cost profile of equipment was essentially the same in the analysis for railroad units and for private in over-the-road service.)

A great variety of equipment, train types and service configurations prevail in intermodal service, all of them influencing cost. In the equipment pattern common for many years, however, trailers were preferred for domestic traffic and containers for international. Disruption of this pattern began in earnest during the 1990's and was motivated by a quest for standard fleet equipment usable in many transportation venues, which manifested in a move toward containers for domestic as well as overseas business. We have assumed a blend of 53-foot, 48-foot, and 40-foot trailer/container units for both TOFC and stack train service. 53-foot units are the largest in the TOFC mix but the smallest for stack, giving way to shorter boxes; while domestic container service tends to favor the larger varieties, a 53-foot unit is still atypical. We have also assigned a secondary portion of TOFC volume to 45-foot rail trailers, whose role is diminishing but are apt to remain in service for the period considered in this analysis. Containers have been mounted on well cars and trailers on spine cars, both types articulated and representing the preferred technology.

Intermodal operators have a record of equipment innovation, and fleet purchases in the years ahead are apt to improve the competitiveness of railroads. Reductions in tare weights and aerodynamic resistance, and improved braking and train control systems should lower rail linehaul costs, boost service levels and effective capacity, and add to profitability. Technological progress strengthens the case for long term intermodal business levels; still, benefits such as these were considered to be outside the scope of the transaction and were not treated in the analysis.

B. Truck Cost Inputs

The truck cost model used in our analysis incorporates expense information covering driver, fuel, tractor, trailer, insurance, taxes and overhead components, as well as a variety of use patterns and operating factors. The model is updated annually, using inputs from carriers and information from trade associations, publications and government agencies. In this study, cost levels reflect the expense and operating profiles of those longer haul, non-union truckload carriers whose size, profits and growth have made them industry standards. Costs were viewed at both variable and full cost levels and incorporate a six and a half percent profit, in keeping with the actual performance of the profile motor carriers. Cost levels were checked against rate patterns of the over-the-road market; typically, rate levels are substantially lower where there is a chronic surplus of empty trailers, approximating variable costs as generated by the model. Variable costs were applied where this held true, otherwise full costs were employed. Obviously, driver wages are a significant element in each. Although driver pay has risen this past year and may continue to rise, we have not incorporated that fact in costing and have a conservative result in this respect.

The analysis assumes a 15-ton payload per trailer, which is the average per trailer for truckload carriers for which we have data and is consistent with our industry experience, as well as with CSX studies of highway traffic. Since the analysis looks at diversion from the highway, this "typical" payload is utilized in both the intermodal and truck costing.

Throughout the study the standard van size used is a blend of 53-foot, 48-foot, and 40-foot equipment, comprised chiefly of trailers but including containers mounted on chassis. While large numbers of 48-foot equipment are still in operation, the 53-foot dry van has become the domestic unit of choice in the 1990's; the 40-foot unit is the most common in overseas trade, although bigger and smaller boxes are used and all

can appear with domestic shipments. We have assumed a mix of 68% 53-foot, 17% 48-foot, and 15% 40-foot units for all over-the-road operations. This is a comparable equipment mix to that adopted for trains in intermodal costing. Temperature-controlled units were not separately costed. With similar service profiles, the incremental cost of substituting reefer equipment will affect intermodal and highway service about equally.

LTL traffic represented 16% of the available highway business, and also was not costed separately. The unique operating characteristics of this trucking industry segment are mainly in pickup and delivery and in consolidation, rather than in the linehaul function to which intermodal appeals. The 28-foot equipment that is often employed in LTL linehaul - usually as a double trailer - is compatible with intermodal operation, and the total two-trailer payload is approximately that of a conventional truckload because of consolidation and service constraints. Unionized labor is common in the longer distance LTL lanes, pushing wage costs higher than a non-union truckload carrier.

Highway mileages were based on specific city pairs, the distances derived from ALK Associates' PC*Miler, using their "practical" routes. The highway service levels include travel time positioning to the loading point, loading time, origin time on local roads, highway linehaul and destination local time, and unloading. Obviously, the extent to which each aspect comes into play will vary by the trip. We have developed a representative profile for the time consumed in highway operations, with conservative assumptions that produce attractive over-the-road service and good utilization of trucking equipment. This profile was used to generate transit performance and related cost factors for each lane, and the results have been integrated in the diversion model.

Repositioning of empty equipment is a basic component of freight operations and an important determinant of efficiency. Traffic volumes are imbalanced for most lanes and geographic areas to some degree. Carrier efforts to overcome imbalance are complicated by the distance between unloading and loading points and by variance in

the availability of freight, by day of week, time of month, and season. Patterns of imbalance are accounted for in this study both for intermodal and over-the-road operations.

Our analysis of repositioning in highway freight starts from a determination of "surplus" or "deficit" status for geographic areas. The status connotes the demand for equipment and reflects the relative balance of inbound and outbound interstate freight. Thus, a surplus area has more empty trailers available than loads to fill them, and a deficit area the reverse. In order to capture the efficiency that highway operators are able to produce, surplus and deficit ratios were based on composite patterns of trailer loadings by state from a number of large motor carriers. Clearly, a portion of equipment is always balanced: if there are two trailers for one load, one trailer is balanced and the other not. Even so, the balanced trailer will have to travel some distance locally to reach its load. Repositioning was then calculated by area as a weighted average of empty miles, combining the local movement of balanced equipment, with the longer movement of imbalanced equipment between surplus and deficit regions. Finally, for each lane the burden of repositioning was shared between origin and destination areas, so that empty costs reflect balance dynamics at both ends of a shipment.

VERIFICATION

Joseph G. B. Bryan, being duly sworn, deposes and says that he has read the foregoing statement and that the contents thereof are true and correct to the best of his knowledge and belief.

Joseph G. B. Bryan

Subscribed and sworn to before me the 2nd day of June, 1997.

Notary Public

JEAN R. THOMSON
Notary Public
My Commission Expires June 30, 1998

VERIFICATION

Joseph G. B. Bryan, being duly sworn, deposes and says that he has read the foregoing statement and that the contents thereof are true and correct to the best of his knowledge and belief.

Joseph G. B. Bryan

Subscribed and sworn to before me the 2nd day of June, 1997.

Notary Public

JEAN R. THOMSON
Notary Public
My Commission Expires June 30, 1998

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

VERIFIED STATEMENT OF JOHN Q. ANDERSON

VERIFIED STATEMENT
OF
JOHN Q. ANDERSON

INTRODUCTION

My name is John Q. Anderson. I am Executive Vice President, Sales and Marketing for CSX Transportation. I have held this position since May 1996 when I came to CSX from Burlington Northern Santa Fe where I was Senior Vice President, Coal, Metals and Minerals. During my six years at Burlington Northern, prior to the merger of Burlington Northern and Santa Fe, I had responsibility at various times for sales and marketing of merchandise commodities and for intermodal traffic. Prior to joining Burlington Northern in 1990, I spent 13 years with McKinsey & Company, an international consulting firm, where I consulted extensively on marketing, sales and logistics issues. I have an M.B.A. from Harvard Business School and a B.S. in mechanical engineering from Stanford University.

As the senior commercial officer for CSXT, I am responsible for the railroad's commercial performance and its relationships with its customers. Our objective at CSX in the commercial area is to provide our customers with a transportation service that delivers a value sufficiently attractive that they

continue to buy our service and grow their business with us. We are also responsible to our shareholders to ensure that the service we provide yields acceptable returns on the assets we use. Our service and price package must constantly be evaluated in light of competition from other transportation options. We must also respond to a customer's option to use another facility not served by CSX or to reduce output at a facility that we do serve. We strive to price our services in light of the customer's commercial needs and to maintain a superior value in the customer's eyes.

The purpose of my testimony is to provide a commercial overview of what the proposed joint acquisition of Conrail by CSX and Norfolk Southern means for CSX, for our customers and for the public at large. In brief, the ramifications of this transaction are more emphatically positive than those of any other transaction in the rail industry that I am aware of. CSX customers will realize direct benefits from the creation of a more efficient CSX rail network that will provide single-line service to every significant commercial area and most major ports in the eastern United States. Not only will our customers receive better service on existing movements, they will be able to extend their reach into new geographic areas where they may not have been competitive before. And customers with facilities

in the newly created Shared Assets Areas will be able to choose between two first-class railroads with broad network coverage instead of the more limited Conrail system that is currently their sole provider of rail service. Perhaps most important in the long run, the proposed transaction holds out the promise that railroads will no longer be consigned to a distant second place in the competitive struggle with trucks. The creation of efficient, long-haul, single-line routes -- particularly between the Northeast and the South and Midwest -- will allow us to compete head-to-head for both carload and intermodal traffic. Taking trucks off the highway yields benefits to our customers, our shareholders and the general public.

In my testimony, I will provide an overview of the commercial implications of the transaction for our general merchandise, coal and automotive traffic. More detailed discussions of those traffic groups is set forth in the testimony of three CSX marketing personnel who report to me, Christopher P. Jenkins (general merchandise), Raymond L. Sharp (coal) and Dale R. Hawk (automotive). I will then discuss in greater detail the significance of the transaction with respect to our intermodal traffic, which is the largest single growth area that we anticipate as a consequence of the transaction.

I. THE TRANSACTION WILL RESULT IN A MORE EFFICIENT CSX RAIL NETWORK THAT ALLOWS US TO SERVE OUR CUSTOMERS BETTER

Today, CSX operates an extensive rail system that provides excellent coverage of the midwestern, mid-Atlantic and southeastern United States. Since the Staggers Act was passed in 1980, we have invested $9.6 billion in this railroad system to bring it to its current condition. This capital investment is one aspect of the restructuring we have undertaken to make ourselves leaner, more efficient and more service oriented.

Despite our intense efforts to improve the quality of our service, we run up against limitations inherent in the structure of our current rail network. The most obvious one is that today we cannot serve the major commercial areas of New Jersey, New York and New England except through interline service with Conrail. As a practical matter, this dependence on interline service seriously curtails, and in some cases even precludes, our ability to link together important market segments, such as the fruit and vegetable producers of Florida on the one hand and the consumers of metropolitan New York on the other hand.

A second limitation of our rail network as currently configured is the significant congestion and attendant delay that we regularly experience on traffic moving over the important

commercial hub of Cincinnati. The configuration of our rail lines and patterns of supply and demand have conspired to make Cincinnati a chokepoint on our system. Currently, both major east-west traffic flows and major north-south traffic flows pass through our Queensgate yard in Cincinnati. We do not have enough capacity at Queensgate to classify expeditiously the traffic moving through that yard.

A third limitation of our existing system involves our current inability to bypass the congested Chicago gateway. We need to interchange east-west traffic with western carriers in Chicago, which is the hub of freight rail activity in North America and the point of intersection between the lines of CSX and western carriers, among others. Congestion and delays resulting from interchanging traffic in Chicago are chronic. Therefore, we have an incentive both to use alternative gateways and to create blocks of traffic that can bypass Chicago.

I realize that I have been addressing operations as much as sales and marketing. But it should not be a surprise that a railroad commercial officer would equate operating efficiency with commercial success or would identify operating impediments as the source of commercial limitations. In today's environment, the ability to attract traffic to the railroad and retain it depends on our ability to provide the service that our

customers demand. Our service is a function of our operations. Thus, the commercial significance of the proposed transaction is not only that CSX is acquiring a portion of Conrail's traffic base but also that CSX will be operating a more efficient rail network. This more efficient network will allow us to better serve our existing customers, better serve the Conrail customers who will become CSX customers and attract new business.

Improved customer service and traffic growth are the keys to CSX's long-term success. These two goals are directly linked in that improved service is a powerful driver of traffic growth. The allocation of Conrail lines and other assets to CSX will give us a major boost in our ongoing efforts to achieve these twin goals. If approved, the transaction will result in an expanded, more efficient CSX rail network. New single-line service and more efficient routes will mean better service for existing customers and will enable us to attract new customers to the railroad. The extension of our network will give our customers access to new markets, resulting in additional business for them and for us.

From a commercial point of view, the most prominent network efficiency is the creation of new single-line routes between points in the Northeast currently served by Conrail and points in the South and Midwest that are served by CSX. The

inherent efficiencies of single-line rail service are beyond dispute. Many of the particulars are described in section 3 of our operating plan and in the testimony of Messrs. Jenkins, Sharp and Hawk. I would emphasize that the creation of these single-line routes will allow us to fulfill the potential of the strong north-south route structure of the existing CSX network. Single-line access to New Jersey, New York and New England will facilitate the efficient movement of some of our most important commodity flows to and from the South, including chemicals, lumber, paper products, metals and, as discussed in more detail below, intermodal traffic.

The creation of these efficient north-south CSX routes will be complemented by the emergence of a more efficient east-west route structure that makes use of existing CSX and Conrail east-west lines. The new CSX system will have the flexibility and capacity to provide optimal routing for different categories of traffic moving between New York and Chicago. From Chicago to Greenwich, Ohio, near Cleveland, we will use CSX's existing B&O route, which will be upgraded to accommodate time sensitive traffic. Between Chicago and Crestline, Ohio, also near Cleveland, we will operate a second line running through Fort Wayne, Indiana. This line will be used primarily by unit trains handling coal and agricultural products. From Greenwich,

Ohio to the New York/New Jersey area, we will also operate two routes -- the former New York Central water level route via Buffalo and Albany, and the former B&O route through Baltimore and Philadelphia.

East-west flows will further benefit from our operation over the efficient Conrail route between Cleveland and St. Louis. In addition to allowing faster transit times for traffic moving over CSX lines between St. Louis and Cleveland, this new route should attract some traffic away from the congested Chicago gateway. Best of all, the Conrail line will allow traffic moving between St. Louis and CSX destinations in the East to bypass Cincinnati and the congested Queensgate classification yard. The reduction of east-west flows through Queensgate will allow us to use that yard primarily for north-south traffic, which will help expedite those traffic flows.

A more efficient rail network translates into better service through reduced transit times and greater reliability. The extension of our single-line system will translate into new commercial opportunities for our customers:

> [We are] . . . a finisher of stamped, fabricated and cast metal products. . . . With the increased number of destinations which become available by single-line service, we can drastically increase the

> amount of freight shipped via rail, reducing both our own and our customer's costs. Currently, we have only one destination which is single-line serviced. With the new acquisition, three more General Motors plants will be added at an estimated cost savings of 17% of our current trucking charges."
>
> Universal Applicators, Inc.
> Grand Blanc, Michigan[1/]

> Farm Fresh [is] a fruit and vegetable supply company. In my business . . . timely delivery is everything. It's always a race against time to get produce from the field to the shelf. Even several hours delay in the arrival of Florida oranges can create major problems for my retail customers. For far too long, the Conrail bottleneck for shipments coming through New Jersey has created needless delay as container cars are shifted off CSX cars and onto Conrail lines. . . . Any change in the transport structure that reduces delays, makes for more direct service and creates pressure for lower prices is going to give me a chance to take my produce to new customers -- and offer existing customers products and produce I literally could not get to them before.
>
> Farm Fresh, Inc.
> Bronx, New York[2/]

These comments suggest the kind of opportunities that our customers expect to see from the transaction and that we expect to deliver to them. Additional examples of new opportunities for our customers are addressed in the verified statements of our other marketing witnesses.

1/ V.S. of Thomas, Vol. IV E.

2/ V.S. of Mazzella, Vol. IV C.

II. THE TRANSACTION WILL ENSURE THAT CSX AND NORFOLK SOUTHERN COMPETE VIGOROUSLY WITH EACH OTHER THROUGHOUT THE EASTERN UNITED SATES

Today CSX and Norfolk Southern serve the same basic territory in the midwest, mid-Atlantic and southeastern regions of the country. We are vigorous competitors. Norfolk Southern is renowned as an efficient and well-run railroad. We can only win the competitive battle by being more efficient and providing our customers more opportunities. That is the challenge we have set for ourselves.

Now that challenge will be played out on a broader scale. Both CSX and Norfolk Southern will be able to provide efficient service to the major commercial areas of Baltimore, Philadelphia, New Jersey, and metropolitan New York. And although CSX alone will have the right to operate Conrail's existing lines into New England, Norfolk Southern has already signaled its intention to compete in New England through interline arrangements with other carriers. We expect Norfolk Southern's competitive presence in New England to be significant.

The expanded arena of competition between CSX and Norfolk Southern can only be a plus for our customers. As the Executive Vice President in charge of Burlington Northern Santa Fe's coal transportation business, I observed first hand the

service improvements for coal shippers that were prompted by two-carrier service to the Powder River Basin. Of course, there was downward pressure on rates as well. I expect that we will see intensified rail competition on much of the traffic moving into and out of the Mid-Atlantic and New England regions if the transaction is approved.

While head-to-head rail competition will increase, not all customers will find that the transaction creates the option of two rail carriers directly serving their facilities. Even so, the presence of two strong rail carriers throughout the East, coupled with the competitive options provided by other modes and by alternative sources of supply, will mean that an individual railroad will always be constrained in the price that it can charge to customers. And we will always face pressure to negotiate rate and service packages that keep our customers competitive in their own markets.

As Mr. Jenkins explains more fully in his testimony regarding general merchandise traffic, truck competition in particular is pervasive and intense in our current service territory and Conrail's service territory. Trucks are a potent competitive force throughout the United States, but particularly in the East. The distances between most commercial areas is shorter in the East than in the West and there is a greater

density of shipping and receiving points. As a result, there are numerous opportunities for relatively short truck hauls in the East, as well as opportunities for longer hauls. The economics of truck movements are favorable for short hauls, even on heavy-loading traffic. Thus, it is common to find coal, grain, aggregates and other heavy-loading commodities moving by truck in the East. And, of course, these heavy-loading commodities are particularly well-suited to long hauls by barge and coastal vessels, which is why we find water-borne alternatives to be a viable competitive option for many movements in our service territory.

Trucks and barges need not provide the complete haul from origin to destination in order to create a transportation option that is competitive with an all-rail movement. More and more we find that transload operations create effective truck-rail, truck-barge and barge-rail competition for all rail movements. For example, Burlington Northern Santa Fe trucks lumber and other commodities deep into CSX territory from its eastern terminus at Birmingham, Alabama. This effectively provides a cap on rates that we can charge on all-rail movements terminating in the geographic area that BN serves by truck. Another example of modal competition involving transloads is the rail-barge delivery of coal to Florida utilities for which CSX is

the sole rail option. A third example involves caustic soda that is barged from the Texas/Louisiana Gulf Coast to ports on the southeast Atlantic Coast and trucked into paper mills in CSX service territory. If we want to handle that traffic, we have to compete head-to-head with the barge-truck movement, even though CSX is the only rail carrier serving the plant. We have lost business to the barge-truck alternative and know first-hand the competitive pressures that come into play even when a plant has only single railroad service.

Beyond these modal alternatives, our prospective customers have become increasingly skillful at exploiting the competitive opportunities that may be afforded to them by virtue of product and geographic competition. For example, our coal-burning electric utility customers often have more than one generating plant. Their other plants are often served by another railroad or burn fuels other than coal. They use their options to reduce generation and coal burn at a CSX-served facility to extract concessions from us that are related to their other options. These options provide substantial commercial leverage for customers, even when there are not competing railroads serving a facility.

Similarly, agricultural commodity customers can choose whether to use CSX to transport soybeans into a crushing mill to

make soybean products for the consuming market or whether to crush the soybeans at a different facility near the growing regions and use another transportation provider to transport the soybean products to the consuming market.

Customers who are contemplating the construction of new facilities have great competitive leverage in deciding where to site their new facilities. In this connection, I expect that the dual presence of CSX and Norfolk Southern in areas that were previously served only by Conrail will stimulate economic growth as businesses choose to locate their facilities in commercial areas where they will have access to two rail carriers. Facilities located in the shared assets area will establish the competitive baseline for commercial transactions involving the commodities that they produce or consume. Accordingly, after the transaction CSX will need to make sure that the facilities for which it provides sole rail service are competitive with facilities located in the shared areas. And we will have strong incentives to offer price and service packages to induce customers to locate on our lines. It will make sense for customers to site facilities on CSX because competition from the shared areas will constrain us from charging higher prices at facilities that are served solely by CSX. Moreover, both our shareholders and our customers will benefit from our ability to

spread fixed costs across a broader traffic base and to commit to capital investments that are justified by the assurance of continued volumes of traffic on our lines..

III. THE PROPOSED TRANSACTION PRESENTS AN UNPARALLELED OPPORTUNITY FOR CSX TO ATTRACT TRAFFIC FROM THE HIGHWAYS

While the pervasiveness of truck traffic in the East presents our greatest competitive challenge, it also represents our greatest opportunity. Trucks are currently the lopsided winners in the battle for freight business in the East. We have been working to change that. The creation of an expanded, more efficient rail network incorporating Conrail's lines will be the vehicle for CSX to realize major gains by attracting traffic that is currently moving over the highways.

There are two broad categories of truck traffic on which we expect to realize significant gains as a result of the transaction. The first is traffic currently moving in trucks that is suitable for movement in conventional rail cars (e.g., boxcars, gondolas, tank cars) from origin to destination. This carload traffic, and our projection of traffic gains on carload traffic, is discussed in greater detail in the Verified Statement of Christopher P. Jenkins.

The second category of traffic that we expect to divert from the highways is intermodal traffic, or traffic that moves on rail flatcars (and other specially designed intermodal

equipment) in trailers (vans) or containers. In the remainder of my statement, I want to discuss the benefits to the shipping public and to CSX that will result from the creation of an enhanced CSX intermodal network.

A. CSX's Current Intermodal Operations

CSX today provides extensive intermodal services to shippers on its rail network between points in the Southeast, Midwest and Mid-Atlantic states and through mid-continent gateways. This service involves the shipment of trailers and containers by rail in conjunction with a prior and/or subsequent movement by ocean carrier and/or truck. A domestic movement of an intermodal container of manufactured goods might originate with a truck haul from a point of manufacture near Chicago to a proximate intermodal terminal served by CSX, continue with a long-haul rail movement of the container from Chicago to Jacksonville and then terminate with highway carriage a short distance from the Jacksonville terminal served by CSX to the final destination. Similar services involving movement of ocean containers, via ocean, truck and rail carriers, are offered to international shippers. This type of coordinated multi-modal service offers shippers the advantages of each mode -- direct, low-cost rail service for the long-haul combined with ocean carriage and/or flexible truck service. Thus, intermodal service

offers a high-value, door-to-door service product with dependable performance and improved efficiencies for the shipping public.

The amount of freight transported intermodally has grown dramatically over the last several years. For example, intermodal volumes for the industry as a whole grew over 21% between 1992 and 1996. A substantial portion of this growth is the result of the recognition by motor carriers -- both truckload carriers and in more recent years, less-than-truckload carriers -- that the use of intermodal services in partnership with railroads is in their interest. While all-highway carriage will remain dominant for short-haul traffic (typically less than 500 miles), use of rail services for long hauls is attractive to motor carriers because it allows them to reduce long-haul expenses and achieve other efficiencies, while offering a partial solution to the persistent shortage of qualified truck drivers.

We expect intermodal traffic to grow significantly over the next several years, even without the transaction. But, as I will discuss, the transaction will be a catalyst for greater growth than either CSX or Conrail would be able to achieve if the transaction were not to occur.

The growth in volume of intermodal traffic has allowed railroads to make service and capital commitments that enhance the value of the intermodal product to their customers.

Railroads now offer dedicated, regularly scheduled intermodal train service and thus deliver a reliable and consistent product. Also, intermodal freight is often transported on specially-designed double-stack and articulated rail cars, which provide a smoother ride and reduced damage, enhancing the productive use of equipment and allowing railroads to increase the volume/density on trains.

Intermodal operations have also grown because they have become increasingly attractive to long-haul truckload and less-than-truckload motor carriers who find that intermodal services can both reduce their costs of providing long-haul transportation and allow them to meet the demanding delivery requirements of their customers. In comparison to highway services, the transportation of freight by long-haul rail service is more energy efficient and emits fewer air pollutants. Intermodal traffic also makes productive use of the privately-financed rail infrastructure, rather than the publicly financed highway system.

The advantageous features of intermodal service will be enhanced significantly by the proposed transaction for the simple reason that the consolidated CSX network will be able to offer more attractive, efficient and competitive intermodal services than CSX or Conrail alone can offer today. CSX's

broadened single-line intermodal service network will replace both the joint-line service provided by CSX and Conrail today and single-line CSX service combined with extended highway drayage of freight.

B. The Acquisition Will Improve the Efficiency and Competitiveness of Intermodal Service

The most direct and immediate advantage that intermodal shippers will experience from the proposed transaction is new or extended single-line service on major north-south and east-west intermodal routes. These are: (1) the service route which parallels interstate highway I-95 between Florida and points in the Southeast, on the one hand, and the Northeast and New England, on the other (the "I-95 route"); the service route that parallels interstate highway I-85 between Atlanta and other southeast points, on the one hand, and the Northeast and New England, on the other (the "I-85 route"); the service route that roughly parallels interstate highway I-75 between the Southeast and the Midwest (the "I-75 route"); and the service route between Memphis and the Midwest on the one hand, and the Mid-Atlantic, Northeast and New England, on the other (the "Memphis Gateway route"). The new single-line services offered on these and other routes will make CSX more highway-competitive

on each route, thus providing shippers with new transportation options and expanded geographic reach.

In addition to the routes which CSX will be able to offer new or extended single-line intermodal service, CSX also anticipates that it will experience significant growth over current Conrail east-west routes, primarily those linking the Northeast and the Midwest (e.g., Chicago-New York). This growth will result from highway diversions stemming from CSX's ability to offer the type of frequent and reliable intermodal service that will be most attractive to the large number of potential intermodal customers over these routes.

The keys to providing these new intermodal service offerings that will attract traffic from all-highway carriage are reduced transit times, lower costs, network flexibility and the provision of frequent and consistent service. Expanded single-line rail service enables the improvement of intermodal services in each of these areas.

Reduced Transit Times. CSX will achieve faster transit times on intermodal traffic as a result of the transaction. Terminal and car handling delays inherent in interchanging freight between two or more railroads -- each of which operate on different schedules -- will be eliminated. Such delays can sometimes add a full day or more to transit times,

thereby either rendering joint-line intermodal service significantly less attractive, particularly for time-sensitive shipments, or eliminating it entirely as a competitive option. While CSX has been able to work with other railroads, and to some extent with Conrail (with which it has only one current joint-line intermodal service arrangement) to reduce transit times on the I-95 route, there are certain inherent difficulties in achieving joint-line transit times that can match those of single-line service. For joint-line intermodal service to work, the two carriers must coordinate their schedules. This requires a high level of commitment from both carriers, which is sometimes lacking because the high priority intermodal customers of one railroad may be lower priority customers of the other railroad. Further, if an intermodal shipment offers only a short-haul for one or both of the joint-line participants, it is unlikely that the cost structure will be low enough to induce either or both carriers to provide the services and maintain competitive transit times. These impediments will disappear with the creation of single-line intermodal routes.

Reduced Costs. Intermodal service can be advantageous to customers because it is frequently provided at a lower cost than all-highway service. To the extent that costs increase as a result of the extra handling of intermodal units associated with

the involvement of more than one railroad, intermodal service can become less attractive to shippers. Further, joint-line service is less attractive to railroads because its higher costs further reduce the already thin contribution margins characteristic of intermodal service. Therefore railroads are less able to establish joint-line intermodal relationships, especially when one or both carriers have a short haul. Moreover, because more than one railroad is involved, it can be difficult to agree on truck-competitive price reductions and therefore difficult to compete aggressively.

To the extent that single-line service allows a railroad to lengthen its haul on an intermodal shipment, the inherent advantages of lower-cost, long-haul rail transportation of large volumes of freight can be realized. The substitution of rail service for truck service entails environmental and public safety benefits.

Increased Frequency and Reliability of Service. The combination of CSX's existing traffic with current Conrail traffic that CSX is committed to retain (and expand) will enable CSX to achieve the freight volumes needed to provide fully competitive intermodal service. Traffic density is a key factor in determining the ability of a railroad to offer frequent and consistent service which most intermodal shippers require. The

increased densities that will result from the transaction will allow CSX to offer both new or improved intermodal services over routes that do not today have direct intermodal service. Increased volumes will also permit more frequent services needed to attract customers. These densities should allow CSX to build intermodal trains with large blocks of cars destined to a single destination, justifying more frequent service and facilitating more "steel-wheel" interchanges with western carriers.

C. Enhanced Services Will be Provided on Major Intermodal Routes.

The general advantages that will result from the transaction will be manifest over the major intermodal routes most affected by combining the existing CSX system with portions of Conrail's network. Over the **I-95 and I-85 routes**, CSX will be able to replace both joint-line rail service and extended drayage now provided to points north of the current CSX terminus at Philadelphia with new single-line service linking New England and the New York/Northern New Jersey area with the Southeast. New single-line intermodal trains will be operated six days per week in these corridors. For example, new intermodal service will be provided between Florida and Northern New Jersey, where CSX intermodal trains will connect with a new Atlanta-New England train operating over the I-85 route.

Over the **I-75 route**, the transaction will allow CSX to extend its single-line intermodal service from Southern points to points north of Cincinnati, such as Detroit, Cleveland and Western New York. This new service will allow third-morning deliveries between Florida and Detroit and between Florida and Cleveland.

Over the **Memphis Gateway route**, CSX will introduce new single-line intermodal service between Memphis (where CSX interchanges intermodal freight with Western railroads) and other points in the Midwest, on the one hand, and the Mid-Atlantic, Northeast and New England, on the other. Second morning service will be provided between Memphis and Cleveland and third morning service to Northern New Jersey, Philadelphia, Baltimore and New England points.

Currently, no direct intermodal service is provided on this Memphis Gateway route. The primary reason is that there is no one carrier that has the route structure that would enable the provision of single-line service and joint-line service has not been attractive over this route because it would require two relatively short (and thus less attractive) hauls. A significant amount of highway traffic will be attracted to the new single-line CSX service made possible by the transaction. That new service will benefit not only the traffic originating in or

destined to the Memphis area, but the large volume of traffic moving through the Memphis gateway to/from points in the Southwest and on the West Coast. Also, double-stack service will be provided in this corridor, allowing for the most efficient possible means of moving large volumes of freight that today are moving by all-highway service.

CSX's right to use existing Conrail lines will not only open up new single-line routes, but will also result in volume economies that allow CSX to provide more frequent and consistent service over routes on which CSX will have sufficient density to justify new services. For example, CSX intends to offer improved intermodal service between Indianapolis and Philadelphia/Baltimore. The combination of CSX's current traffic density and new traffic that CSX anticipates that it will attract from current Conrail shippers will warrant enhanced, and thus more attractive single-line intermodal services in this lane.

Further, the combination of current CSX and Conrail traffic at Chicago will allow CSX to optimize its use of its Chicago area lines and facilities. The increased volume density (allowing for efficient, "steel-wheel" interchange of large blocks of cars) and infrastructure improvements at Chicago terminals will serve to streamline the connections with other

rail carriers in Chicago. This will result in improved east-west service.

C. Intermodal Customers Will Benefit from Improved Equipment Utilization and Upgraded Intermodal Terminals

Users of intermodal services will be able to make more efficient use of equipment while enjoying the flexibility of the expanded CSX rail network that will result from the transaction. The broadened network will offer significantly greater opportunities to triangulate or quadrangulate equipment, reducing the degree of repositioning of empty containers and/or trailers that exists today. The number of empty movements will be reduced as intermodal users take advantage of significantly more options for finding freight for a container following a head-haul shipment.

The supporting testimony of Phillip C. Yeager on behalf of the Hub Group offers valuable insight into the benefits of improved equipment utilization that will result from the transaction. Noting that Conrail ships more empties than do other carriers due to its smaller route structure and the fact that it is a net receiver of equipment, Mr. Yeager observes that the transaction will allow for improved equipment handling resulting from greater densities:

> For example, CSX will be able to ship intermodal containers on loaded cars from Chicago to destinations in the Northeast, where that equipment can be loaded with new business for destinations in the Southeast. The equipment can then be loaded and carried back to Chicago, reducing the empty miles and increasing efficiency.[3/]

Indeed, following the transaction, it will not be uncommon for a single van to be used in several consecutive loaded movements, for example from Chicago to New York, New York to Cleveland, Cleveland to Tampa and then Tampa to New York. Since rail handling and transportation costs do not vary substantially based on whether a container is empty or loaded, the increase in the equipment utilization represents a real productivity increase.

Shippers will benefit as well from a broadened network of terminals to which their traffic can be transported by a single railroad. They will also benefit from the significant capital improvements to terminals and right-of-way which will be made. In Northern New Jersey, CSX will operate from a terminal in Little Ferry, as well as from Conrail's current North Bergen and Kearny terminals, which it will acquire. Intermodal traffic will also be handled from facilities shared with NS at Port Elizabeth, specifically, the Express Rail facility on the dock at

---

3/ V.S. of Yeager, Vol. IV C.

Port Elizabeth and the shared private APL terminal adjacent to the Kearny terminal. CSX intends to improve access to, and the efficiency of, the Little Ferry terminal by constructing connections between that terminal and Conrail's main line track that runs near that facility, adding parking and track capacity and a new gate. CSX will also obtain the right to use the E Port Yard property in the North Jersey Shared Assets Area, a location at which future intermodal expansion may occur.

CSX's intermodal operations in Philadelphia will be substantially improved. Approximately $15 million will be invested to move the intermodal operations from the Snyder Avenue terminal in South Philadelphia (which will be closed) to a new facility to be constructed on the site of Conrail's Greenwich Yard in South Philadelphia. Further, at a cost of an additional $4 million, new track will be constructed at Gray's Ferry to provide improved access to the Greenwich Yard. Through the expenditure of capital to build a new, larger facility at the Greenwich Yard and the new track, the efficiency of service for intermodal shippers and receivers at Philadelphia will be improved. A major part of this improvement will be generated by avoiding the time-consuming process required to break trains into the short blocks needed to access the Snyder Avenue terminal. Customers will see a service improvement of approximately three

hours of transit time. In addition, CSX will save over $2 million in annual operating costs.

At Cleveland, CSX will invest about $8 million to expand Conrail's Collinwood Yard, which will become a major Midwest intermodal hub for CSX. That Yard will be used to combine large blocks of intermodal cars moving to various destinations, creating separate dedicated intermodal trains destined for other intermodal terminals at Memphis, Chicago and points in the Middle Atlantic, Northeast and New England states. In addition, $4.2 million will be invested to purchase or update lift equipment at Collinwood and at the new terminal in Philadelphia.

At Chicago, approximately $39.5 million will be invested in a significant new intermodal facility to be constructed on the site of a former Pennsylvania Railroad yard near 59th Street, as well as in other Chicago-area improvements. These improvements include the expansion of Bedford Park terminal and Forest Hill terminal. To improve access to these intermodal terminals and facilitate east-west intermodal traffic moving through Chicago, CSX will also construct several connections in the Chicago area. An improved connection between the IHB lines at the east end of the Bedford Park facility will be constructed. Another connection will be constructed at the junction of the

B&OCT and the Belt Railway near 75th Street, and a connection will be constructed between the Belt Railway and Conrail's Lakefront Route. In addition, CSX will benefit from the construction by UP of a long-planned connection at Dalton between the UP and B&OCT lines, facilitating traffic moving to the Bedford Park facility and 59th Street. These four connections will significantly improve traffic flow into and out of Chicago-area terminals and thus reduce delays and improve consistency for intermodal shippers.

CSX will invest in significant upgrades to its currently-owned lines, as well as to Conrail lines that it will operate. Of particular relevance to intermodal traffic is the planned double tracking of lines between Cleveland and Chicago and the upgrading of signals and crossovers on those lines. When these projects are completed, CSX will have a world-class high speed intermodal link between Chicago and New York that will improve transit times and service reliability in that important corridor.

E. A Significant Volume of Freight Will Be Diverted From the Highways to Intermodal Service as a Result of the Transaction, Resulting in Substantial Public Benefits

The expanded CSX rail and terminal network will allow for extended rail hauls and, consequently, reduced drayage in many markets. Today, CSX drays a significant amount of

intermodal freight between several market pairs that, following the transaction, it will serve with direct, single-line service. These include Philadelphia to New York/Northern New Jersey and New England; Chicago to Columbus and Cleveland; and Cincinnati to Detroit. In connection with the proposed transaction, we have studied the volume of CSX intermodal cargo currently being drayed in these markets to determine the highway mileage savings, and the level of increased rail revenues that will result from extended rail hauls of this freight. The results of that study, and an explanation of the methodology used to produce it, are set forth as Appendix A to this Statement. As the Appendix shows, over 7.4 million truck miles and the higher costs associated with highway transportation will be saved, together with associated environmental benefits that are discussed in the Environmental Report accompanying the Application.

In addition to studying extended haul opportunities made available by the transaction, CSX engaged Reebie Associates to work with our intermodal marketing staff to study the extent to which the expanded intermodal network would attract additional highway traffic. The results of that joint CSX/Reebie highway-to-intermodal rail diversion study are set forth in the Verified Statement of Joseph Bryan of Reebie Associates, also submitted as part of this Application. As Mr. Bryan explains, it

is anticipated, based on our analysis of marketing opportunities and of the potentially divertable highway traffic in major intermodal lanes that over 320,000 units (trailers or containers) of freight now transported by highway will be diverted to the new CSX system as a result of the transaction. These diversions will result in part from the creation of the new single-line service routes described above, as well as from "synergy" growth resulting from the expanded network. Mr. Bryan estimates that this additional traffic will generate approximately $158.1 million in additional revenue for CSX.

The diversion of freight from highway to cleaner and more efficient intermodal transport will have significant public benefits in the form of air quality benefits, safety benefits and fuel savings. These benefits are described in the Environmental Report submitted with the application in support of the Acquisition. In addition to these public benefits, additional benefits in the form of lower logistics costs for shippers and highway maintenance and congestion savings are described in the Verified Statement of Dr. Darius Gaskins submitted with the Application.

CONCLUSION

The proposed joint acquisition of Conrail by CSX and Norfolk Southern will be good for our existing and potential

customers and good for our railroad. Shippers throughout the East will benefit from improved service and additional rail options. Competition will intensify. The positive aspect for CSX is the prospect of both near-term and long-term growth resulting from a more efficient rail network and the ability to attract freight from the highways. I urge the Board to approve the transaction expeditiously.

APPENDIX A

Intermodal Extended Haul
Study Methodology

A study was undertaken by CSX intermodal marketing personnel to assess whether the proposed operation of Conrail routes by CSX would extend the haul of the CSX rail portion of intermodal movements that are currently transported on CSX lines. The goal of the study was to identify the number of long-distance truck trips that will be saved as a result of the transaction and the corresponding number of highway miles saved. The study was focused on several lanes where (1) intermodal freight is currently drayed over the highways extensive distances between its origin and/or destination, on the one hand, and CSX rail terminals, on the other and (2) following the acquisition, CSX will be able to provide rail service more proximate to the origin or destination points.

The first step in the analysis was to choose the appropriate lanes to study. Based on existing traffic flows and the lines that will be acquired by CSX, the following major lanes were identified for analysis: Philadelphia-New York/Northern New Jersey; Philadelphia-New England; Chicago-Columbus; Cincinnati-Detroit and Chicago-Cleveland. In each of these lanes, the acquisition of Conrail lines will enable CSX to provide rail service in substitution for most of the existing highway drayage, thus resulting in a rail extended haul and fewer trucks traversing long distances on interstate highways.

The most important of these lanes were the Philadelphia-New York/Northern New Jersey and Philadelphia-New England lanes because drayage in those lanes to/from the CSX terminal in Philadelphia is generally of a greater length (often in excess of 300 miles) than in other regions along the existing CSX system.

The second step in the analysis was to determine the volume of intermodal traffic in terms of the number of trucks utilized to dray traffic over the highways between CSX rail terminals and the origin/destination points in the study. The source of data were records of officials at CSX terminals who are responsible for the daily operations and managerial decisions within the relevant areas.

The third step in the analysis was to determine the current annual highway mileage for the volumes of CSX freight drayed in each of the lanes that was studied. Distances between the origin and destination points in each lane were calculated using the Rand McNally Mile-maker System. Distances were determined between a central point chosen for each relevant

origin or destination at which there is no current CSX rail terminal and the nearest CSX rail terminal. For purposes of the analysis of highway mileage, study participants selected the specific points of North Bergen, NJ and Springfield, MA to represent the origin or destination of traffic moving to/from New York/Northern New Jersey and New England, respectively. The current annual mileage was determined by multiplying the distances in each lane by the annual number of truckloads of freight transported in each lane.

Expected post-acquisition drayage mileage factors were then assigned. A 100 mile round-trip post-transaction dray between the new rail terminal and local delivery points was assumed, except that a 50 mile factor was used for local New York/Northern New Jersey drays from the Kearny terminal and for drays in the local Detroit market. The 100/50 mile post-transaction dray factors were based on the conservative judgment of CSX officials as to the average distance between rail terminals that CSX will acquire in each relevant area and the location of consignees and consignors proximate to those terminals. The annual truckload volumes in each lane analyzed was then multiplied by the post-acquisition number of miles traveled.

Finally, the difference between the current truckload miles and the predicted post-acqusition truckload miles was calculated. This difference represents the predicted truckload mileage reduction in each lane.

A table summarizing the result of the study is set forth on the following page.

SUMMARY OF INTERMODAL EXTENDED HAUL STUDY

Origin	Destination	Annual Number of Truck Moves	Current Annual Truck Mileage	Predicted Mileage Reduction
Philadelphia	NNJ/NY	20,625	2,413,125	1,381,875
Philadelphia	New England	5,500	1,511,400	961,400
Chicago	Columbus	8,000	3,190,000	2,390,000
Cincinnati	Detroit	7,980	2,893,548	2,414,748
Chicago	Cleveland	550	296,560	241,560
TOTALS		**42,655**	**10,304,633**	**7,389,583**

VERIFICATION

STATE OF FLORIDA)
) ss.
COUNTY OF DUVAL)

John Q. Anderson, being duly sworn, deposes and says that he is Executive Vice President Sales and Marketing of CSX Transportation, Inc., that he is qualified and authorized to submit this Verified Statement, and that he has read the foregoing statement, knows the contents thereof, and that the same is true and correct.

John Q. Anderson

Subscribed and sworn to before me by him this 6th day of June, 1997.

Sandra Marie Campbell
Notary Public

SANDRA MARIE CAMPBELL
NOTARY PUBLIC, STATE OF FLORIDA
My commission expires June 22, 1998
Commission No. CC 386219
Bonded thru Patterson - Becht Agency

jso\verification blank

VERIFICATION

STATE OF FLORIDA)
) ss.
COUNTY OF DUVAL)

John Q. Anderson, being duly sworn, deposes and says that he is Executive Vice President Sales and Marketing of CSX Transportation, Inc., that he is qualified and authorized to submit this Verified Statement, and that he has read the foregoing statement, knows the contents thereof, and that the same is true and correct.

John Q. Anderson

Subscribed and sworn to before me by him this 6th day of June, 1997.

Sandra Marie Campbell
Notary Public

SANDRA MARIE CAMPBELL
NOTARY PUBLIC, STATE OF FLORIDA
My commission expires June 22, 1998
Commission No. CC 386219
Bonded thru Patterson - Becht Agency

jso\verification blank

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

VERIFIED STATEMENT OF ROBERT L. SANSOM

VERIFIED STATEMENT OF

ROBERT L. SANSOM

I. INTRODUCTION

My name is Robert L. Sansom. I am President of Energy Ventures Analysis, Inc. ("EVA"), an economics and consulting firm specializing in the study of coal, natural gas and electric markets here and abroad. I have a Ph.D. in Economics from Oxford University and have followed electricity and fuel-for-generation markets for more than 20 years. My resume is attached as Exhibit 1.

I have a detailed familiarity with coal production and utilization in the eastern United States. I am familiar with the coal producers in Central and Northern Appalachia, the consumers who buy the coal they produce, and the modes of transportation for the coals to power plants in the mid-Atlantic, Northeast, and Midwest regions, and for export markets.

I am also familiar with recent changes in electric utility regulation, particularly the post-1992 Energy Policy Act movement toward increased competition and deregulatory initiatives both of the Federal Energy Regulatory Commission ("FERC") with regard to wholesale bulk power markets, and at the state level with regard to retail wheeling. I presented testimony before FERC in the Order No. 888 proceeding, the landmark rulemaking in which FERC adopted "open access" transmission rules designed to facilitate expansion of the competitive bulk power market.[1] Before the Surface Transportation Board, I submitted testimony on behalf of the complaining utility regarding market dominance issues in Docket No.

---

[1] *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services: Recovery of Stranded Costs by Public Utilities and Transmitting Utilities,* Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996), order on reh'g, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048 (1997).

4[illegible].91, *West Texas Utilities Co. v. Burlington Northern Railroad Co.* I also recently presented testimony on behalf of the rail industry in the so-called "bottleneck" coal rate proceedings decided by the Board in late 1996, and on behalf of the applicant railroads in the Union Pacific/Southern Pacific railroad merger proceeding.[2]

In this proceeding, I have been asked by CSX to discuss the competitive impact that the proposed joint acquisition of Conrail by CSX and Norfolk Southern will have on the transportation of coal, taking into account the deregulation of the electric utility industry and year 2000 Clean Air Act ("CAA") compliance issues.

II. SUMMARY OF BENEFITS

The joint acquisition of Conrail by CSX and NS will result in significant benefits to the electric generating industry and coal producers. To assist the reader, a map of the major coal fields discussed is included as Exhibit 2. The major benefits are:

1. The transaction reduces the share of firms with sole source delivery of fuel and coal to electric generators within the electric power pools presently served by Conrail.

2. The transaction results in more efficient single line hauls for northeastern and mid-Atlantic power plants that currently rely on inefficient, interline rail hauls to purchase low sulfur Central Appalachia coal to meet environmental and other requirements.

3. The transaction provides increased coal source options to northeastern and mid-Atlantic electric utilities that must comply with January 1, 2000 acid rain SO_2 reduction requirements by giving these utilities single-line access to Central Appalachia low sulfur coal.

---

[2]STB Docket No. 41295, *Central Power & Light Co. v. Southern Pacific Transportation Co.* (served Dec. 31, 1996); STB Finance Docket No. 32760, *Union Pacific Corp. -- Control & Merger -- Southern Pacific Rail Corp.* (served Aug. 12, 1996).

4. The transaction gives producers of coal located on the lines of the former Monongahela Railroad, ("MGA coal") direct access to two origin carriers (NS and CSX). For coal consuming utilities, the proposed acquisition opens up the option of lower cost MGA deliveries to existing CSX and NS served destinations and to six new competitively served CSX and NS destinations. Also, MGA coal can be blended with Powder River Basin ("PRB") coal to compete with straight Central Appalachian coal for compliance with the CAA January 1, 2000 requirements.

5. The transaction reduces the cost of transporting CSX/B&O coal to the Great Lakes. This will benefit producers in terms of extending market reach and utility users that buy lake coal. It also will benefit buyers that can use the competition of lake delivery to discipline rail rates to single line rail served plants.

III. NEW UNIQUE COMPETITIVE FORCES RESULT IN POWER-BY-WIRE COMPETITION TO RAILROADS

A. Utility Power Pools (See Exhibit 3)

Conrail currently delivers coal to New York, the mid-Atlantic states, and to selected power plants in the Midwest. Electric utilities in those regions use coal to raise steam for turbines that generate electricity. Conrail's deliveries of coal compete with other modes of coal delivery, and all coal delivered to electric utilities competes with other types of generation-primarily nuclear, hydroelectric, and natural gas and oil-fired.

It is generally accepted that electric generators compete on the electric grid in power pools for the sale of electric energy and capacity. Power pools consist of power plants that are interconnected by high voltage power lines. Utilities have organized themselves into reliability councils known as National Electric Reliability Council ("NERC") regions that also function as power pools. Conrail directly serves power plants in the three NERC regions shown in Exhibit 3.

The mid-Atlantic Area Council encompasses eight electric utility companies that serve eastern and central Pennsylvania, New Jersey, Maryland, Washington, D.C. and the two Virginia counties located on the Delmarva Peninsula. Electricity in this region moves over the high voltage Pennsylvania-New Jersey-Maryland Interconnection grid, and the region is termed the "PJM" power pool. Conrail serves, either exclusively or in competition with truck or barge carriers, eighteen major power plants in PJM.

In its 1996 SEC Form 10-K Report to the Securities and Exchange Commission, Pennsylvania Power & Light ("PP&L") described the PJM as follows:

> "The PJM companies had 57.3 million kilowatts of installed generating capacity at December 31, 1996, and transmission line connections with neighboring power pools have the capability of transferring an additional 4 to 5 million kilowatts between the PJM and neighboring power pools. Through December 31, 1996, the maximum one-hour demand recorded on the PJM was approximately 48.5 million kilowatts, which occurred on August 2, 1995. PP&L is also a party to the Mid-Atlantic Area Coordination Agreement, which provides for the coordinated planning of generation and transmission facilities by the companies included in the PJM."

Recently, in the BGE/PEPCO merger proceedings before FERC, Williams, a witness of PJM member PEPCO testified: "PJM operates as a single system with centralized economic dispatch of the members' generators to obtain for all the members, the lowest cost power consistent with maintaining reliability."[3] FERC's decision approving the merger of PEPCO and BGE into Constellation Energy Corporation was based on a market definition that encompassed the generation

[3]Baltimore Gas & Elec. Co. & Potomac Elec. Power Co., Prepared Direct Testimony of A. W. Williams, Group Vice President, PEPCO at 15, FERC Docket Nos. EC96-10-000 and ER96-784-000 (Aug. 23, 1996).

of all ten members of the PJM power pool as well as imports from adjacent power pools.[4] This import capability represents 10% or more of PJM's capacity and 20% or more of the generation levels common in PJM about 80% of the time.

Conrail also delivers coal to the East Central Area Reliability ("ECAR") and Northeast Power Coordinating Council ("NPCC") power pools (see Exhibit 3). Only six major plants 2,100 MW of capacity in ECAR are served by Conrail. In NPCC, Conrail serves nine major power plants. ECAR and NPCC, as result of FERC Orders 888 and 889 described in the next section, like PJM, operate as integrated power pools.

B. Utility Deregulation: Order 888 And Retail Competition

Pursuant to the Energy Policy Act of 1992 and FERC's Orders 888[5] and 889 in 1996, a revolution is underway in the electric utility industry. FERC has required all power pools/ utility systems to file open access transmission tariffs for wholesale transactions. Utility companies are preparing for a deregulated era. In PJM, Pennsylvania and New Jersey have established deadlines for retail electric competition. New Jersey retail customers will be able to choose suppliers under a program that begins in 1998 with 5% to 10% of retail customers and reaching all customers by April 2001. In Pennsylvania, one-third of all customers will experience deregulation beginning in 1999 and

---

[4]See Baltimore Gas & Elec. Co. & Potomac Elec. Power Co., Opinion No. 41279, 79 FERC ¶ 61,027 (Apr. 16, 1997).

[5]*Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services*, Order No. 888 (1996).

all customers will benefit by January 1, 2001. New companies are buying and selling power; lower transmission tariffs are in place; merchant plants are under construction; and an Open Access Same Time Information System (OASIS) insures that all participants have the same power transmission and price information, which is available to them on the Internet.[6] The practical effect of these changes is to intensify competition for electric energy on the power grid.

Electric energy is sold on an hourly basis and is priced on a variable cost basis. Variable costs encompass the delivered fuel cost (FOB mine coal plus transportation) and variable operating cost translated through an efficiency factor (the heat rate) to a grid or bus bar (¢/Kwh) cost. The largest component of the energy price is the delivered fuel cost, making up about 75% of variable cost. As a result, increased competition means head-to-head hourly bids for energy between plants. The buyer purchases at the lowest bid price available. If rail served plants are not competitive, rail volumes are lost. This increases market pressure on rail rates. As new lower cost generation sources become available, rail rates must be lowered, or rail volumes will be lost.

Intensified competition results because OASIS levels the informational playing field, new entrants (marketers and independent power producers) are able to play the game, and the price of admission (wholesale transmission) is the same for all players. The power pool system is run not by agents of the monopoly utilities but by an Independent System Operator (ISO) which is managing a market where buyers are seeking the lowest cost generation from whatever source. Even before the

---

[6]Open Access Same-Time Information System and Standards of Conduct, Order No. 889, FERC Stats. and Regs. ¶31,037 (1996), order on reh'g, Order No. 889-A, FERC Stats. and Regs. ¶31,049 (1997).

implementation of competition at the retail level, wholesale competition has transformed the industry. And this is just the beginning.

Among the changes are:

- The end of passive markets. In PJM, a so-called "tight" power pool, under the old regime most power sales between utilities were pool or split-the-savings exchanges. This method resulted in a passive market managed after the fact by accountants. Now an active bilateral market has emerged where lost sales can be lost profits.

- The end of preferences for self-generation. In ECAR and NPCC, most utilities, not a pool operator, dispatched each utility's units. This in some cases led to a preference for self-generation, even if it were higher cost than available alternatives. FERC's deregulation of wholesale transactions gives wholesale customers the ability to by-pass high cost generation and buy from less expensive sources. If the low cost generation source is served by barge, truck, or another rail carrier, or fueled by a source other than coal, rail volumes and profits can suffer if rates are not lowered.

- A market requirement to consider power imports from other power pools. The price of transmission is now lower, public, and the same for everyone. Competition is intensified because the power-by-wire market is geographically larger. Deregulation has put the focus on transmission lines as an energy sources, not just as a guarantee of reliability. Rail volumes can be threatened for any or many of the 8,760 hours of the year. Very seldom are the inter-pool transmission lines into PJM, ECAR, and NPCC full.

IV. THE ACQUISITION REDUCES THE SHARE OF FIRMS WITH SOLE SOURCE DELIVERY OF COAL AND FUEL AND CONSEQUENTLY INCREASES COMPETITION TO GENERATORS IN POWER POOLS CURRENTLY SERVED BY CONRAIL

A. Conrail Deliveries After The Joint Acquisition by CSX and NS

Table 1 shows the rail delivery breakdowns (CSX or NS) for Conrail served plants after the proposed transaction. The table shows each plant's capacity, 1996 generation and 1996 coal

burn. Table 1 shows the total 1996 coal burn at the units affected by the acquisition of Conrail was 52.6 million tons. This was about 6.3% of 1996's total U.S. utility coal burn. In the first two categories (A and B), are destinations currently served exclusively by Conrail that will be served either by CSX or NS. By itself, the transaction increases competition at these plants because CSX and NS will each be seeking to maintain and increase rail volumes to these plants which compete with each other on their respective grids.

The second category in Table 1 represents the Conrail served plants that currently face not only product and geographic competition from the grid, but also competition from other modes of coal shipment. Because many of these plants are located close to the Ohio and Pennsylvania coal fields, there is substantial truck competition. Another group of plants enjoys lake access to coal deliveries via Lake Erie, which opens source competition to Central Appalachian, Pennsylvania and western bituminous and sub-bituminous coals delivered by multiple eastern and western railroads.

In the third category are two plants previously served by Conrail and an independent railroad (not CSX) that after the transaction will be served by NS and the same third carrier.

Table 1

CONRAIL SERVED PLANTS BY CSX/NS DELIVERY CATEGORIES

1996 DATA

Utility	Plant	State	Other Delivery	1996 Plant Operations Capacity MW	Generation GWH	Burn 1,000 Tons
Exclusively Served						
A. CSX						
Centerior	Ashtabula 5	OH		243.5	973.3	452
New York State E&G	Kintigh	NY		684.0	4,451.6	1,730
Orange & Rockland	Lovett	NY		387.1	1,697.8	720
PEPCO	Chalk Point	MD		683.5	3,521.0	1,319
PEPCO	Morgantown	MD		1,165.0	7,135.4	2,590
Rochester G&E	Beebee	NY		80.0	399.6	154
Rochester G&E	Russell	NY		257.0	1,095.8	440
				3,500.1	**19,274.5**	**7,405**
B. NS						
Baltimore G&E	Crane	MD		377.0	1,993.9	776
Delmarva P&L	Edge Moor	DE		251.0	1,286.1	536
Delmarva P&L	Indian River 1-3	DE		340.0	1,636.9	690
Delmarva P&L	Indian River 4	DE		418.0	1,302.0	561
GPU	Portland	PA		400.0	1,670.3	664
GPU	Titus	PA		237.0	1,192.0	500
New York State E&G	Milliken	NY		317.0	1,924.3	777
NIPSCO	Schahfer 14-15	IN		903.0	4,267.6	2,728
NIPSCO	Schahfer 17-18	IN		722.0	3,264.4	1,676
Pennsylvania P&L	Brunner Island	PA		1,446.5	7,545.1	2,924
Pennsylvania P&L	Martins Creek	PA		290.0	1,465.1	646
Pennsylvania P&L	Montour	PA		1,490.0	7,587.4	3,041
Philadelphia Electric	Cromby	PA		145.5	847.6	358
				7,337.0	**35,982.7**	**15,877**
Rail Competing With Other Modes						
A. CSX						
Centerior	Ashtabula C	OH	Lake/Truck	174.0	639.4	297
Centerior	Eastlake	OH	Truck	1,277.5	6,481.4	2,499
Centerior	Lake Shore	OH	Lake/Truck	244.0	82.7	66
Central Hudson G&E	Danskammer	NY	Barge	366.0	2,096.6	814
Niagara Mohawk	Dunkirk	NY	Lake	560.0	3,476.1	1,323
Niagara Mohawk	Huntley	NY	Lake	715.0	3,605.4	1,455
				3,336.5	**16,381.6**	**6,454**
B. NS						
Dayton P&L	Hutchings	OH	Truck	368.0	479.4	222
Jamestown	Carlson	NY	Truck	50.0	155.7	93
Key-Con Fuels	Conemaugh	PA	Truck	1,700.0	11,354.0	4,357
New York State E&G	Coudey	NY	Truck	84.5	581.6	231
New York State E&G	Greenidge	NY	Truck	106.5	584.6	232
Pennsylvania P&L	Sunbury 1-2	PA	Truck	146.0	1,150.9	742
Pennsylvania P&L	Sunbury 3-4	PA	Truck	229.5	1,304.0	594
				2,684.5	**15,610.2**	**6,471**
NS Rail With Independent Joint Delivery						
Detroit Edison	Monroe	MI	GTW, Lake	3,002.1	19,477.9	9,079
NIPSCO	Michigan City	IN	CSS	469.0	2,497.8	1,460
				3,471.1	**21,975.7**	**10,539**
Head-to-Head CSX/NS Delivery						
Atlantic Electric	Deepwater	NJ		128.5	459.5	190
Atlantic Electric	England	NJ		289.0	1,727.4	749
Detroit Edison	River Rouge	MI	GTW, Lake	510.5	3,079.1	1,475
Detroit Edison	Trenton Channel	MI	Lake	743.0	4,018.0	2,079
Philadelphia Electric	Eddystone	PA	Vessel	548.0	3,089.7	1,393
Vineland	Howard Down	NJ		23.0	28.1	15
				2,242.0	**12,401.8**	**5,901**
TOTAL				**22,571.2**	**121,626.5**	**52,647**

At the bottom of Table 1 are six plants that receive rail service from Conrail alone, but after the transaction, will be served by rail by both CSX and NS. These plants will enjoy new rail-to-rail competition from Central Appalachia as well as MGA coal. Half of these plants can also receive coal by water transportation methods.

B. Changes by Power Pool

1. PJM

Table 2 shows coal sources for the PJM power generators before and after the joint acquisition of Conrail. Today, Conrail-served plants in PJM represent 36% of coal generation and 17% of all generation in PJM. This is the largest single category of transportation in PJM for coal-fired power plants. After the acquisition, NS's share of PJM coal generation will be 26% and its share of all PJM generation will be 12%. CSX's current share of PJM coal generation is only 3% (only 1.5% of all generation). After the acquisition, CSX will deliver coal to 13% of PJM coal generation and 6.1% of all generation.

Table 2

PJM COAL GENERATION BEFORE AND AFTER ACQUISITION OF CONRAIL BY CSX/NS

Before			After		
	% Coal Gen	% All Gen		% Coal Gen	% All Gen
Conrail only	36.3	17.2	NS only	25.6	12.1
CSX only	3.2	1.5	CSX only	13.0	6.1
NS only	1.8	0.9	NS/CSX	3.3	1.6
Conrail/CSX only	0.5	0.3	NS/CSX w/Other	26.8	12.7
Conrail or CSX w/Other	26.8	12.7	Non-Rail	31.3	14.8
Non-Rail	31.3	14.8			

SOURCE: 1995 Data FERC Form 759, F

More detailed data on both capacity and generation and for all fuel types in PJM appears in Table 3. The left side of Table 3 shows the shares of PJM generation capacity for all fuel types based on 1995 data. At the top of the table are the pre-acquisition shares of capacity; at the bottom left of the table are the post-acquisition shares of capacity. These data show that Conrail exclusively serves 39.5% of the PJM's coal capacity in 13.4% of all PJM capacity prior to the acquisition, the largest share of coal capacity served. After the acquisition, NS will serve 29.3% of coal capacity exclusively in only 9.9% of all PJM capacity. Prior to the acquisition, CSX exclusively serves 3.2% of PJM's coal capacity and after the acquisition will serve 13% of all PJM capacity.

These data alone confirm that the joint acquisition of Conrail by CSX and NS will strengthen competitive conditions for the transportation of coal and fuel to PJM power plants. In

addition to reducing the concentration of PJM sole-source fuel sources, the Conrail acquisition will introduce more efficient service, further strengthening competition. At the same time, the addition of additional coal source competition will benefit utility generators and other coal buyers.

Table 3

PJM SOURCES OF CAPACITY AND GENERATION

	1995 Capacity			1995 Generation		
	Capacity	% Share		Gen.	% Share	
	(GW)	All Plants	Only Coal Plants	(TWh)	All Plants	Only Coal Plants
Before The Acquisition						
Coal-Conrail Only	7.7	13.4%	39.5%	38.9	17.2%	36.3%
Coal-CSX Only	0.5	1.0%	2.8%	3.5	1.5%	3.2%
Coal-NS Only	0.5	0.8%	2.5%	2.0	0.9%	1.8%
Coal-Conrail/CSX Only	0.1	0.2%	0.5%	0.6	0.3%	0.5%
Coal-Conrail with other	2.9	5.0%	14.7%	17.2	7.6%	16.0%
Coal-CSX with other	1.7	3.0%	8.8%	11.6	5.1%	10.8%
Coal-Non-Rail	6.1	10.6%	31.3%	33.6	14.8%	31.3%
Nuclear	12.8	22.4%	—	84.8	37.4%	—
Hydro	3.0	5.2%	—	1.8	0.8%	—
Combined Cycle	3.5	6.1%	—	15.6	6.9%	—
Oil/Gas Steam	8.4	14.6%	—	13.1	5.8%	—
Turbines	9.7	16.9%	—	0.9	0.4%	—
Other	0.5	0.9%	—	3.1	1.4%	—
Total	57.2	100.0%	100.0%	226.6	100.0%	100.0%
After The Acquisition						
Coal-NS Only	5.7	9.9%	29.3%	27.4	12.1%	25.6%
Coal-CSX Only	2.4	4.2%	12.3%	13.9	6.1%	13.0%
Coal-NS/CSX Only	0.7	1.2%	3.7%	3.6	1.6%	3.3%
Coal-NS with other	4.3	7.5%	22.0%	27.8	12.3%	25.9%
Coal-CSX with other	0.3	0.5%	1.4%	1.0	0.4%	0.9%
Coal-Other Rail	0.0	0.0%	0.0%	0.0	0.0%	0.0%
Coal-Non-Rail	6.1	10.6%	31.3%	33.6	14.8%	31.3%
Nuclear	12.8	22.4%	—	84.8	37.4%	—
Hydro	3.0	5.2%	—	1.8	0.8%	—
Combined Cycle	3.5	6.1%	—	15.6	6.9%	—
Oil/Gas Steam	8.4	14.6%	—	13.1	5.8%	—
Turbines	9.7	16.9%	—	0.9	0.4%	—
Other	0.5	0.9%	—	3.1	1.4%	—
Total	57.2	100.0%	100.0%	226.6	100.0%	100.0%

2. ECAR

ECAR (see Exhibit 2) is a large power pool stretching from western Maryland to the Indiana-Illinois border. Measured by capacity or generation, ECAR is twice the size of PJM, yet Conrail's role, as a percent of generation served, is one-third its role in PJM. Consequently Conrail's role in ECAR is very small. But the role of coal is more prominent in ECAR than in PJM. While in 1995 coal represented 47% of all generation in PJM, coal was 87% of ECAR's generation.

The key characteristic of coal deliveries to ECAR's power plants is the large role played by barge-served units either exclusively, or in combination with, rail deliveries. The deliveries of non-NS/CSX/CR railroads in ECAR play a larger role than NS/CSX together will play after their acquisition of Conrail.

Table 4 shows the results for ECAR, before and after the acquisition of Conrail. Before the acquisition of Conrail, CSX and NS each has as exclusive destinations less than 4% of coal generation and 3% of all generation. After the acquisition, neither CSX nor NS has exclusive service to more than 5% of ECAR coal generation.

Table 4

ECAR COAL GENERATION
BEFORE AND AFTER DIVISION OF CONRAIL ASSETS

	Before		After	
	% Coal Gen	% All Gen	% Coal Gen	% All Gen
Conrail only	3.0	2.6	-	-
CSX only	3.5	3.0	4.8	4.2
NS only	1.2	1.0	2.9	2.5
CSX/NS w/other	36.7	31.9	38.1	33.2
Other rail	11.3	9.8	8.6	7.5
Non-rail (primarily barge)	45.5	39.6	45.5	39.6

Table 5 shows the detailed data for ECAR, before and after the acquisition, with generation and capacity data for all sources and coal only. On a capacity basis, pre-acquisition, Conrail exclusively serves only 3.4% of ECAR's coal plants and 2.7% of ECAR's generation. After the acquisition, NS will serve 3.3% of ECAR's coal capacity and 2.6% of ECAR's total capacity. CSX exclusively serves 3.5% of ECAR's coal capacity and after the acquisition will serve 4.8% of ECAR's coal capacity.

In sum, competitive conditions in ECAR will not be significantly changed by the joint acquisition of Conrail by CSX and NS.

Table 5

ECAR SOURCES OF CAPACITY AND GENERATION

	1995 Capacity			1995 Generation		
	Capacity	% Share		Gen.	% Share	
	(GW)	All Plants	Only Coal Plants	(TWh)	All Plants	Only Coal Plants
Before The Acquisition						
Coal-Conrail Only	2.9	2.7%	3.4%	13.6	2.6%	3.0%
Coal-CSX Only	3.0	2.8%	3.6%	15.6	3.0%	3.5%
Coal-Conrail/CSX Only	0.0	0.0%	0.0%	0.0	0.0%	0.0%
Coal-Conrail with other	5.9	5.5%	7.0%	31.0	6.0%	6.9%
Coal-CSX with other	24.6	23.2%	29.4%	134.8	25.9%	29.8%
Coal-Other Rail Including NS	10.9	10.2%	13.0%	51.0	9.8%	11.3%
Coal-Non-Rail	36.4	34.3%	43.6%	205.6	39.6%	45.5%
Nuclear	7.4	6.9%	—	52.6	10.1%	—
Hydro	4.3	4.1%	—	1.8	0.3%	—
Combined Cycle	1.7	1.6%	—	9.3	1.8%	—
Oil/Gas Steam	3.5	3.3%	—	1.8	0.3%	—
Turbines	5.3	5.0%	—	0.8	0.2%	—
Other	0.2	0.2%	—	1.7	0.3%	—
Total	106.1	100.0%	100.0%	519.6	100.0%	100.0%
After The Acquisition						
Coal-NS Only	2.7	2.6%	3.3%	12.9	2.5%	2.9%
Coal-CSX Only	4.2	4.0%	5.0%	21.9	4.2%	4.8%
Coal-NS/CSX Only	0.1	0.0%	0.1%	0.1	0.0%	0.0%
Coal-NS with other	4.7	4.5%	5.7%	22.3	4.3%	4.9%
Coal-CSX with other	27.3	25.8%	32.7%	150.0	28.9%	33.2%
Coal-Other Rail	8.1	7.7%	9.7%	38.9	7.5%	8.6%
Coal-Non-Rail	36.4	34.3%	43.6%	205.6	39.6%	45.5%
Nuclear	7.4	6.9%	—	52.6	10.1%	—
Hydro	4.3	4.1%	—	1.8	0.3%	—
Combined Cycle	1.7	1.6%	—	9.3	1.8%	—
Oil/Gas Steam	3.5	3.3%	—	1.8	0.3%	—
Turbines	5.3	5.0%	—	0.8	0.2%	—
Other	0.2	0.2%	—	1.7	0.3%	—
Total	106.1	100.0%	100.0%	519.6	100.0%	100.0%

3. NPCC

NPCC (see Exhibit 3) is not a large region for coal generation. Based on 1995 data, coal generation represented only 19.4% of NPCC generation, placing it after nuclear generation and at about the same level as combined cycle gas-fired generation and oil/gas-fired steam generation. Table 6 shows the small shares (3.9%) of all NPCC generation for which CSX only and 1.3% for which NS only will deliver coal after the joint acquisition of Conrail. Non-rail coal deliveries to NPCC have a much larger share than the total of CSX and NS's deliveries.

Table 6

NPCC COAL GENERATION
BEFORE AND AFTER DIVISION OF CONRAIL ASSETS

	Before		After	
	% Coal Gen	% All Gen	% Coal Gen	% All Gen
Conrail only	26.9	5.2	-	-
NS only	0.0	0.0	6.7	1.3
CSX only	0.0	0.0	20.3	3.9
CSX/NS w/other	0.0	0.0	17.9	3.5
Conrail/CSX w/other	17.9	3.5	-	-
Other rail	8.2	1.6	8.2	1.6
Non-rail	47.0	9.1	47.0	9.1

These CSX-only and NS-only deliveries will represent 27% of NPCC coal generation.

Table 7 on the next page provides a complete percentage breakdown of NPCC 1995 capacity and generation data. These data show that measured on an all generation capacity transportation/source basis, the acquisition of Conrail results in a drop from 3.4% (for Conrail) to 2.7% (for CSX) in the share of exclusively served generation capacity. For all NPCC generation, after the

acquisition, CSX will exclusively only 3.9% of NPCC generation, down from Conrail's 5.2%. NS's exclusively served share of NPCC coal generation will rise from 0% to 6.7% after the acquisition. Accordingly, there is no change in the capacity covered by only a single-source rail supplier, but an increase in competition with two carriers rather than one serving the single-source rail destinations.

Table 7

NPCC SOURCES OF CAPACITY AND GENERATION

	1995 Capacity			1995 Generation		
	Capacity	% Share		Gen.	% Share	
	(GW)	All Plants	Only Coal Plants	(TWh)	All Plants	Only Coal Plants
Before The Acquisition						
Coal-Conrail Only	2.2	3.4%	27.5%	12.4	5.2%	26.9%
Coal-CSX Only	0.0	0.0%	0.0%	0.0	0.0%	0.0%
Coal-Conrail/CSX Only	0.0	0.0%	0.0%	0.0	0.0%	0.0%
Coal-Conrail with other	1.6	2.5%	20.3%	8.2	3.5%	17.9%
Coal-CSX with other	0.0	0.0%	0.0%	0.0	0.0%	0.0%
Coal-Other Rail including NS	0.6	0.9%	7.3%	3.8	1.6%	8.2%
Coal-Non-Rail	3.5	5.6%	44.9%	21.5	9.1%	47.0%
Nuclear	11.2	17.8%	—	62.0	26.2%	—
Hydro	8.7	13.9%	—	27.5	11.6%	—
Combined Cycle	7.7	12.1%	—	45.5	19.2%	—
Oil/Gas Steam	20.9	33.2%	—	46.7	19.7%	—
Turbines	5.3	8.4%	—	1.1	0.5%	—
Other	1.3	2.1%	—	8.2	3.4%	—
Total	63.1	100.0%	100.0%	236.9	100.0%	100.0%
After The Acquisition						
Coal-NS Only	0.4	0.7%	5.6%	3.1	1.3%	6.7%
Coal-CSX Only	1.7	2.7%	21.9%	9.3	3.9%	20.3%
Coal-NS/CSX Only	0.0	0.0%	0.0%	0.0	0.0%	0.0%
Coal-NS with other	0.3	0.5%	3.9%	1.4	0.6%	3.0%
Coal-CSX with other	1.3	2.1%	16.4%	6.8	2.9%	14.9%
Coal-Other Rail	0.6	0.9%	7.3%	3.8	1.6%	8.2%
Coal-Non-Rail	3.5	5.6%	44.9%	21.5	9.1%	47.0%
Nuclear	11.2	17.8%	—	62.0	26.2%	—
Hydro	8.7	13.9%	—	27.5	11.6%	—
Combined Cycle	7.7	12.1%	—	45.5	19.2%	—
Oil/Gas Steam	20.9	33.2%	—	46.7	19.7%	—
Turbines	5.3	8.4%	—	1.1	0.5%	—
Other	1.3	2.1%	—	8.2	3.4%	—
Total	63.1	100.0%	100.0%	236.9	100.0%	100.0%

In summary, the acquisition of Conrail by CSX and NS will improve competitive conditions for NPCC.

V. THE JOINT ACQUISITION OF CONRAIL WILL RESULT IN MORE EFFICIENT SINGLE-LINE RAIL HAULS FOR NORTHEAST AND MID-ATLANTIC UTILITIES THAT BUY CENTRAL APPALACHIAN LOW SULFUR COAL AND "B&O" COAL FROM NORTH OF CHARLESTON, WEST VIRGINIA

The 1970 Clean Air Act imposed requirements on SO_2 emissions from power plants that resulted in a shift of the source of coal for many Northeast and mid-Atlantic utilities. Previously, these power plants had burned higher sulfur coal from nearby Pennsylvania coal fields. As a result of the Clean Air Act of 1970, they had to buy low sulfur coal from the more distant Central Appalachian coal fields.

The CAA imposed two types of requirements. First, power plants built prior to 1971 but which were located in polluted (SO_2) areas were subject to Environmental Protection Agency and state imposed State Implementation Plan (SIP) SO_2 limits that could not be met except with Central Appalachia coal. One example is Central Hudson Gas and Electric's Danskammer plant. This Conrail-served plant shifted its coal source from a short single-line Conrail haul to a long two-line haul from Central Appalachia (Southern West Virginia/East Kentucky). Another example is Atlantic Electric's Deepwater plant in New Jersey, which shifted from Pennsylvania coal to low sulfur Appalachia coal delivered by a two-line rail haul.

Second, newly constructed plants built after 1971 that did not install a flue gas desulfurization unit or "SO_2 scrubber" had to burn coal with a SO_2 content after combustion of 1.2 lbs

SO_2/MMBtu or less. Delmarva Power's Indian River Unit #4 is such a plant. The only major eastern source of this low sulfur coal is in Central Appalachia or Alabama. Again, a two-line haul was required.

As a result of the joint acquisition of Conrail, plants facing these two CAA requirements will be able to buy coal transported by an efficient single-line movement. Here are the plants that will benefit:

New Single-Line Service on CSX		New Single-Line Service on NS		Both CSX and NS	
Utility	Plant	Utility	Plant	Utility	Plant
O&R Utilities CHG&E	Lovett Danskammer	DP&L DP&L DP&L	Indian Riv 1-3 Indian Riv 4 Edge Moor	Atlantic Elec Vineland	Deepwater Howard Down

Two Pepco plants (Morgantown and Chalk Point) located at or near the confluence of the Potomac River and the Chesapeake Bay are close to CSX's B&O-served coal fields in Northern West Virginia (see Exhibit 2). However, these Conrail-served plants take B&O coal by an inefficient and high cost two-line haul.

As a result of CSX's acquisition of Conrail's lines serving these two plants, PEPCO will be able to benefit from a more efficient single-line rail haul from the nearest (B&O) coal fields. In addition, the Morgantown plant, which presently receives heavy oil by barge, has the potential to receive coal by barge.

V. THE DIVISION OF CONRAIL ASSETS WILL RESULT IN INCREASED SOURCE COMPETITION WITH SINGLE LINE EFFICIENCIES TO ENABLE UTILITIES TO COMPLY WITH JANUARY 1, 2000 ACID RAIN REQUIREMENTS

The 1990 Clean Air Act Amendments imposed requirements for further reductions in SO_2 emissions in order to reduce the threat of acid rain and improve visibility. As of January 1, 1995, 110 plants, mostly in the Midwest, were affected by a 2.5 lbs SO_2/MMBtu limit. As of January 1, 2000 a new 1.2 lbs SO_2 limit will apply to each utility on a system-wide basis. That is, each utility will be allocated a number of emission allowances for its units based on the base period fuel consumption times 1.2 lbs SO_2/MMBtu.

A unique provision of the 1990 Amendments was the emission allowances trading program it established as a way of improving the efficiency (and reducing the cost) of compliance. Utilities must provide to EPA one emission allowance for each ton of SO_2 emitted. Utilities can "bank" in their own accounts or sell excess emission allowances. An emission allowance trading program has monetized the level of pollutants in a particular fuel. Currently the allowance price is around $100/ton of SO_2. This means that for a 2.5 lbs SO_2/MMBtu MGA coal burned in the year 2000 versus a 1.2 lbs SO_2/MMBtu Central Appalachia coal, the higher sulfur MGA coal will carry a SO_2 allowance penalty of $1.80/ton of coal at a $100/ton SO_2 allowance price.

Each utility will analyze its fuel supply sources by evaluating them on a delivered price SO_2 allowance adjusted basis. The joint acquisition of Conrail by NS and CSX will alter the outcome of these calculations in some cases. There are four basic choices for Conrail-served plants:

(1) Low-sulfur Central Appalachian coal originated by the NS or CSX; or Northern West Virginia B&O coal originated by the CSX,
(2) Medium sulfur MGA coal with allowances; or
(3) A blend of Powder River Basin very low sulfur coal and low cost medium sulfur content MGA coal, possibly with allowances if necessary.
(4) Installation of flue gas desulfurization ("FSD") scrubbers, which are expensive.

The utilization of Conrail plants by NS and CSX will benefit the plants' owners because they will be able to ship low sulfur Central Appalachian coal on CSX or NS, as the case may be, with the benefit of an efficient, single-line haul.

Already one utility, GPU, has suspended its plans to purchase MGA coal for its Titus and Portland stations in eastern Pennsylvania on a one-to-five year basis beginning January 1, 1998. Before making a commitment, GPU's coal buyer wants to obtain from NS: single-line haul bids of Central Appalachian and MGA coal. According to Coal Outlook's March 24, 1997 issue, GPU coal buyer Bruce Manecke stated that he was "real excited" about his new, post-Conrail alternatives.

VI. THE ACQUISITION OF CONRAIL BY CSX AND NS WILL IMPROVE ACCESS TO MGA COAL AND BENEFIT PRODUCERS BY OPENING UP NEW MARKETS

The most significant supply side development in eastern coal in the last decade has been the revitalization of MGA coal production. The causes are three-fold:

(1) The application of longwall mining techniques to the geology of southwest Pennsylvania (Greene and Washington Counties - eight mines); the bordering Northern West Virginia Panhandle (Monongalia, Marshall, Marion, and Harrison Counties - eight mines active in 1996); and across the Ohio River in the Ohio counties of Belmont and Monroe (two mines). This is the primary region east of Illinois that can benefit from this low cost mining technique that can result in labor productivities twice those in Central Appalachia (where continuous mining techniques are principally utilized).

(2) The a relatively high heat content of this coal, around 13,200 Btu/lb, which enhances its value on a delivered price basis compared to other eastern coals that have heat contents of 12,000 to 12,500 Btu/lb.

(3) The market matches that exist for two types of this low cost MGA coal. First, the Ohio and Northern West Virginia high sulfur (4.0 to 6.0 SO_2/MMBtu) coal meets the requirements of FGD equipped plants, and the southwest Pennsylvania medium sulfur (2.5 to 3.0 lbs SO_2/MMBtu) product competes without SO_2 allowances in the pre January 1, 2000 market, and with allowances in the Phase II acid rain market at non-FGD equipped units.

After Board approval, these MGA mines that are rail served will have access to both CSX and NS. This means they will have access to the existing Conrail-served destinations, new CSX and NS destinations, and port access to Norfolk/Newport News and Baltimore via both CSX and NS. Today only Conrail can get medium and low sulfur MGA coal to Baltimore, and it is not delivered to Newport News or Norfolk. This coal is a leading export coal performer at Baltimore for both steam and metallurgical (blend) applications.

CSX has access on a single-line haul basis to one Pittsburgh 8 coal seam mine, located adjacent to MGA mines. CSX ships this high sulfur coal from the Robinson Run mine in West Virginia to FGD equipped units at Jacksonville and Palatka, Florida. The delivered cost of these shipments in 1996 to Jacksonville Electric Authority's St. John's Power Park station and in 1995 and 1996 to the Seminole Electric station were among the least expensive coals received at these units. Access to abundant supplies of this coal should enable CSX to add a supply source alternative at most of its FGD equipped destination plants.

Another area that could benefit from NS/CSX MGA origin competition is the state of Pennsylvania, particularly at Keystone and Homer City 1&2 where the division of Conrail assets will enable both CSX and NS to compete at origin and destination with MGA coal. Currently both Conrail and CSX have access to the Keystone power plant. At present, the Homer City plant does not have a rail coal receiving facility. However, CSX maintains rail access to the plant. When coal receiving capability is installed, both CSX and NS will have the opportunity to compete at Homer City for deliveries of MGA and Central Appalachian compliance coal (1.2 lbs SO_2/MMBtu) required at this unit.

CSX also will have the ability to deliver MGA coal to Consumer Power's Campbell, Karn, Weadock and Whiting plants located in Michigan. This will add source competition for Consumers Power. To meet Consumers Power's sulfur limits, MGA coal may need to be blended with PRB coal. Consumers Power already blends PRB with Central Appalachian coal.

Competition between CSX and NS for MGA coal shipments enhances the possibility of PRB/MGA blends as an option to meet Phase II acid rain limits. This blend has been used by Detroit Edison at its Monroe plant in eastern Michigan. Illustrative economics for this blend are shown in the table below compared with the "straight" alternatives of PRB, Central Appalachia, and MGA coal. For utilities that need SO_2 reductions in 2000 as well as a higher Btu/lb coal than PRB alone, better access to the MGA coals opens up a new alternative.

A PRB/MGA BLEND VERSUS CENTRAL APPALACHIA COAL AND PRB COAL ALONE
(Detroit Edison/Monroe)

	CAPP	PRB	MGA	60% PRB 40% MGA
Btu/lb	12,500	8,800	13,200	10,560
SO_2 (#/MMBtu)	1.5	0.5	2.5	1.5
FOB Mine ($/Ton)	24.50	4.00	24.00	12.00
Transportation ($/Ton)	10.50	14.00	8.50	11.80
Delivered ($/Ton)	35.00	18.00	32.50	23.80
¢/MMBtu Delivered	140.0	102.3	123.1	112.7

CSX and NS access to MGA coal will increase competition for the movement of this coal to Lake Erie and coal customers accessible via the lakes. As a result of the acquisition of Conrail, B&O coal will gain better access to the Lakes. See Verified Statement of Raymond L. Sharp. CSX and NS will obtain better access to the Ashtabula dock, which Conrail now serves, and to which CSX has access with the added expense of a terminal charge.

Two railroads competing to the lakes with MGA coal could benefit the following utilities.

Utility	Plant	In Competition With
Centerior	Ashtabula	CSX rail and other lake sources
Centerior	Lakeshore	CSX rail and other lake sources
Niagara Mohawk	Dunkirk	CSX rail and other lake sources
Niagara Mohawk	Huntley	CSX rail and other lake sources
WEPCO	Presque Isle 1-6	Other lake sources
WEPCO	Valley	Other lake sources
WEPCO	Port Washington	Other lake sources
Ontario Hydro	Lambton	Other lake sources

Utility	Plant	In Competition With
Ontario Hydro	Nanticoke	Other lake sources
New Brunswick Power	Belledune	Atlantic vessel competition
Consumers Power	Cobb	Other lake sources

The enhancement of this source option will benefit not only utilities with lake access but also the producers of MGA coal that can load onto CSX and NS.

VII. CONCLUSION

The operation of Conrail lines by CSX and NS will reduce the share of coal sole-source rail delivery from 21 power plants presently controlled by Conrail to 18 power plants split between NS(11) and CSX(7). CSX and NS exclusive deliveries after the transaction will compete NS against CSX on their respective PJM, ECAR, and NPCC grids. In no power pool will either CSX or NS exclusive delivery tonnage represent more than 12.1% of all generation (PJM). CSX exclusive deliveries will represent 4.2% of all ECAR generation. CSX's exclusive delivery share will represent 3.9% of all generation in NPCC.

In two of the power pools, as a result of the CSX/NS acquisition of Conrail, competition for rail deliveries of coal to electric utilities will become more intense. In ECAR the competitive conditions will not change significantly.

Another result of the division of Conrail's assets will be the availability of efficient single line hauls to utilities that previously moved Central Appalachia coal northeast by inefficient two line hauls. Also, as coal-burning electric utilities comply with the January 1, 2000 sulfur dioxide

reduction requirements of the CAA, the use of Conrail's assets by CSX and NS will give additional utilities access to lower cost methods of compliance.

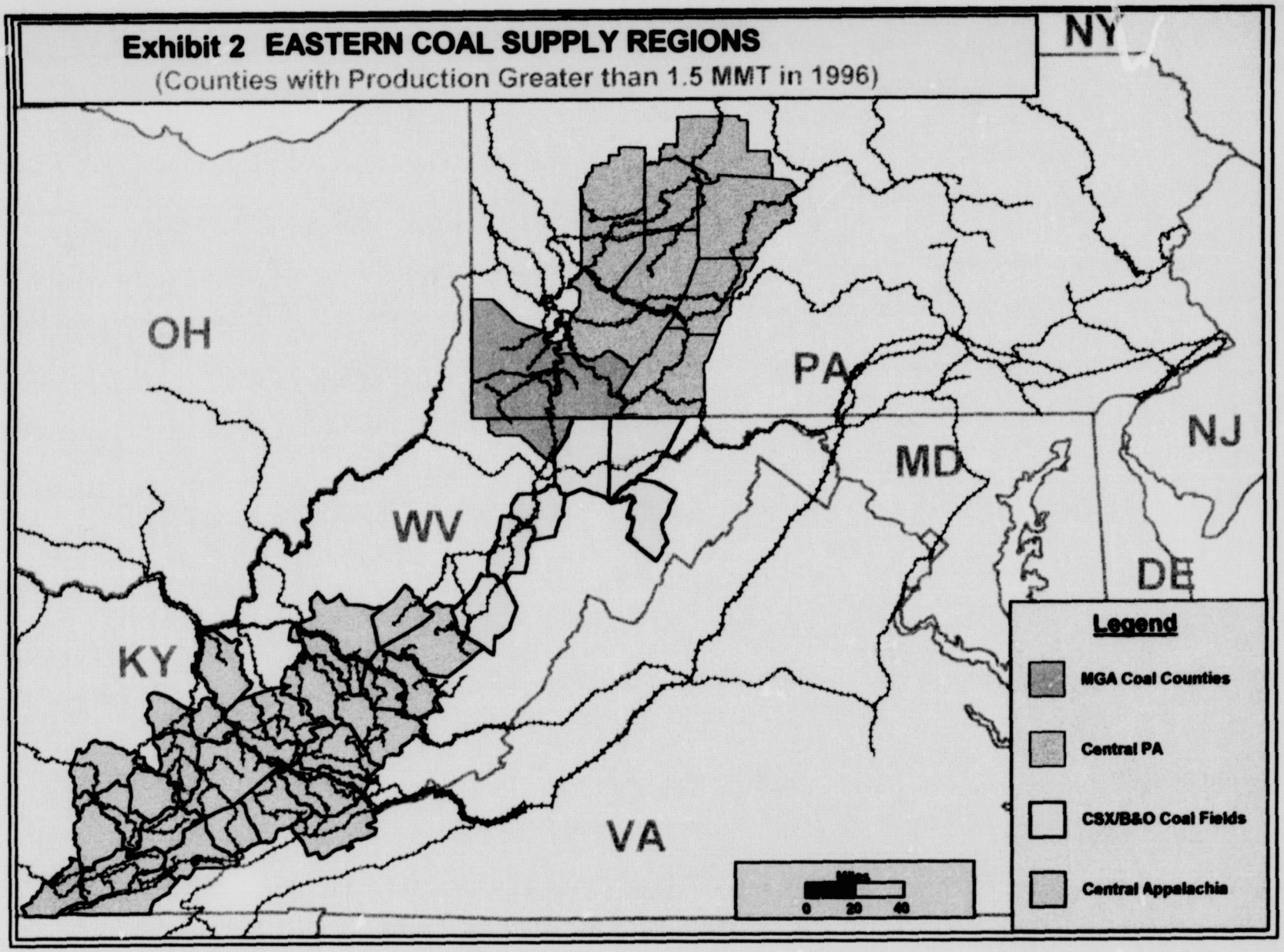
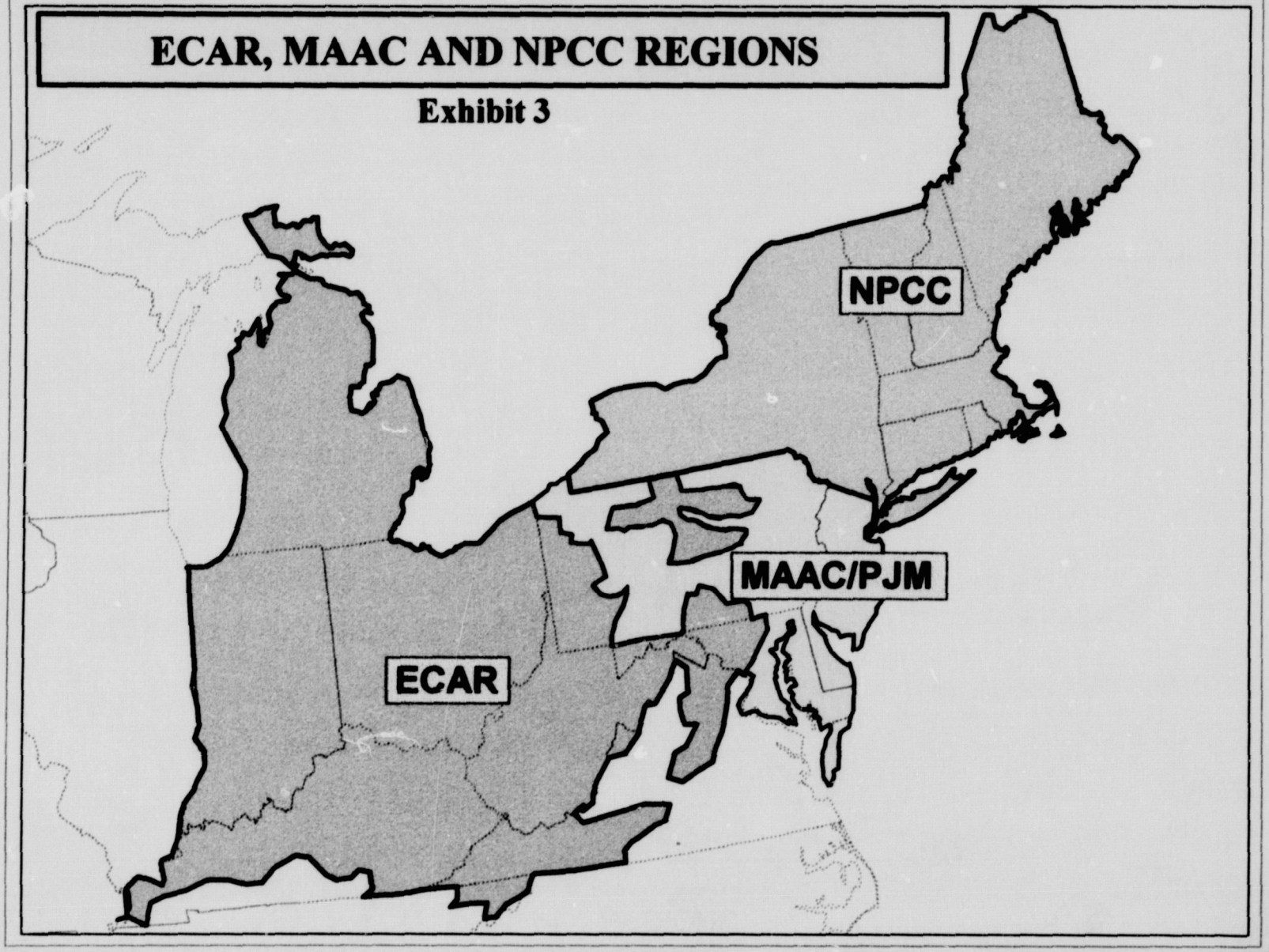


Exhibit 2 EASTERN COAL SUPPLY REGIONS
(Counties with Production Greater than 1.5 MMT in 1996)
NY
OH
PA
NJ
MD
WV
DE
KY
VA
Legend
MGA Coal Counties
Central PA
CSX/B&O Coal Fields
Central Appalachia
Miles
0 20 40

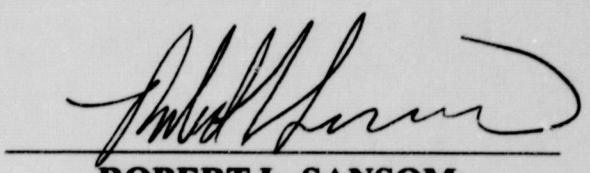
ECAR, MAAC AND NPCC REGIONS

Exhibit 3



VERIFICATION

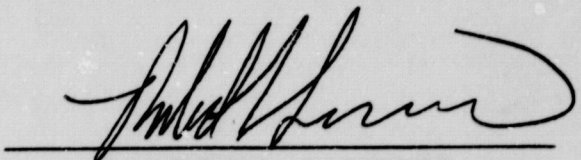
I, Robert L. Sansom, declare under penalty of perjury that the foregoing statement is true and correct. Further, I certify that I am qualified and authorized to file this statement. Executed on June 10, 1997.



ROBERT L. SANSOM

VERIFICATION

I, Robert L. Sansom, declare under penalty of perjury that the foregoing statement is true and correct. Further, I certify that I am qualified and authorized to file this statement. Executed on June 10, 1997.



ROBERT L. SANSOM

Exhibit 1

EXPERIENCE OF

DR. ROBERT L. SANSOM

Education

Robert Sansom graduated (B.S.) from U.S. Air Force Academy in 1964.
In 1965, Dr. Sansom received a M.S. degree in economics from Georgetown University.
In 1968/69, he received a B. Phil and D. Phil in economics from Oxford University.

Background

Dr. Sansom studied economic development as a Fulbright Scholar in Argentina and as a Rhodes Scholar at Oxford University where he earned two degrees, a B. Phil and a D. Phil. from Oxford in Economics focused on the economics of developing countries.

From 1971 to 1974 Dr. Sansom was at the U.S. EPA, first as Deputy Assistant Administrator for Planning and Evaluation and later as Assistant Administrator of Air and Water Programs.

Experience

For 23 years, Sansom has led an energy consulting group[7] that advised coal and gas companies, electric utilities, independent power producers, and the U.S. government on coal and gas market conditions and transportation, coal utilization, environmental impacts, coal and gas procurement, power markets, and power project economics and feasibility.

Coal

EVA has detailed knowledge and data bases on coal worldwide. Dr. Sansom has testified before State Public Utility Commissions, Arbitrations, and Courts, on coal production, markets, technologies, contracts, transportation and environmental effects. These engagements include an international Arbitration involving Japanese coal buyers, and court testimony on international coal markets.

Natural Gas Analysis

Dr. Sansom has been engaged in analysis of natural gas markets, natural gas production, and gas using technologies such as the combined cycle/gas turbine.

Independent Power Projects and Utility Deregulation

The evolution of power markets, initiated in 1978 by PURPA and evolving through the development of Independent Power Projects in the 1990's to FERC's Order 888 in 1996, has given rise to various EVA projects. Sansom has examined for banks, project developers, and power purchasers, such issues as project technological and environmental risks, project economics and financing, power purchase agreements, and fuel supplies and pricing. In 1996 Sansom submitted testimony at FERC on the so-

[7]From 1974-1980, President, Energy and Environmental Analysis, Inc. From 1981 to the present, President, Energy Ventures Analysis, Inc.

called Mega-NOPR which led to FERC's deregulation of wholesale power transactions and transmission.

Fuel Suitability and the Environmental Effects of Fuel Use

Sansom's original involvement in the energy industry was in response to the adverse environmental effects of fuel use. He has been active in studies on sulfur dioxide, nitrous oxides, particulates, air toxics, and CO_2 emissions from fuel use. EVA has estimated the cost of specific environmental control technologies at plant sites and the cost of national environmental programs for clients such as the U.S. Environmental Protection Agency, the Electric Power Research Institute, and the Department of Energy. It has advised electric utilities on how to comply with acid rain and other environmental requirements. Dr. Sansom has testified on fuel suitability issues. Fuel suitability involves how a particular fuel burns in a particular combustor and how emissions are treated before discharge to the atmosphere.

Expert Testimony

Sansom's expert testimony (1993-1996) is in an attachment hereto.

Arbitration

Sansom has served as an Arbitrator in three coal contract disputes between utilities and coal suppliers.

Surface Transportation Board (STB) Testimony

Sansom submitted rebuttal testimony in 1995 on market dominance in West Texas Utilities v. Burlington Northern Railroad Company. In April 1996 Sansom filed STB testimony on behalf of the railroads in Union Pacific Railroad's acquisition of the Southern Pacific Railroad. In October 1996 Sansom submitted testimony on behalf of the Association of American Railroads in the bottleneck Dockets (41242, 41295, and 41626). Also in October 1996 Sansom testimony was presented in Conrail's reply to Pennsylvania Power & Light Company in the just mentioned Dockets.

ROBERT L. SANSOM
1993-1996
COURT AND ARBITRATION
EXPERT TESTIMONY

	Client	Other Party	Year	Court or Regulatory Body
A	Commonwealth Edison	Peabody Coal	1993	Washington, D.C.
C	First Boston/Touche Ross Jacobs Group	KSC Recovery	1993	CO Federal Court
A	Central Power & Light	Colowyo	1994	Denver, CO
A	Lauhoff Grain	Babcock & Wilcox	1994	Danville, IL
C	Northwestern Res/HL&P	TCA Bldg Inc.	1994	TX Federal Court
C	Evergreen Coal	UMWA Employee Benefits Plans	1994	U.S. District Court
A	Virginia Power	Birchwood/SEI	1994	Virginia
C	Louisville G&E	Various Plaintiffs	1995	State Court Kentucky
C	Island Creek Corp et al Defendants	Holland et al Plaintiffs	1995	U.S. District Court District of Columbia
A	Westmoreland Res, Inc.	Wisconsin P&L/Dairyland	1996	Chicago, IL

A Arbitration
C Court

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

VERIFIED STATEMENT OF RAYMOND L. SHARP

VERIFIED STATEMENT OF RAYMOND L. SHARP

My name is Raymond L. Sharp. I am Vice President, Coal Sales and Marketing for CSX Transportation, Inc. ("CSXT"). I hold a Bachelor's degree from the University of Louisville and have undertaken graduate studies at the University of North Florida. My entire 32 year business career has been in the railroad industry. I started with the Louisville & Nashville Railroad in 1966. During my career, I have held various sales and marketing positions, as well as operating positions, at CSXT. Immediately prior to my present position, I was General Manager of CSXT's Cumberland Business Unit where I was responsible for all train operations, engineering and mechanical functions, and financial services and service design for all movements of coal over the former B&O and western Maryland coal field properties.

In my present position, I am responsible for all sales and marketing activities associated with CSXT's $1.6 billion coal, coke, and iron ore business. As Vice President, Coal Sales and Marketing, I am responsible for, and oversee the negotiation of, pricing and service contracts with all of our major coal customers. In addition, I am responsible for developing CSXT's coal business plan and implementing it through coordination with various other department heads at CSXT. I am responsible for all coal business

development matters, including the improvement of existing facilities to create new marketing opportunities.

The purpose of my verified statement is to provide a market based perspective on how the joint acquisition of Conrail will impact CSXT's transportation of coal (both steam coal and metallurgical coal), coke, and iron ore. My statement will describe the Acquisition's effect on coal transportation marketing, its effect on the competition between coal sources, and its effect on the competition between rail carriers. In addition, I will address the resulting service efficiencies and how those efficiencies will affect shippers and coal source and carrier competition after the Acquisition.

I. INTRODUCTION TO THE CSXT COAL NETWORK

Today, CSXT moves approximately 180 million tons of coal, coke, and iron ore annually, with revenues exceeding $1.6 billion -- approximately one-third of CSXT's annual revenues. In terms of train volume, that amounts to over 300 loaded coal trains per day, 1.8 million carloads per year.

Coal is the single largest commodity CSXT hauls. One of every three cars CSXT carries is loaded with coal produced from coal mines in Appalachia, the Midwest, and the South. Those coal mines include

properties served by the former L&N Railroad (eastern and western Kentucky coal fields, southern Indiana coal fields, and Alabama coal fields); the former B&O Railroad coal fields and western Maryland coal fields; the former Clinchfield Railroad coal fields; and the former C&O Railroad coal fields (including the New River District, the Kanawha District, and the Big Sandy District coal fields). See Exhibit 1 to this statement. Each of these properties is described more fully in the Operating Plan (Exhibit 13 -- CSX, Section 3.2.14).

The proposed Acquisition gives CSXT direct shared access with NS to all current and future facilities located on or accessed from the former Monongahela Railroad lines ("MGA coal").

CSXT transports coal to industrial facilities and utilities in the Southeast and Midwest, and to eastern and gulf ports for export. Direct utility purchases of steam coal represent the lion's share -- 51% -- of the CSXT coal transportation revenue. Transportation of coal for export represents 16% of CSXT coal transportation revenue, while shipments of metallurgical coal, coke, and iron ore to steel customers constitute 12% of CSXT coal transportation revenue. Shippers moving coal to ports on the Great Lakes for transloading into lake vessels constitute 4%

of the CSXT coal transportation revenue while movements to river-served coal transloading facilities represent 5%. Transportation of coal to industrial facilities and cogeneration facilities makes up 7% and 5%, respectively, of the CSXT coal transportation revenue. See Exhibit 2 to this statement.

CSXT moves coal to each of the 20 states in which it operates. CSXT moves coal from throughout the coal fields in direct rail service to electric utilities, industrial accounts, and cogeneration (electric) plants. CSXT moves coal to transloading facilities on the extensive river system for movement beyond by barge. CSXT also moves coal to the Great Lakes for transloading to lake vessels for movement to both domestic and Canadian destinations. CSXT also moves coal to East coast and Gulf ports for export, as well as for domestic coastwise movements to Connecticut, Massachusetts, Maryland, and New Jersey.

Because coal is such an important commodity to CSXT, CSXT has made significant investments in its overall coal network. Over the past five years, CSXT has invested more than $1.5 billion to:

- purchase and lease locomotives;
- open and improve state-of-the art, locomotive repair and servicing centers near the coal

producing regions in Corbin, KY; Cumberland, MD; Clifton Forge, VA; and Huntington, WV; and

- upgrade the coal fleet by purchasing and rebuilding thousands of open top hoppers and rotary gondola cars.

II. COAL TRAFFIC DIVERSION STUDY

To determine projected coal traffic changes associated with the use of Conrail lines, CSXT performed under my direction a traffic diversion study, which is summarized in the Appendix to this statement.

III. BENEFITS OF THE PROPOSED ACQUISITION

CSXT's allocation of a portion of Conrail's lines will provide significant benefits for the coal producers, consumers, and ports that CSXT will serve on its expanded, post-acquisition system. It will open opportunities for coal customers and shippers throughout the eastern United States.

First, the number of direct, single-line movements of coal will increase on the expanded CSXT system. Single-line service is more efficient, resulting in the elimination of delays at interchanges, and more consistent and timely service for coal customers. Single-line service will yield improved communications, thereby increasing CSXT's responsiveness to customer needs, including a single point of contact for train and car location inquiries. Train operations will

become more predictable, and therefore more reliable, benefitting both customers and train crews.

Second, the proposed allocation of Conrail assets will result in increased competition for coal transportation in the eastern U.S., including competition to transport coal from a broader range of sources. Because CSXT will be able to extend single-line service to a greater number of coal consumers, those consumers will gain improved access to a larger number of coal source options than they currently enjoy. Third, coal producers also will benefit by gaining access to new customers -- Conrail-served Midwest and Northeast destinations. Fourth, rail-to-rail competition will be enhanced. CSXT and NS will compete to move coal from mines that each serves to numerous customers throughout the East.

Fifth, shippers will benefit from new capital improvements in the CSXT coal network. As CSXT rail transportation becomes more efficient, it will attract more rail traffic, diverting existing traffic from trucks and barges. As rail traffic increases, CSXT will have an incentive to invest in new capital improvements to handle the increased traffic. Finally, due to the division of Conrail assets, CSXT will realize additional coal, coke, and iron ore revenues of over $228 million. Beyond that, because of extended

haul efficiencies and competitive forces, CSXT expects to increase this traffic by $52.5 million by the year 2000. Accordingly, by 2000, total coal, coke, and iron ore revenues resulting from the Acquisition will exceed $281 million. See the Appendix to this statement.

A. The Acquisition Will Result in New Service Efficiencies That Will Benefit Coal Producers, Consumers, and Ports

Carriers of coal -- including rail, truck, and barge transportation providers -- compete for business based on a number of factors, including price, service, equipment type, equipment availability, and reliability. After price, service is the second most significant factor in the customer's choice of transportation provider. Indeed, it is not uncommon for service considerations to tip the balance in favor of particular provider even if that provider is offering a slightly higher price. Accordingly, competition is affected by a carrier's ability to compete with respect to service: as service efficiencies improve, competition is intensified.

With an expanded service network, CSXT will offer substantially enhanced service to its coal customers through single-line service, shorter and more efficient

routes, and better utilization of railroad equipment.

1. More single-line service

Today, there are a number of routes over which coal must move -- (or over which coal could move if such movement were economically feasible) -- through joint-line CSX-Conrail service that after the acquisition will move in a single-line movement for current CSXT origin coal. As discussed more fully in Section 3.2.14 of the CSX Operating Plan (Exhibit 13), some of the new movements include: single-line service to Pepco's Chalk Point and Morgantown, MD plants; single-line movements to Ashtabula and the lake region; and single-line service to utility plants in the Buffalo and Rochester areas. Single-line service will be more efficient because it will eliminate the delays inherent in interchanges. Interchanging railroads must coordinate locomotives, cars, crew availability, inspections, and track time. Eliminating interchange handling will significantly reduce transit times for coal shipments. Reducing or eliminating interchange handling also will reduce the likelihood of frozen coal during the winter. Single-line service also will improve operational communications over the expanded CSXT coal network, thereby increasing CSXT's responsiveness to customer needs. With the elimination

of joint-line moves, accountability to customers also will improve.

2. Shorter and more efficient routes

The expanded CSXT system will be able to provide shorter and more efficient routes between coal origins and destinations. By rerouting existing coal business to shorter or more efficient routes, CSXT will be able to provide significant mileage and transit time savings. For example, after the Acquisition, CSX will be able to offer a more direct route from the MGA coal fields to the port of Baltimore.

B. Coal Consumers Will Gain Single-Line or Improved Access to More Coal Choices

With the allocation of Conrail lines, CSXT will be able to offer single-line service to 17 former Conrail-served utility power plants, including six plants that will be jointly served by CSX and NS. These new customers will represent approximately 16 million tons of potential coal business for CSX. In addition, the allocation of Conrail lines will enable CSXT to offer an economically viable service to Ashtabula Harbor and provide a competing single-line option between the MGA coal fields and the east coast export coal piers.

New route combinations in the expanded CSXT system will enhance coal source options by giving coal consumers improved, more economical access to a greater

number of coal producers. Thus, consumers will have a wider range of sources from which to purchase coal of the quality needed (that is, Btu and sulfur content, among others) and at competitive prices. Because of the new sources and varying grades of coal that will become available on the expanded CSXT system, coal-fired utility plants served by CSXT will have a far greater range of choices in source of coal supply than they do today. With increased source options, utilities can better match coals to boiler needs as they analyze their fuel switching options. For example, access to the former MGA coal fields will improve blending opportunities at CSXT-served utilities that desire mid-sulfur coal and provide additional coal choices for utilities that scrub high-sulfur coal.

Such choices will become more important during Phase II of the Clean Air Act, which becomes effective on January 1, 2000. The sooner these new coal choices are made available to utilities, the better they can implement their compliance strategies. See Verified Statement of Robert L. Sansom in this volume.

All utilities will have to evaluate their individual generation units' transportation costs, emission allowance prices, and other factors to determine how to best comply with Phase II. Those choices will be improved by more efficient rail service

from the low sulfur coal fields now served by CSXT. This means that utilities that elect to comply with Phase II using low sulfur compliance coal can do so in the most efficient way. Where a large bank of accumulated emission allowances exists, a utility may postpone most decisions to install scrubbers in its coal-fired generating facility. To comply with Phase II, some utilities may bundle SO_2 credits with lower sulfur coals -- a strategy that may very well avoid massive capital investment and that will present opportunities for additional growth for low sulfur coal originating in regions served by CSXT. For example, after the Acquisition, Buffalo area utilities may benefit from CSXT's ability to provide single-line deliveries of "super compliant" coal from the former C&O coal fields in West Virginia.

Because of Clean Air Act emission requirements, a utility's ability to purchase from among a number of potential coal suppliers becomes increasingly important. With greater source options, a utility can choose among various coal sources and blending strategies using different types of coal and bundling that mix with SO_2 emission allowances. The proposed allocation will provide utilities a larger menu of sources for different types of coal sources.

Accordingly, some utilities will have an increased opportunity to defer scrubber capital investments.

New access to a broader range of different low cost coal sources provides additional benefits for utilities in the increasingly competitive electric energy market. Today, many utilities belong to power pools that dispatch power on an economic basis. In general, the power generated using the lowest cost fuel will be dispatched first. Having increased access to low cost coal will provide greater opportunities for dispatch of coal-fired generation. Further, Order No. 888 issued last year by the Federal Energy Regulatory Commission put increased pressure on utilities to generate and purchase low cost power. The increased access to coal sources gained through the Acquisition will assist utilities in competing more effectively.

Increased economic access to coal sources will also benefit coal exporters and ports. CSXT access to the MGA coal fields will permit shorter, more direct routes to all three coal piers at Baltimore. Increased single-line efficiencies will improve the accessibility of MGA coal to the river system via CSXT-served docks near Pittsburgh.

Coal producers also will benefit from utilities' increased access to different coal sources. Producers can establish "high-low" coal supply contracts with

utilities. With these contracts, coal from a number of different sources can be purchased from a single supplier. The coal is not actually physically mixed before burning, but the utility can satisfy the SO_2 emission limits. Using this process, coal producers can increase sales of all types of coal -- including high-and low-sulfur and high- and low-Btu content coals.

C. Utilities in Specific Areas Will Benefit from the Acquisition

As discussed above, CSXT coal consumers will enjoy significant benefits from the Acquisition. Most notably, consumers will gain access to new coal sources through new coal movements offered by the expanded CSXT system. The CSX Operating Plan (Exhibit 13--CSX) discusses those movements in detail. This portion of my statement discusses those movements from a marketing perspective.

Access to Ashtabula, OH and the Lake Region. Today, Conrail delivers coal in single-line service directly to Centerior Energy Corporation's Eastlake plant and the Ashtabula plant located near Cleveland. These coal movements include both Ohio and MGA coal and coal from southwest Pennsylvania. After Board approval, CSXT will offer single-line service from multiple coal sources, including MGA coal, to Centerior. More importantly, Centerior will benefit

from the improved access to CSXT's vast low sulfur coal that is now available to it only via joint-line service.

Electric Utility Plants in the Buffalo Region. Today, Conrail directly serves four electric utility plants in the Buffalo region: the Niagara Mohawk Power Company's ("NIMO's") Dunkirk plant in Dunkirk, NY and NIMO's Huntley plant and New York State Electric & Gas Company's Kintigh plant located in West Somerset, NY; Rochester Gas and Electric Company's plant in Rochester, NY. After the Acquisition, CSXT expects to move coal from the MGA coal fields to all four of these plants in a single-line haul. More importantly, these utilities will have more and better access to low sulfur coal supply origins located throughout CSXT's extensive coal network.

Other Northeastern Power Plants. Today, Conrail delivers coal in single-line service directly to the Central Hudson Gas and Electric Company's Danskammer plant in Roseton, NY and to the Orange and Rockland Utilities' Lovett plant in Tompkins Cove, NY. NS also moves coal to these plants via Buffalo where it is interchanged with Conrail.

After the Acquisition, CSXT will directly serve the Orange and Rockland and Central Hudson plants, which then will have single-line service options from coal

mines located on CSXT. This will give these two utilities more sourcing options for low sulfur coal than are currently available.

In addition, Conrail originates MGA coal and interchanges it to the Boston and Maine, a regional carrier, for delivery to Holyoke Power Company's Mt. Tom plant in Holyoke, MA and Public Service Company of New Hampshire's Merrimac plant in Merrimac, NH. Following the Acquisition, CSXT and NS will compete directly for movement of MGA coal to these utility plants.

Movement to Pepco Plants. Conrail currently uses 61 miles of the heavily congested Northeast Corridor ("NEC") from Perryville to Bowie, MD to serve Potomac Electric Power Company's ("Pepco's") Chalk Point power plant located at Herbert, MD and Morgantown power plant located at Woodzell, MD. After the Acquisition, CSXT will remove as much of Pepco's coal traffic as possible from the NEC, thereby shortening the route to Pepco's plants. Today, this coal moves southbound from Perryville to Bowie on the NEC for a distance of 61 miles. After the Acquisition, the coal will move north on the NEC for only 8 miles from Landover to Bowie, thereby minimizing use of the NEC, and improving coal transportation service to Pepco's plants.

Deliveries to Delmarva Power & Light Company and Pennsylvania Power & Light Company Plants. Following the Acquisition, CSXT plans to offer a movement with NS of B&O origin coal to DP&L and PP&L plants. That coal will move from Cowen or Grafton over CSX lines to Lurgan, PA/Hagerstown, MD for interchange with NS for delivery to the plants. While single-line service efficiencies generally are superior to joint-line service, this appears to be a route that is more efficient for obtaining low sulfur coal. CSXT service will give those plants access to B&O origin coal -- the closest low sulfur coal available to the plants. The proposed CSXT/NS movement is over 130 miles shorter than NS's single-line movement of NS-origin low sulfur coal.

Deliveries to New Jersey and the Philadelphia Area. Currently, Conrail delivers coal directly to utility plants in southern New Jersey and Philadelphia, including B&O coal that is interchanged at Lurgan, PA. After the Acquisition, these utilities will be within the Philadelphia/Southern New Jersey shared asset area. B&O Coal will reach these destinations via a CSX direct, single-line movement. This coal will move via Cumberland, Baltimore, and Philadelphia then over the shared use tracks to the individual plants.

More Direct Service to Coal Export and Blending Piers. During the last two years, the export market for eastern coals has experienced a significant revival. By serving the former MGA coal fields directly, CSXT will be able to provide more direct routes to the Baltimore coal piers -- the Consolidation Coal Sales Company (Canton pier); Curtis Bay Company (Bayside Terminal); and CSX (Curtis Bay Pier). Moreover, the availability of single-line service to Newport News will significantly enhance opportunities for blending MGA and former C&O coal. As a result, the markets for these coals will be expanded.

Deliveries to the Southeast Utility Market. The expanded CSXT system will create single-line efficiencies for moving MGA coal to utilities in the Southeast. Some mid-sulfur MGA coal originating on Conrail lines historically has moved through Cumberland, MD on a CSX route via Rivesville and Grafton, and to the southeast, via Richmond, with termination in Florida. This joint-line service necessitates coordination of resources at interchanges -- including locomotives, cars, crews, inspections, and storage tracks -- resulting in service inefficiencies and delays. After Board approval, the interchange will be eliminated and dwell time can be reduced in most cases by as much as 24 hours.

Intermediate delays will be minimized and extra inspections avoided. Because no equipment uncoupling will be necessary, the cycling of coal cars and locomotives will be improved. CSXT expects the benefits of this single-line service to result in increased movements of MGA coal to the southeast. Accordingly, this will permit MGA coal producers to expand their shipments into that area.

Deliveries to Michigan. Today, Detroit Edison's Trenton Channel and River Rouge power plants can receive low sulfur coal from CSXT coal fields only via joint-line service, which involves either Conrail or Grand Trunk Railroad delivery. After Board approval, Detroit Edison will benefit from the availability of CSXT single-line service from all coal sources served by CSXT, including the MGA. Further, the inherent difficulties of joint-line service will be eliminated. Detroit Edison's Monroe plant will benefit from CSXT's direct access to MGA coal fields, thus allowing a highly coordinated CSXT/GTW service for MGA coal that is directly competitive with NS service for MGA coal.

Access to River Terminals. In addition, MGA coal producers selling to utilities and industrial plants in the Northeast will benefit from new routings that provide a shorter and more efficient access to river terminals. A new single-line service routing to

Glassport, PA on the Monongahela River (which flows into the Ohio River) will be 53 miles shorter than the existing Conrail route to Conway, PA. Moreover, by receiving single-line movement of MGA coal at Glassport instead of at Conrail's river facility near Brownsville, PA, CSXT coal customers can avoid the lock and dam on the Monongahela River, thereby receiving more efficient and more reliable service.

Movement of Metallurgical Coal. The allocation of Conrail lines also offers opportunities for continued, as well as increased, competition for shipments of metallurgical coal.

Today both Conrail and CSXT serve AK Steel's coke batteries at Middleton, OH; Bethlehem Steel's coke batteries at Bethlehem, PA and Burns Harbor, IN; and LTV Steel's coke batteries at Warren, OH. CSXT provides single-line service from CSXT-origin mines while Conrail acts as the delivering carrier for much of the NS coal destined to these plants. After the Acquisition, these customers will have opportunities to receive coal from mines served by either CSXT or NS and will have the benefit of competitive head-to-head single-line movements to their coke batteries. Conversely, CSXT will gain direct access to the

Bethlehem Steel, Lackawanna, NY coke batteries. This will provide single-line service by both NS and CSXT in the future.

Today both NS and Conrail transport metallurgical coal to the Erie coke batteries located in Frie, NY and Conrail serves as the delivering carrier to Tonawanda coke batteries located in Buffalo, NY. Following the allocation, CSXT will gain single-line access to these facilities, moving coal from the Kanawha and New River districts. NS also will have direct access to the Erie Coke facility via a parallel route from Ashtabula, OH. Accordingly, the two carriers will continue to compete head-to-head to serve that facility.

Movement of Coke. Following the allocation, competition between CSXT and NS for the movement of coke also will intensify. As many coke producers ship their excess production to steel mills with a shortage of coke, single-line service will intensify competition. Bethlehem Steel at Bethlehem, PA and Lackawanna, NY and USX at Clairton, PA will have better and broader single-line access to coke sources. Warren Consolidated, Inc. at Warren, OH and AK Steel at Middletown, OH, as net receivers of coke, will benefit from the increased competition resulting from single-line access.

D. Coal Producers Will Gain Single-Line or Improved Access to New Customers

Service efficiencies resulting from the Acquisition will create new opportunities for coal producers served by CSXT. These new opportunities will represent an increase in overall geographic competition throughout the eastern United States. The expanded CSXT system will provide significant service efficiencies to a greater number of end-use destinations.

For the first time, CSXT will offer single-line service between low-sulfur, high-Btu, B&O coal fields (in north central West Virginia) and destinations in the Northeast; and between medium-sulfur, high-Btu coal from the MGA coal fields (in southwestern Pennsylvania/northeastern West Virginia) and destinations in the Southeast. The expanded CSXT system will be able to provide shorter routes and faster transit times between the B&O and MGA coal fields and destinations in the mid-Atlantic region and the eastern Midwest/Great Lakes region.

E. The Acquisition Provides Significant Opportunities for Rail-to-Rail Competition

Presently, CSXT and NS serve coal sources of similar quality and compete vigorously for shipments to customers in the Southeast and Midwest, often at the same destinations. Steam and metallurgical coal shipped by CSXT and NS come generally from the same

areas, that is, predominantly low-sulfur, high-Btu coal from central Appalachia (including eastern Kentucky, West Virginia, and western Virginia). Moreover, CSXT and NS steam coal customers are located in the same regions, namely the Southeast and Midwest. Accordingly, CSXT and NS compete throughout the Southeast and Midwest as well as for exports, both on a direct and on a source-competition basis.

CSXT and NS will continue to compete vigorously in the Midwest and the Southeast for steam and metallurgical coal movements. The two carriers also will continue to compete head-to-head in the Midwest and the Northeast.

Moreover, CSXT and NS will compete for steam coal export moves. For example, CSXT serves four export ports, which are located in Baltimore (three piers); Charleston, SC; Mobile, AL; and Hampton Roads, VA. After the acquisition, CSXT and NS will compete head-to head at all of these ports.

F. Shippers Will Benefit from New Capital Investments

In the rail industry, it is imperative to become more productive through continuous improvements requiring capital and management investments. To obtain the most from its locomotive fleet, CSXT is spending significant capital on new locomotives,

rapidly replacing older models and working to integrate the latest technology.

During the period from 1995 through the end of 1997, CSXT will have spent in excess of $462 million on over 270 new locomotives. These new locomotives, which have more than one-third more pulling power than the older models, are being utilized throughout CSXT's coal network. In September 1996, CSXT took delivery of its first 6000 horsepower alternating current ("AC") locomotives. The AC 6000 is the most powerful single-engine locomotive in the world and CSXT is the first railroad in North America to place this engine into service. The locomotive was first put to use hauling coal to the port of Baltimore.

In addition to better power, today's locomotives are also more fuel efficient. They operate 50% more ton miles per gallon than the locomotives of 10 years ago. In light of the dramatic escalation in fuel prices last year, such efficiency has become more critical than ever, and will be a significant benefit to shippers and consumers on CSXT-used Conrail lines.

Today's CSXT coal cars carry an average of 102 tons. In 1996, CSXT reopened the Raceland Car Shop in Kentucky to produce approximately 12,000 cars in three years, the majority of which were coal cars -- open top hoppers or rotary dump gondolas. This $200 million

program resulted in the construction of cars capable of loading up to 115 tons.

With the enhanced market opportunities made possible by the Acquisition, CSXT will be able to handle increased volumes of coal traffic. Because of the increased volumes of coal traffic, CSXT will be economically motivated to make efficiency-enhancing capital investments that it otherwise would not make. Such capital investments will provide additional service efficiencies and further enhance competition for CSXT coal customers. For example, to accommodate transportation of MGA coal, CSXT plans to make substantial upgrades to the tracks at Newell Yard near Brownsville, WV.

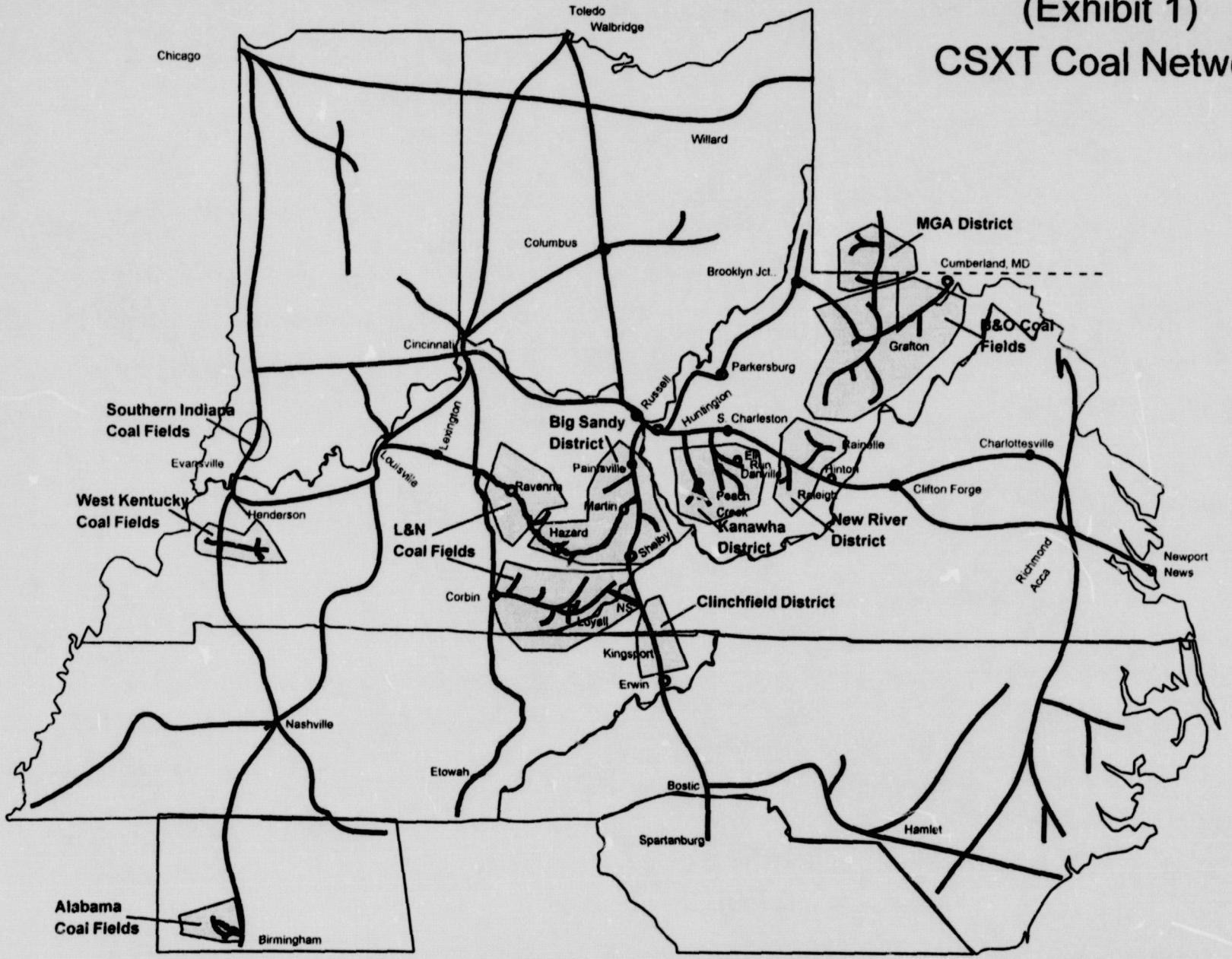
IV. CONCLUSION

The joint acquisition of Conrail by CSX and NS will provide significant benefits to coal consumers, coal producers, and coal exporters. By permitting CSX and NS to expand their systems into existing the Conrail service area, the Acquisition will increase the number of single-line movements both carriers can offer. With increased opportunities for single-line movements, coal producers will gain economic access to destinations in the Northeast and parts of the Midwest now served by Conrail. Coal consumers and exporters will gain

economic access to an increased number and diversity of coal sources.

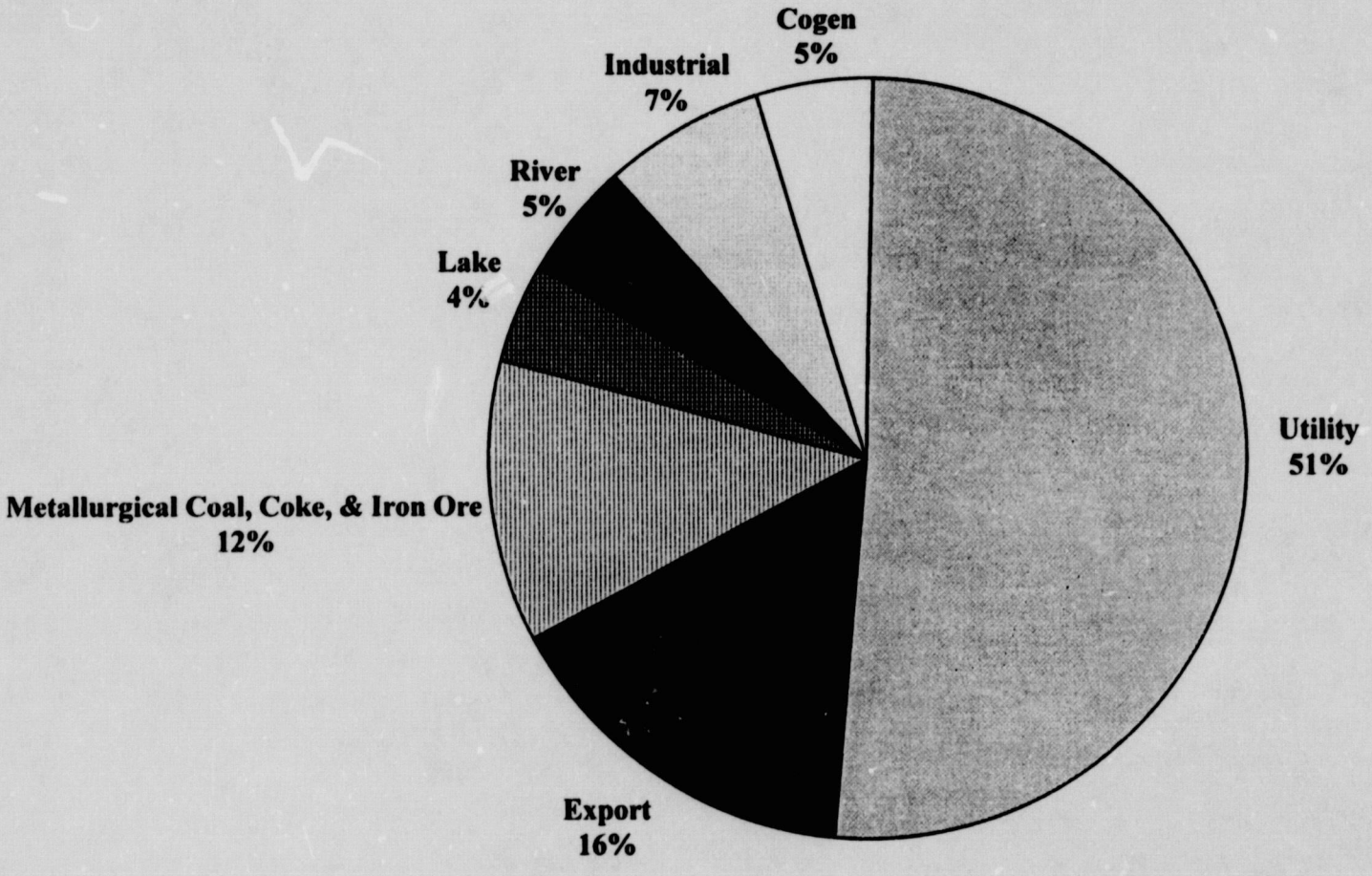
The increased number of efficient, single-line movements also will enhance competition in the coal transportation industry. As rail service efficiencies increase, rail transportation becomes a more attractive transportation alternative. Moreover, the Acquisition will stimulate additional competition between CSXT and NS.

(Exhibit 1)
CSXT Coal Network



(Exhibit 2)

CSXT COAL TRANSPORTATION REVENUE



APPENDIX

This Appendix describes the data sources used, the methodology, and the results of the traffic study conducted by CSXT coal, coke, and iron ore ("CC&IO") marketing personnel. The CSXT traffic study focuses on the difference between 1995 actual traffic and 2000 projected traffic.

A. Data Sources Used

1995 Traffic Data

CSX traffic was based on CSXT's computerized data compiled from actual waybill data in CSXT's billing system. These data reflect actual tons and carloads transported by CSXT and revenues earned on that traffic.

2000 Traffic Forecast

- For utility customers, the basis for the 2000 forecast was the 1995 delivered coal tons by origin source for each affected customer. This 1995 information was provided by an RDI database entitled COALDAT, which contains FERC (Federal Energy Regulatory Commission) data.

- For lake customers, the basis for the 2000 forecast is the 1995 delivered coal tons by origin source for the Ashtabula Harbor area.

- For industrial/cogeneration customers, the basis for the 2000 forecast is the 1995 delivered coal tons by origin source for the Industrial/Cogen traffic segment.

- For exports, the basis for the 2000 forecast is the 1995 delivered coal tons by origin coal source for CSXT's Export coal piers (DTA pier at Newport News, VA, Consol pier at Baltimore, MD and Bayside pier at Curtis Bay, MD).

- For steel customers, the basis for the 2000 forecast is the 1995 delivered coal tons by origin coal source for CSXT's post-acquisition steel customers transporting met coal, coke and iron ore. These 1995 delivered tons are identified by the LOB National Account Managers'

market knowledge and existing relationships with these customers.

B. **Methodology**

1995 Traffic Data

- CSXT computer data was compiled by a single market manager for all CC&IO customers.

- CSXT's share of Conrail traffic was allocated by ALK and is described in a separate study. (See Verified Statement of Howard A. Rosen).

2000 Traffic Forecast

- Each Line of Business ("LOB") was responsible for developing a traffic forecast for customers expected to be affected by the Acquisition. These customers include:

  CR-served that will become CSXT-served.

  CR-served that will become CSXT and NS-served.

  CSXT and CR-served that will become CSXT and NS-served.

  CR-served that will become NS-served.

  CSXT-served that will remain CSXT-served.

  Other rail served (UP, SP, B&M, RSR, GTW, CPRS, CN, SBRR, WLE) that will be joint-line with CSXT.

- Within each CC&IO LOB, market managers developed the related customer analysis for the traffic study. The data was summarized by a single market manager and reviewed by each LOB director.

- CSXT focused on identifying delivered tons from origin sources to specific customer destinations. Once tons were identified by OD pair, the LOB market managers utilized their market knowledge and experience to apply a corresponding rate structure.

- Carloads for each customer were based on average car lading per destination. If car lading weights were known for 1995, these same lading

weights were applied to 2000 delivered tons. If this information was not available through either CSXT's computerized database or market knowledge/business contacts, an average lading of 100 tons per car was applied.

° For utilities, train size, car type and car ownership for each destination was determined with information listed in Fieldston's Coal Transportation Manual. For all other CC&IO customers, market knowledge of or existing business contacts with these customers were used to determine this information.

Various information resources were utilized across the CC&IO customers to develop the volume forecast.

C. **Results**

The results of the study are summarized at a non-confidential level in the chart attached to this Appendix. On this chart, revenue, cars, and tons are separated between base and incremental. Base is traffic currently handled by Conrail to destinations that will be served by CSXT. CSXT expects to retain all of this traffic after the transaction. (The $5.6 million CSXT loss estimated by Mr. Rosen of ALK in his CC&IO Remainder Study is included in the attached chart.)

In sum, by the year 2000, CSXT expects to gain an additional 4,240,083 tons of coal delivery annually as a result of the Acquisition, resulting in an annual incremental revenue gain of $52.5 million. Revenue figures are based on marketing judgment of incremental revenue potential. Of this additional traffic, by the year 2000 CSXT expects that approximately $37.0 million will be diverted from the traffic lanes served by Conrail assets acquired by NS; $12.8 million will be diverted from water carriers (either barge or vessel); and $2.7 million will be diverted from trucks.

SUMMARY OF CC&IO MARKET TRAFFIC STUDY DATA

MERGER BENEFITS DIFFERENCE BETWEEN AND 1995 AND 2000		TONS	CARLOADS	REVENUE
UTILITY-NORTH	BASE	3,105,438	31,074	$14,467,452
	INCREMENTAL	-	-	$ 6,301,244
	TOTAL	3,105,438	31,074	$20,768,696
UTILITY-NORTHEAST	BASE	9,575,424	97,266	$135,355,050
	INCREMENTAL	147,920	1,479	$9,121,058
	TOTAL	9,723,344	98,745	$144,476,108
UTILITY-SOUTH	BASE	(600,000)	-	$4,956
	INCREMENTAL	1,000,000	3,630	$12,050,000
	TOTAL	400,000	3,630	$12,054,956
LAKE	BASE	1,029,024	10,540	$8,232,192
	INCREMENTAL	1,194,913	11,814	$10,359,824
	TOTAL	2,223,937	22,354	$18,592,016
INDUSTRIAL	BASE	1,232,318	12,736	$17,861,285
	INCREMENTAL	-	-	-
	TOTAL	1,232,318	12,736	$17,861,285
COGEN	BASE	288,000	2,939	$4,724,000
	INCREMENTAL	-	-	-
	TOTAL	288,000	2,939	$4,724,000
EXPORT	BASE	4,800,000	48,182	$43,501,900
	INCREMENTAL	666,000	6,558	$ 8,294,910
	TOTAL	5,466,000	54,741	$51,796,810
STEEL-MET COAL	BASE	287,483	2,425	$240,134
	INCREMENTAL	-	-	$2,650,000
	TOTAL	287,483	2,425	$2,890,134
STEEL-COKE	BASE	-	-	-
	INCREMENTAL	381,250	5,083	$4,664,063
	TOTAL	381,250	5,083	$4,664,063
STEEL-IRON ORE	BASE	(372,910)	(3,729)	-$2,740,889
	INCREMENTAL	850,000	8,500	$4,706,500
	TOTAL	477,090	4,771	$1,965,612
ALK STUDY ADDITIONS	BASE	1,279,314	14,757	$6,890,470
	INCREMENTAL	-	-	-$5,606,000
	TOTAL	1,279,314	14,757	$1,284,470
TOTAL CC&IO	BASE	20,123,481	210,202	$228,536,550
	INCREMENTAL	4,240,083	37,065	$ 52,541,599
	TOTAL	24,864,174	253,255	$281,078,149

VERIFICATION

I, Raymond L. Sharp, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this statement. Executed on June 5, 1997.

Raymond L. Sharp

Raymond L. Sharp

VERIFICATION

I, Raymond L. Sharp, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this statement. Executed on June 5, 1997.

Raymond L. Sharp

Raymond L. Sharp

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

VERIFIED STATEMENT OF DALE R. HAWK

VERIFIED STATEMENT

OF

DALE R. HAWK

My name is Dale R. Hawk, and I am Vice President and General Manager of the Automotive Business Unit of CSX Transportation, Inc. ("CSXT"). In this statement I will describe how the acquisition of Conrail by CSX and Norfolk Southern will benefit automobile manufacturers in the transportation of finished vehicles.[1]

I have worked for CSXT and its predecessor companies in various capacities for 28 years. I attended Ohio University and received my MBA from Case Western Reserve University. I joined the Chesapeake & Ohio Railway Company as a participant in a management training program in 1969, and worked in several different Finance Department positions for ten years. In 1979, I became Assistant to the President of Beckett Aviation, a subsidiary company. Upon returning to the railroad, I moved to the Operating Department and held several positions, including Division Manager-Akron Division and Division Manager-Cincinnati Division. From 1989 until July, 1991 I headed CSXT's Quality Improvement Process as Vice President-Quality. I then served as Vice President-Sales from July, 1991 to February, 1993, when I became Assistant Vice President-Metals Marketing. I assumed my current position as Vice President and General Manager of the Automotive Business Unit in February, 1995.

---

[1] I use the term "finished vehicles" to include automobiles, light trucks and minivans, as well as various other vehicles.

This statement consists of two parts. In the first part, I explain the current state of competition for the transportation of finished vehicles. Specifically, I explain the demands imposed upon transportation providers by auto manufacturers, the highly intense competitive situation today among rail carriers and between rail carriers and trucks, and the recent difficulties experienced by Conrail in competing for finished vehicles business due to its smaller route structure.

In the second part, I explain the terms of the Acquisition and the benefits it will provide to auto manufacturers. Specifically, I explain how the Acquisition will allow CSXT to provide more efficient service to auto manufacturers, increase competition through the creation of two rail competitors of nearly equal size with similar network coverage, and introduce head-to-head rail competition to regions and customers that do not presently have it.[2]

I. THE CURRENT STATE OF COMPETITION FOR THE TRANSPORTATION OF FINISHED VEHICLES

A. Auto Manufacturers Are Sophisticated Shippers

The auto manufacturing business is dominated by a few very large manufacturers that exercise considerable power over their transportation suppliers. Auto manufacturers ship finished vehicles in discrete, high volume movements from assembly plants to auto distribution centers ("ADCs"), also known as auto ramps.[3] Auto manufacturers are

---

[2] Included as an Appendix to this statement is a description of the methodology used in the traffic study that formed the basis for many of the assumptions in this statement.

[3] ADCs are facilities where finished vehicles are loaded or unloaded between multi-level rail cars and trucks as part of the transportation of the finished vehicles.

sophisticated and tremendously powerful shippers, and place increasing demands on their transportation suppliers to deliver efficient and economical service. Maintaining the same level of service is not sufficient. Rather, to keep current business and add new customers, transportation providers must constantly seek to improve their service.

The revenue generated by the transportation of automotive products is of considerable importance to the railroad industry. Industrywide, automotive traffic generates approximately $3.1 billion in rail revenue annually. For CSXT, automotive traffic generates a significant portion of total rail revenues as well, totalling $520 million dollars in 1996 and representing 10.5 percent of CSXT's 1996 operating revenue of $4.9 billion. Given the size and importance of this business, even small percentage shifts in manufacturers' traffic flows are meaningful and can have a substantial effect on a rail carrier's revenues.

The auto manufacturers are aware of the importance of their business and frequently use their leverage to pressure rail carriers to provide more efficient and higher quality service at lower rates. Much of their business is bid in large contracts or in package bids, and manufacturers often play one rail carrier off against another. Auto manufacturers also adopt contracting strategies to maximize their leverage over transportation suppliers. Some manufacturers are in the process of shifting to shorter term contracts of one, two, and three year's duration, rather than five year contracts, in order to take advantage of more frequent opportunities to extract low rates and better service from the rail carriers. In contrast, other manufacturers, notably Ford, have elected to concentrate their volumes in large, long-term contracts that, because of their size, encourage rail carriers to offer the best possible terms.

Moreover, as the auto manufacturers realize fewer efficiency gains in the production cycle, they are increasingly focusing on transportation and logistics as they search for opportunities to reduce costs. The manufacturers often use their leverage in the bidding process to place ever higher demands on rail carriers to deliver finished vehicles on time, damage-free and for lower cost. Each manufacturer has instituted programs to streamline the delivery of vehicles from assembly plant to customer, of which shorter transit times and more consistent and reliable service are major parts. For example, Toyota's Vision 2000 program calls for the delivery of a finished vehicle anywhere in the United States within seven days.

As part of this effort to restructure and improve their delivery systems, auto manufacturers have a preference for transportation providers able to provide integrated transportation management, forcing railroads to provide for the manufacturer's total transportation needs from assembly plant to dealer. A good example of this is Nissan's "Direct Dealer Delivery" program, which requires CSXT to provide seamless service from plant to dealer, including the coordination of rail and truck transportation, personnel, scheduling and tracking. This trend pressures rail carriers to be increasingly innovative and efficient when designing service packages for manufacturers.

B. Competition For Finished Vehicles Business Is Intense

Competition for the transportation of finished vehicles is intense and continues to pressure transportation providers to be efficient and to keep rates low. Competition among rail carriers is particularly vigorous. Part of this competition is due to the process used for the transportation of finished vehicles from origin assembly plant to dealer. Because the

final leg of the transit from assembly plant to dealer is by truck, a railroad need only have an ADC in the same general geographic area to offer competitive service. For example, CSXT today serves Ford traffic destined for Orlando, FL with an ADC located in Jacksonville, FL.

At the origin end of the supply chain, railroads can provide competitive service even where they do not serve the plant directly, because the finished vehicles can be transported by truck (called a "dray") to an ADC, loaded onto a rail car for transport to destination ADC, and then delivered by truck to the dealer. A good illustration is CSXT's successful bid to serve GM's Doraville, GA plant, despite its lack of direct access to the assembly plant, by using a nearby ADC in Lawrenceville, GA. CSXT has been able to provide efficient service to the assembly plants of several manufacturers in Detroit for many years through the use of an ADC at New Boston, MI. Even after the Acquisition gives CSXT direct access to the plants, CSXT will continue to serve these plants from New Boston because use of the ADC gives the manufacturer the option of mixing vehicles assembled at various plants onto a single train. This flexibility often gives manufacturers several rail options and places continual pressure on rail carriers to be innovative and to bid aggressively for business.

As manufacturers have begun to focus on transportation and logistics, competition among rail carriers has increased. Business that formerly was safe from direct rail competition is now rail competitive, as rail carriers search for more efficient ways to serve the needs of auto manufacturers. A recent example of the strong competition among rail carriers, particularly between CSXT and Norfolk Southern, was the bidding between those two rail carriers to serve the Ford assembly plant in Norfolk, VA. Bidding went several

rounds before CSXT won the contract, and CSXT currently serves the plant from an ADC at Chesapeake, VA.

In addition to strong competition among rail carriers, and particularly between CSXT and Norfolk Southern, competition from trucks is also significant, particularly on short hauls of below 300 miles. For example, traffic from Detroit assembly plants to the Chicago area auto dealers or from New Jersey assembly plants to the New York area auto dealers moves almost exclusively on truck.

Trucks are strong competitors even on some longer hauls, particularly those where the movements at issue allow trucks to ship loaded in both directions, reducing the number of empty miles traveled. Thus, trucks provide service on some routes where assembly plants are at both ends of the route, such as the route between the GM assembly plants at Spring Hill, TN and Oklahoma City. Despite the fact that the length of the route is 666 miles, trucks can and do provide service because they are able to pick up and drop off finished vehicles at both ends, minimizing the number of empty miles traveled.

While on average more expensive, trucks offer certain service advantages over rail, such as shorter average transit times. Trucks are also more flexible in that they can leave the plant with a smaller shipment and travel directly to the destination dealer, without the need for intermediate stops or classification, as occurs with rail transportation. If a shipment of finished vehicles moving by rail misses a connection, by contrast, it must wait for another train.

Even on longer hauls where rail has the advantage due to its cost structure, the availability of truck service often acts as a competitive check on the rail carrier. Should the manufacturer perceive of service difficulties or should rates increase, auto manufacturers will not hesitate to switch to trucks. For example, the recent shortage of bi-level railcars has led Ford temporarily to divert significant traffic from rail to trucks, even on some routes where trucks would not ordinarily be competitive with rail.

The converse is also true--even on those routes where trucks have service advantages due to length of haul or other factors, the availability of rail service operates to constrain trucks' ability to raise rates. For example, CSXT provides service from Michigan to Cincinnati, despite the relatively short distance involved. Although CSXT's service is secondary to trucks on the route, the presence of rail service acts as a competitive check should truck service decline or rates increase.

In short, competition for the transportation of finished vehicles is intense. Auto manufacturers, realizing fewer efficiency gains in the production cycle, are increasingly focusing on transportation and logistics costs and are exerting pressure on their transportation providers. Competition among rail carriers, particularly between CSXT and Norfolk Southern, is intense. Trucks provide additional strong competition, dominating on short hauls and constraining rail rates on longer hauls. The result is increasing competitive pressure on rail carriers to deliver fast, efficient, and economical service.

C. Conrail As a Declining Competitor

Due to in large part to its smaller network, Conrail has been precluded from competing with CSXT and Norfolk Southern in the South, Southeast, and Mid-Atlantic regions. Conrail has lost significant rail market share in its finished vehicles business in recent years, due both to plant closures on its lines and competitive bids lost to CSXT or Norfolk Southern. When bidding for a contract, CSXT today views Norfolk Southern and trucks as its primary competitors.

Conrail's lack of network coverage and the limited scope of its route structure means that in many cases Conrail simply cannot compete effectively. For example, despite Conrail's direct rail access to plants in the Detroit area, CSXT has for over ten years provided service for traffic from those plants destined for the Southeast. Despite its direct access to the assembly plants, Conrail would have had to interchange with another carrier to reach destinations in the Southeast. The auto manufacturers found that CSXT's rail service package, consisting of a short (thirty-five mile) truck dray to the New Boston ADC combined with single-line service from New Boston to destinations in the Southeast, was preferable to the alternative presented by Conrail.

Trends in the industry have increasingly hampered Conrail's ability to compete effectively. In an attempt to extract further efficiencies in the production and delivery chain, auto manufacturers are exhibiting a new preference for working with fewer, larger suppliers in all logistical areas. In the past, auto manufacturers believed that they would obtain favorable pricing and service by dividing their business among many different suppliers. In recent years, however, manufacturers have recognized that fewer, larger suppliers are able to

offer economies of size and scope, and are able to work closely with manufacturers to design individualized service packages. The manufacturers thus offer substantial business opportunities to those rail carriers that are able to meet their needs. Conrail's smaller route structure has often hurt its ability to compete in this respect.

One good example of this trend was Ford's recent introduction of the "mixing center" concept. Commencing operations in 1998, Ford will use four regional facilities to gather finished vehicles destined for delivery to dealers nationwide. Ford decided to use one rail carrier, able to provide service to all four locations. Conrail was at a distinct disadvantage in competing for the twelve year contract, which was ultimately awarded to Norfolk Southern. As a result of losing the Ford contract, Conrail faces the loss of approximately eight to ten percent of its finished vehicles business.

Conrail has also been hurt by several major plant closings on its lines, which has reduced the volume of business it serves directly. The closing of three GM assembly plants formerly sole-served by Conrail at Framingham, MA, Tarrytown, NY and Willow Run, MI has substantially reduced volume on Conrail's lines and affected its ability to maintain service dedicated to finished vehicles. The plant closings have also affected the overall economics of Conrail's finished vehicles business. When these assembly plants were operational, empty rail cars could be diverted to the plants for reloading with new finished vehicles and delivery to locations outside of the Northeast, reducing the number of empty miles. With the plants closed and the Northeast an even larger net receiver of finished vehicles, more hauls are loaded only one way, increasing the number of empty miles per load and raising Conrail's cost structure.

Further, Conrail's smaller route structure has constrained its ability to make new investments in its auto network. While 5 new ADCs have been built on CSX's system in the last ten years, only one has been built on the Conrail system.

Conrail has thus been squeezed on both ends--origin (due to plant closings) and destination (due to a smaller network and less extensive ADC coverage). The result has been Conrail's increasing inability to compete with CSXT or Norfolk Southern for finished vehicles business.

II. BENEFITS OF THE ACQUISITION

The Acquisition augments the CSXT auto network by providing CSXT access to the former Conrail ADCs in Framingham, Ayer, and Westboro, MA and Selkirk, NY.[4] CSXT will also gain direct access to the Honda assembly plants at East Liberty, OH and Marysville, OH. Additionally, both CSXT and Norfolk Southern will gain access to five current Conrail ADCs and two assembly plants in the North New Jersey shared assets area and one existing Conrail ADC and five current Conrail served assembly plants in the Detroit shared assets area. As a result of the Acquisition, CSXT expects the combined system to capture an additional 8400 carloads per year, resulting in annual incremental revenue gains of $15.4 million dollars. Of this additional revenue, $12.5 million, or 5950 carloads, is expected to result from diversions from the Norfolk Southern, and $2.9 million, or 2459 carloads, is expected to result from diversions from trucks.

---

[4] TDSI, an affiliate of CSXT, operates the auto ramps adjacent to the CSXT rail system. After the Acquisition, TDSI will operate the ramps allocated to Conrail.

To serve the customers that will be added to its system as well as its existing automotive customers, CSXT expects to add 18 new multi-level trains to its 35 current trains, for a total of 53 multi-level trains dedicated to the transportation of finished vehicles. After the Acquisition, 83 percent of CSXT's finished vehicles traffic will travel at least a portion of their route in dedicated multi-level trains.

The addition of Conrail routes and facilities to the CSXT network will provide significant benefits to auto manufacturers by improving service, increasing competition through the creation of two rail carriers with broad and balanced network coverage, and providing new rail competition where none exists today.[5]

A. The Acquisition Will Make CSXT A More Efficient Competitor and Improve Service For Auto Manufacturers

The Acquisition will improve CSXT's ability to compete by increasing the efficiency of its service. Auto manufacturers will benefit from the elimination of joint-line routes and time-consuming interchanges, an improved route structure, reduced transit times, better equipment utilization, and improved consistency and reliability of operations.

As detailed in the Operating Plan, an important part of this improved service will be the segregation of finished vehicles traffic from general merchandise traffic through the use of dedicated switching facilities at Cleveland, (serving the Northeast), Cincinnati, (serving the Southeast), and Chicago (where traffic is interchanged for locations west of Chicago).

---

[5] Verified Statements in support of the Acquisition have been submitted by Chrysler Corporation, V.S. of Krajca, Vol. 4B; American Honda Motor Co., V.S. of Bengston, Vol. 4B; Mazda Motor of America, Inc., V.S. of Beyer, Vol. 4D; Nissan North America, Inc., V.S. of Frinier, Vol. 4D; American Isuzu Motors Inc., V.S. of McKinney, Vol. 4B; Subaru of America, V.S. of Marinaccio, Vol. 4E; and Volkwagen of America, V.S. of Fletcher, Vol. 4E.

These switching facilities will be used to gather finished vehicles traffic from origin assembly plants, where it will be classified into entire dedicated trains or large multi-level blocks of cars that will then move directly to destination ADCs without the need for further classification.

Today, multi-level traffic is often classified at general merchandise yards, which detracts from the safe and efficient handling of vehicle traffic. By using tracks, personnel, and equipment dedicated to finished vehicles traffic, the dedicated yards will reduce transit times and improve reliability, enabling CSXT to better respond to manufacturers' demands for on-time service. Additionally, the Cleveland and Chicago yards are not "hump" yards, which use a classification process that can potentially cause damage to fragile cargo. Rather, they use specialized handling techniques, including "shove-to-rest" switching, which reduce damage.

Single-line service is particularly important in the transportation of finished vehicles, because of the increasing pressure exerted by auto manufacturers to deliver finished vehicles to the dealers more quickly and consistently. Each interchange increases transit times and makes it more likely that a carload will miss its connection and have to wait for the next train. Unlike a carload of coal or grain where the missed connection may be less of a problem, consistent delays of multi-level finished vehicle trains by as little as a day can cost a rail carrier a contract.

Auto manufacturers will benefit from CSXT's improved ability to respond to this time pressure by providing increased single-line service.[6] Single-line routings will increase from 28 percent of CSXT's finished vehicles traffic base to 39 percent after the Acquisition. A good illustration is traffic from the Nissan assembly plant at Smyrna, TN, which will for the first time move on single-line service to ADCs in New York, New Jersey and Massachusetts.[7] Additionally, traffic originating at assembly plants in the Northeast, such as traffic from the plants at Linden, NJ and Edison, NJ, will move via single-line service to locations in the Southeast, reducing transit times by an estimated 24 hours per shipment.

The Acquisition will also improve CSXT's ability to respond to auto manufacturer's demands for more reliability and consistency. As explained above, auto manufacturers are less willing to tolerate delays or inconsistent service. For example, as a result of the Acquisition, CSXT will construct new connections to allow faster service from the Honda assembly plants at East Liberty and Marysville, OH to Chicago. CSXT's service will be two hours faster than Honda's current service on Conrail, enabling that traffic consistently to arrive in time to interchange with the Burlington Northern/Santa Fe (BNSF) for movement to destinations in the West. Currently, traffic from those assembly plants sometimes misses the

---

[6] For example, in its Verified Statement submitted in support of the Acquisition, Chrysler Corporation notes that "the increased number of city pairs served by both CSX and NS will lead to an increase in single-line service opportunities for Chrysler. . . . Increased single-line opportunities are important to Chrysler. It has been Chrysler's experience that single-line service is faster, more reliable, and allows for better shipment tracking than joint carrier moves." See V.S. of Krajca, Vol. 4B.

[7] Nissan, in its Verified Statement submitted in support of the joint application of CSX, Norfolk Southern, and Conrail, echoes this point: "We believe that the transaction will be of particular benefit to Nissan by creating single-line service from our plant in Smyrna, TN to destinations in the Northeast." See V.S. of Frinier, Vol. 4B.

connection and is required to wait a full day for connection with another westbound BNSF train.

The Acquisition will also improve reliability and consistency of service in the handling of empty cars. Increased dedication of facilities for the staging and classification of empty cars, as well as loaded cars, will save significant amounts of time on empty flows and improve the utilization of equipment.

Finally, as detailed in the Operating Plan, auto manufacturers will benefit from improved service in the form of eliminated drays and shorter routes, and more efficient service to export ports and Western gateways.

These improvements will make CSXT a more efficient competitor, allowing it to better serve current customers and enabling it to provide more competitive bids for new business.

B. The Acquisition Will Result In Increased Competition

The Acquisition will increase competition in the Eastern market by creating two comparably sized, financially solid railroads serving most major markets in the East. Due to similar network coverage, nearly equal volumes, and shared access to certain important areas, CSXT and Norfolk Southern will be strong and vigorous competitors.

The balanced competition resulting from the Acquisition can be reflected in terms of access to origin vehicle production capacity. As a result of the Acquisition, CSXT will have direct access to 35 percent of the entire North American vehicle production capacity, including Canada and Mexico, and Norfolk Southern will have access to a slightly higher share.

The Acquisition will give the two rail carriers similar network reach, one of the most important factors examined by auto manufacturers in deciding to award contracts. In the portion of Honda's Verified Statement submitted in support of the Acquisition that discusses the benefits of new two-carrier rail competition in the Northeast, Honda's Vice President for Auto Distribution and Logistics notes that "these carriers cannot be just any rail carriers. They must be comparable in terms of their size, scope and ability to provide a competitive service. From what I understand of railroad operations, I believe that in the 1990's, two carriers of relatively equal size and scope provide the greatest opportunities for seamless service, efficient equipment utilization and seamless synergy's [sic]."[8]

The importance of network reach is also reflected in CSXT's continued advantage in serving certain manufacturers, particularly GM, to certain destinations in the Southeast, due to the better coverage of its ADC system in that region. While CSXT has a total of 31 ADCs in the Eastern United States concentrated in important regions of Florida, Maryland, Georgia, Michigan and Tennessee, Norfolk Southern has 15 ADCs spread out throughout the South and East.

The Acquisition will improve the network and ADC coverage of both CSXT and Norfolk Southern and, more importantly, will enable both rail carriers to provide competitive rail service to virtually all of the major areas in the Northeast, South and Southeast.

Additionally, competition for traffic to the Western gateways of Chicago and St. Louis is expected to be particularly intense. While competition for traffic to destinations in the Southeast and Northeast will also increase, the existing route structure and location and

---

[8] See V.S. of Bengtson, Vol. 4B.

coverage of ADC's in the Southeast and Northeast affect a rail carrier's ability to provide service to those regions. Because the destination locations are the same, however, competition for traffic to the Western gateways will be based strictly on price and service.

The expanded CSXT auto network will also be better able to compete with trucks. In addition to the expanded coverage and fewer interchanges offered, CSXT's three year capital improvement plan calls for the clearance of the Virginia Avenue tunnel in Washington, DC. This will significantly shorten the route for traffic moving from the Northeast to Florida and vice versa (which today travels on CSXT's system via Cincinnati), resulting in new competition with trucks and the potential annual diversion of 3400 truckloads, or 2450 railcar equivalents, from the highways to rail.

In the short term, CSXT expects these truck diversions, plus the elimination of at least another 5400 shorter drays from assembly plant to ADC. For the long term, the improved efficiencies offered by the enhanced CSXT auto network should make our service more competitive with truck and allow the diversion of an even greater number of trucks from the highways to rail.

C. The Acquisition Will Bring New Competitive Service To Areas Where There Is None Today

The Acquisition will also benefit auto manufacturers by introducing direct head-to-head rail competition from origin to destination to areas lacking such competition today, including the shared assets areas in New York/New Jersey and Detroit. The new direct rail competition is significant, given that those areas together account for 21 percent of the entire North American finished vehicle production capacity and the large consumer market in the greater New York area. In addition, the Acquisition will introduce more

vigorous competition to traffic along some routes that are currently subject to rail competition between Conrail and CSXT or Norfolk Southern, but for which Conrail is limited in its ability to compete due to its smaller network.

1. New York/New Jersey

Since its creation in 1976 from the bankrupt state of Eastern railroads, Conrail has enjoyed a near monopoly on rail service in the New York/New Jersey region. Today the region is the largest receiver of finished vehicle carloads in the Unites States, accounting for approximately 40,000 carloads per year. Assembly plants in the region produce an additional 20,000 carloads per year for delivery by rail to other areas of the country.

Today, CSXT serves the greater New York area from the ADC in Twin Oaks, PA, 125 miles away. CSXT has been able to compete with Conrail and trucks for such business to some extent, particularly to locations in the Southeast where CSXT can offer single-line service from Twin Oaks. However, CSXT has been limited by the length of dray involved, and has been only a secondary alternative to Conrail's direct rail service. The creation of the shared assets area will allow both CSXT and Norfolk Southern direct, single-line service to current Conrail ADCs and assembly plants in the region, creating more effective two-carrier rail competition than has existed in the past.

Further, because CSXT and NS will both have access to assembly plants and ADCs in the region, competition will be focused on price and service rather than locational advantages.

2. Detroit

In the Detroit shared assets area, four assembly plants and the current Conrail ADC at Detroit (North Yard) will be open to both rail carriers. Together, the Detroit shared assets area assembly plants account for 58,000 rail carloads per year, all of which will be open to competition from CSXT and Norfolk Southern, both of which will serve all major Eastern destination markets and connect with Western carriers at Chicago and St. Louis. Detroit assembly plants ship an additional 16,000 railcar equilavents by truck, mostly to locations within a few hundred miles of Detroit, such as Chicago and Cleveland.

One-third of that railcar traffic, or 19,100 carloads, goes to the Northeast ADCs and is today sole-served by Conrail. Both CSXT and Norfolk Southern will be competitive for this traffic, in some cases competing from assembly plant in the Detroit shared assets area to destination ADC in the North New Jersey shared assets area, meaning that the auto manufacturer will be able to choose based strictly on service and economics.

The Acquisition will also allow both CSXT and Norfolk Southern to compete for the 40 percent of Detroit traffic that goes to Chicago and St. Louis for interchange with Western rail carriers (currently carried by Conrail) and the 27 percent of Detroit traffic destined for the South and Southeast (currently served by CSXT, with its ADC at New Boston, and NS, with its ADC at Melvindale).

3. Traffic Subject to Limited Competition from Conrail

In addition to the shared assets areas, the Acquisition will bring new competition to customers that today receive limited competitive rail service because Conrail has been hampered in its ability to compete due to its smaller network. The replacement of Conrail

with CSXT or Norfolk Southern as the competing carrier will provide new and stronger competition for these customers and areas, forcing the incumbent rail carrier to improve to keep the business of the manufacturer.

A good example are the GM assembly plants at Lordstown, OH and Baltimore, MD, to which both CSXT and Conrail currently have access. At present, however, CSXT provides service for 100 percent of the total traffic at Lordstown and 85 percent of the total traffic at Baltimore, due in part to Conrail's lack of network coverage in the South and Southeast. After the Acquisition, CSXT's competitor for business from those plants will be Norfolk Southern, rather than Conrail. With its broader network coverage, comparable to that of CSXT, Norfolk Southern will be more competitive for GM's business than was Conrail, keeping pressure on CSXT to continue to provide competitive pricing and service.

III. CONCLUSION

The Acquisition will be of particular benefit to auto manufacturers, who will receive improved service and increased competition. Unlike the partially imbalanced situation today, where many customers and regions do not receive the benefit of true competitive rail service, the Acquisition will create two balanced rail competitors with similar access to origin assembly plants and virtually all major destination markets in the East and South. The result will be intense competition to maintain existing customers and add news ones, which can only benefit auto manufacturers seeking faster, more reliable, and more cost-effective service.

APPENDIX

This appendix describes the data sources and methodology used in the traffic study conducted by CSXT marketing personnel in the Automotive Business Unit. The traffic study was conducted under my direction and supervision by CSXT marketing personnel. The results of the study were used to estimate traffic flows as they will exist after the Acquisition, and thus formed the basis for the finished vehicles verified statement.

A. Data Sources Used

Traffic information from three sources formed the basis of the study:

1. Traffic files representing 100 percent of actual traffic movements handled by CSXT during the calendar year 1995;

2. Traffic files representing 100 percent of actual traffic movements handled by Conrail during the 1995 calendar year to or from locations which will be served by or accessible to CSXT.[1] Conrail traffic is divided into two categories:

    a) Conrail traffic moving over lines CSXT will operate under the terms of the Acquisition, or

    b) That portion of Conrail traffic in the shared assets areas that CSXT will handle after the Acquisition, as projected by ALK Associates.[2]

3. Incremental traffic not handled by either Conrail or CSXT representing 100 percent of traffic movements in identified origin-destination lanes during calendar year 1995. Volume information was derived from manufacturer-provided traffic information or the estimates made by marketing personnel based on general market knowledge.

---

[1] No CSXT personnel with responsibility for marketing decisions was given access to commercially sensitive Conrail revenue information.

[2] For a description of the methodology used by ALK Associates in its traffic studies, see the V.S. of Rosen, Vol. 2.

Two base adjustments were made to the 100 percent actual traffic movement data in order to more realistically represent traffic flows as they will exist after the Acquisition in 1998:

1. Actual 1995 Ford Motor Company finished vehicle traffic movements were replaced by those movements which CSXT is projected to handle (either over the current CSXT network or those former Conrail lanes CSXT will operate under the terms of the Acquisition) as a part of the Ford "mixing center" network scheduled to begin operation in 1998. Actual 1995 volumes supplied by Ford Motor Company were used on "mixing center" routes.

2. Traffic actually handled by Conrail in 1995 from the GM assembly plant in Tarrytown, NY was eliminated from the study because GM has permanently closed the facility. Production at the Tarrytown assembly plant was shifted to the GM assembly plant at Doraville, GA, currently served by CSXT. Accordingly, CSXT traffic flows from the Doraville plant were increased to account for the Tarrytown closing.

B. Methodology

Once the data sources were compiled and adjusted, CSXT marketing personnel made a movement-by-movement analysis, based on marketing judgment, to project certain haul extensions and diversions from competing truck and rail routes. The basis for these determinations included such factors as new single-line service created as a result of the Acquisition (i.e., routes which currently are joint-line CSXT/Conrail routes but which will become CSXT single-line service), new access to production facilities by CSXT, and shorter or less circuitous routes compared with current routes.

VERIFICATION

STATE OF FLORIDA)
) ss.
COUNTY OF DUVAL)

Dale R. Hawk, being duly sworn, deposes and says that he is the Vice President and General Manager of the Automotive Business Unit of CSX Transportation, Inc., that he is qualified and authorized to submit this Verified Statement, and that he has read the foregoing statement, knows the contents thereof, and that the same is true and correct.

Dale R. Hawk

Subscribed and sworn to before me by Dale R. Hawk, this 6th day of June, 1997.

Marlene H. Ross
Notary Public

MARLENE H. ROSS
Notary Public - State of Florida
My Commission Expires Sep 2, 1999
Commission # CC 490741

VERIFICATION

STATE OF FLORIDA)
) ss.
COUNTY OF DUVAL)

Dale R. Hawk, being duly sworn, deposes and says that he is the Vice President and General Manager of the Automotive Business Unit of CSX Transportation, Inc., that he is qualified and authorized to submit this Verified Statement, and that he has read the foregoing statement, knows the contents thereof, and that the same is true and correct.

Dale R. Hawk

Subscribed and sworn to before me by Dale R. Hawk, this 6th day of June, 1997.

Marlene H. Ross
Notary Public

MARLENE H. ROSS
Notary Public - State of Florida
My Commission Expires Sep 2, 1999
Commission # CC 490741

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC. AND
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

VERIFIED STATEMENT OF CHRISTOPHER P. JENKINS

VERIFIED STATEMENT
OF
CHRISTOPHER P. JENKINS

INTRODUCTION

My name is Christopher P. Jenkins. I currently hold the position of Vice President, Chemical Marketing, for CSX Transportation. In this position, I am responsible for CSXT's $750 million per year chemical transportation business. My specific responsibilities include oversight of pricing, development and implementation of marketing strategy, and strengthening key customer relationships.

I have previously held various positions in CSX's marketing department, including Assistant Vice President for Agricultural Products, Assistant Vice President of Marketing Services (with responsibility for freight claims, damage prevention, and price administration), Assistant Vice President for Energy Systems Development (with responsibility for development of coal-fired non-utility electrical generating plants, such as cogeneration and independent power production facilities), and Director of Market Planning and Research. I began my career at CSXT as a strategic planning analyst. I hold an M.B.A. Degree from Harvard Business School and a Bachelor's degree in Economics from Williams College.

My statement addresses the market impacts of the proposed joint acquisition of Conrail by CSX and Norfolk Southern with particular reference to CSX's general merchandise traffic. My primary purpose is to describe the benefits for current and future CSX customers that will occur if CSX is authorized to operate certain lines and other facilities of the current Conrail system as contemplated in the joint application. The principal benefits that our customers will see include: improved service in the form of reduced transit times; increased reliability of rail shipments of freight, particularly in terms of on-time delivery; an extension of CSX's superior safety record to the traffic of Conrail customers who will be served by CSX; reduced cycle times for customers who own their own cars; improved equipment availability stemming from reduced cycle times for customers who rely on CSX system equipment; and access to new commercial areas.

CSX's improved service will allow us to attract new customers, particularly from trucks which are our principal competition for general merchandise traffic. We will also be positioned to continue our vigorous intramodal rail competition with Norfolk Southern. The geographic arena of this competition will expand from the Midwest and Southeast where we currently

compete with Norfolk Southern into the densely populated mid-Atlantic region, and into the Northeast as well.

My statement is organized as follows. I begin with a description of CSX's general merchandise traffic base. I then describe certain challenges that CSX currently faces in providing general merchandise service, with particular reference to our current competitive position vis-a-vis trucks. I next describe the ways in which the transaction will allow us to improve our service and compete more effectively with trucks, water vessels and other rail carriers. Finally, I describe the benefits to customers and CSX through new market opportunities created by the transaction, including CSX's new opportunity to compete for general merchandise traffic moving to and from New Jersey, New York and New England.

I. OVERVIEW OF CSX'S GENERAL MERCHANDISE TRAFFIC BASE

General merchandise traffic represents a very important segment of CSX's overall traffic base and one that should realize significant service improvements and long term growth as a result of the proposed transaction. In 1995, the base year for purposes of our application, CSX's revenues on general merchandise traffic were approximately $ 2.35 billion, or approximately 45 percent of our overall freight revenues of $5.24

billion. We hauled 152 million tons of general merchandise traffic in 1995, which amounted to 1.89 million carloads.

For marketing purposes, CSX's general merchandise traffic is organized into six principal commodity groups: (1) chemicals and plastics, (2) forest products, (3) metals, (4) minerals, (5) agricultural products, and (6) food and consumer products.[1/] There are numerous specific commodities that fall within each of the five commodity groups and it is not feasible to describe all of them for purposes of this testimony. The description below focuses on the major commodities within each group.

A. Chemicals and Plastics

Chemicals and plastics moving on CSX accounted for $721.2 million of freight revenue in 1995. The principal commodities in this group include plastics, plastics intermediates (materials necessary for the production of plastics), bleach and paper chemicals, chemicals for glass manufacturing (e.g. soda ash), inorganic acids (such as sulfuric

---

1/ Two commodities not included in our general merchandise traffic group are phosphates and fertilizers. These commodities are handled by CSXT's Florida business unit. If the transaction is approved, there will be some new opportunities for single-line hauls from Florida's Bone Valley to distribution points on the acquired Conrail lines. However, because the bulk of this business is concentrated in Florida, I do not expect that the transaction will have a major impact on it.

acid), industrial and solid waste, specialty chemicals, industrial gases, pulp mill chemicals, and petroleum products.

Plastics and chemicals move throughout the CSX system, with major flows from the Texas and Louisiana Gulf Coast to CSX terminating points in the Southeast, Mid-Atlantic states and Midwest. Currently, CSX also interchanges a significant amount of chemical traffic with Conrail. For example, there are significant flows of chlorine and caustic soda from the Niagara frontier into the CSX service territory. In 1995, we interchanged 30,658 carloads of chemical traffic with Conrail. Over 4,000 of these carloads were plastics produced in CSX service territory that were interchanged with Conrail for delivery to manufacturers located on Conrail's lines.

The vast majority of chemicals and plastics that CSX handles are used in industrial manufacturing processes. Typically, the shipper and/or the receiver of the chemicals that CSX transports operates a continuous process facility, which means that the facility cannot be shut down without great expense. Thus, the transportation of these products, whether by truck, barge or rail, is a vital link in the manufacturing process, making transit times and reliability of delivery a key concern of shippers and receivers of chemicals and plastics.

Rail movements of chemicals and plastics raise important issues of safety and reliability. CSX handled over 250,000 carloads of hazardous materials in 1995, the vast majority of which were chemicals. CSX is committed to the safe handling of chemical traffic on our railroad. Our customers are similarly committed and safety is therefore a primary criterion influencing the selection of carriers in the competition to transport hazardous materials.

CSX carries a wide variety of plastics throughout its system and interchanges many shipments of plastics with other rail carriers, including Conrail. The plastics handled by CSX are typically produced from chemical feedstocks and used in additional production processes to create finished consumer products, such as polypropylene used in the manufacture of carpet and polystyrene, which is widely used in the manufacture of injection-molded products. The quality of the delivered product is of critical importance to receivers of plastics.

B. Forest Products

Movements of forest products on CSX accounted for $508.6 million in revenues in 1995. One of the principal sets of commodities in this group is paper products. This includes linerboard, or pulpboard, used in the manufacture of cardboard boxes. CSX handles significant moves of linerboard and pulpboard

from the paper mills of the Southeast into the Northeast consuming region, which is served by distribution facilities located on Conrail. Other products moving out of the southeastern paper mills on CSX are newsprint and finished paper.

The other major set of commodities falling within the forest products group is wood products, which includes lumber, plywood, and wood chips used in the manufacturing of paper. Flows of wood products on CSX originate at southern lumber mills and move to distribution facilities in Conrail served territory, including many on lines where CSX will operate after the transaction. Another major flow of lumber originates in the Pacific Northwest and comes onto CSX at Chicago in interchange from western carriers. CSX transports these wood products to reload centers and wholesalers throughout those areas of the Midwest and East that it serves. Conrail also receives wood products in interchange from Western carriers at Chicago. In addition, it handles wood products moving into the Eastern United States from Eastern Canada.

C. Metals

The metals group accounted for $278.1 million in revenues on CSX in 1995. One of the principal commodities in this group is scrap iron and steel. The major consumers of scrap are the so-called "mini-mills" (steel manufacturers), which are

located primarily in the South on CSX. In contrast to the integrated steel mills, which produce steel from iron ore in blast furnaces, the mini-mills are heavily dependent on scrap to produce steel. CSX handles approximately 100,000 cars of scrap per year. Scrap originates throughout the United States, including points served by the CSX rail network. The volume of scrap available at any given point is highly correlated to population density, making Conrail territory a rich new source for CSXT mills.

A second important commodity in the metals group is sheet steel, which is used in various manufacturing processes, including the manufacture of automobiles and appliances. Sheet steel originates at both integrated steel mills and mini-mills; it is shipped in coils in specialized equipment. Most sheet steel that moves on rail is handled in single-line service because the customers require a level of service that railroads are best able to provide in single-line movements. Rail carriers are somewhat disadvantaged in competing for movements of sheet steel because of customer perception that there is a greater risk of damage to the edges of steel coils when moving sheet steel via rail. Furthermore, in winter many mills stop shipping by rail because the coils can be damaged by moisture. These are problems

that can be alleviated by reducing transit times and the number of in-route classifications.

Slabs of semi-finished steel move by barge up the river system into the Midwest from New Orleans. While there is a preference for barge over rail, rail has had a role in these movements in periods of tight barge supply. CSX's ability to compete for this traffic would be enhanced by the ability to provide single-line service into current Conrail's service territory.

Another sub-group of metals consists of bar, rod and structural steel. Most of this traffic currently moves by truck in relatively short hauls. These commodities are well suited for truck movement because they are valuable finished products that are readily divisible into truck sized loads. In addition, some longer hauls, for example those from New Jersey to Florida, are moving by coastal vessels.

D. Minerals

CSX revenue on movements of minerals was $318.7 million in 1995. A major commodity sub-group in the metals group is aggregates (crushed stone, common sand and gravel), which accounts for about half of the minerals carloads and about one quarter of the revenue. A second important commodity is clays, which accounts for about $50 million in revenue. Next in

importance is industrial sand. Cement, roofing granules, slag, ores and miscellaneous minerals round out this commodity group.

Aggregates originate at many points on the CSX system. They are heavy-loading bulk commodities of low value. For that reason, the preponderance of aggregate shipments move relatively short distances.

Kaolin clay is used as a coating in the paper manufacturing process. It tends to move in customer-owned equipment. A principal flow of the commodity on CSX is from central Georgia to southeastern paper mills.

Industrial sand is used primarily as a raw material in the manufacture of glass and in various other industrial applications, including foundry applications. CSX serves the Illinois sand district which is about 80 miles southwest of Chicago. CSX also serves origin points in West Virginia and the Carolinas. As in the case of aggregates, industrial sand is a heavy-loading, relatively low value commodity that tends to move relatively short distances.

E. Agricultural Commodities

In 1995, agricultural commodities accounted for $379.6 million in CSX revenues. CSX's single largest agricultural product is feed corn. Feed corn from CSX served origins flows primarily out of the eastern cornbelt (Illinois, Indiana, Ohio

and Michigan) to southeastern poultry and pork producers located in North Carolina, Georgia and Alabama.

The second largest movement of agricultural commodities on CSX is soybeans which move out of the eastern cornbelt to forward soybean processors in the Carolinas, Georgia, and Alabama.

The third principal flow of agricultural products on CSX is various grains moving to Baltimore and the River Ports for export. CSX sometimes moves grain directly to the Gulf ports for export, but favorable barge economics make it difficult for rail to compete successfully for this traffic except when barge prices rise above normal levels.

CSX also handles significant movements of finished agricultural products, including corn syrup, flour and starch. In general, these products move from west to east. For example, corn syrup produced in Illinois and Ohio is consumed in the Philadelphia, Baltimore and Richmond markets.

F. Food and Consumer Products

Food and consumer products accounted for $143.4 million in revenues for CSX in 1995. This group includes numerous commodities, the more important of which are fresh fruits and vegetables, canned goods, alcoholic beverages, appliances, and transportation equipment on its own wheels

(railroad cars). With the exception of transportation equipment, railroads currently handle a very small share of food and consumer products. The vast majority of this freight moves by truck.

Flows of fresh fruits and vegetables on CSX are primarily west to east interline traffic received from UP. CSX also originates movements of fruit juice in Florida that are destined for the consuming markets of the Northeast and Midwest. The traffic patterns for movements of canned goods on CSX are essentially similar to those for fruits and vegetables -- west to east flows.

CSX receives beer and wine in interline service from western carriers. It originates shipments of beer from domestic breweries in Florida and Virginia. Other movements of food and consumer products are widely dispersed across the CSX system.

II. THE PROPOSED TRANSACTION WILL ENABLE CSX TO PROVIDE BETTER SERVICE AND COMPETE MORE EFFECTIVELY WITH TRUCKS FOR THE TRANSPORTATION OF GENERAL MERCHANDISE TRAFFIC

The overriding commercial reality that we face in marketing CSX's general merchandise traffic is fierce and pervasive competition from trucks. Norfolk Southern, regional rail carriers and water vessels provide vigorous competition for much of the general merchandise traffic that we handle. We will continue to try to win profitable business away from our rail and

barge competitors wherever it is feasible to do so. The reality, however, is that trucks go everywhere. They reach their destinations quickly and reliably, satisfying precise delivery schedules. They provide efficient and economical service. Trucks operate over the federally funded interstate highway system, as well as over state-funded highways, and are thus able to enter and exit markets virtually at will without having to incur heavy capital costs. For these reason, among others, trucks handle the vast majority of general merchandise freight in both CSX's and Conrail's service territory.

CSX faces intense competition in all of its core merchandise groups. Trucks are the dominant mode of transport for food and consumer products, forest products, and various mineral and metals products. Trucks also compete effectively with railroads in the transportation of chemicals, plastics and grain. Measured in terms of revenue, the truck share of all intercity freight in the eastern United States in 1995 was 84 percent, versus only 12 percent for rail and 4 percent for barge. Even on relatively long hauls, i.e. over 500 miles, truck more than holds its own versus rail east of the Mississippi. The truck share of such long-haul movements is 57.8 percent, versus 42.2 percent for rail

Although far less pervasive than truck competition, barge competition is a significant competitive constraint for portions of our general merchandise traffic. We face competition from barges for the movement of grain, chemicals, metals and minerals. Moreover, pipelines and ocean going vessels provide vigorous competition for the movement of petroleum products into our service territory. Many industrial chemicals are moved to east coast and southeast ports by specialized chemical tank vessels.

A. Factors that Constrain CSX from Winning a Larger Share of General Merchandise Traffic

One of our preeminent goals at CSX is to win general merchandise traffic away from trucks and other modes by providing a superior service package and attractive prices to prospective customers. For rail to be selected by the customer, we must provide greater overall value to the customer. The value as perceived by the customer is a combination of the time it takes to provide the service, the reliability of the service, the price, the carrier's responsiveness to the customer's concerns and the safety record of the carrier delivering the goods.

To compete more effectively with trucks and other modes than we do today, we are striving to maximize the overall value of our service to our customers. While we are improving,

we must overcome certain limitations of our current service offerings to win the competitive battle. Let me briefly review some of those limitations, particularly as they effect our competitive position on general merchandise traffic vis-a-vis trucks.

In many cases, the need to interchange general merchandise traffic with another carrier or to reclassify it multiple times on our own system results in unacceptably long transit times for rail movements. Shippers select truck over rail because they cannot tolerate the delays associated with interline rail movements and inefficient single-line movements. In some cases, rail shipment may require customer purchase of specialized equipment and the customer may decline to make the investment because he anticipates inefficient utilization of that equipment owing to interline movements.

The greater reliability of trucks in meeting customers' delivery schedules is another factor that places us at a competitive disadvantage vis-a-vis trucks. For example, trucks are vigorous competitors for the transportation of manufactured products and fresh and frozen foods even on long-haul movements because they offer much faster transit times and greater reliability than is offered by rail. A receiver who requires inputs for a manufacturing process or who has a contractual