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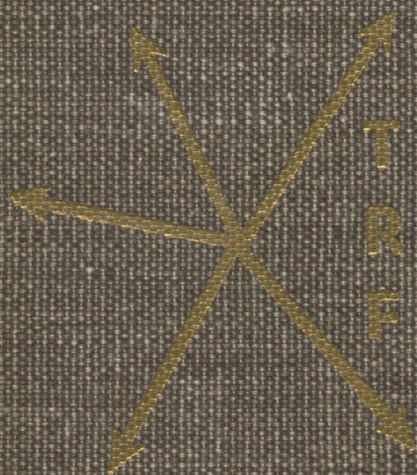
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PROCEEDINGS —

Twenty-second Annual Meeting

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TRANSPORTATION RESEARCH FORUM

PROCEEDINGS —

Twenty-second Annual Meeting

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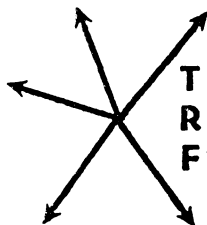
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TRANSPORTATION RESEARCH FORUM

Automation of the Car Distribution Function On the Boston and Maine

by Peter A. Albin, P.E.*

1.0 INTRODUCTION

CAR DISTRIBUTION has been defined in the literature as, "...the process of controlling the flow of empty cars from the time they are unloaded until they are placed for the next load or delivered off-line. In times of heavy demand, the aim is to minimize car time to fill orders, subject to reasonable cost constraint. When cars are in surplus, the aim is to fill all orders while minimizing cost of railroad operations and car ownership...."

Implicit in this definition are four basic concepts: (1) determination of projected car supply and demand; (2) the matching of car surpluses and shortages; (3) the assignment of specific cars to orders; and (4) controlling the movement of empty cars to proper destinations.

Many of the larger railroads have developed systems to address these concepts of car distribution. Some have only addressed individual portions and others have addressed all four in a comprehensive manner. Among the railroads that have invested in the development of a comprehensive centralized system are ConRail, Southern Pacific, and the Missouri Pacific; while the Southern has developed a comprehensive decentralized system. These systems were developed as an effective decision-making tool for each road. It was beyond the resources of the Boston and Maine to develop and implement a similar system.

This paper documents the efforts to develop and implement a computer-based decision system for the disposition and distribution of empty cars at the time of loaded interchange. On a small road with limited resources, such as the B&M, concessions to an interactive, fully automated system had to be made such that a timely viable product could be implemented with a reasonable development cost.

2.0 ORGANIZATION OF THE CAR UTILIZATION DEPARTMENT

The Car Utilization Department was

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organized as an independent department in February, 1979, in recognition by the B&M of the impact of the increasing car hire rates and the need to control equipment expense. Since the B&M is primarily a terminating carrier, the need was all the more critical. Prior to this reorganization the car utilization responsibilities were more limited and were included as a sub-function in the overall scope of the Transportation Department.

From its inception as an independent entity, the departmental responsibility has evolved to presently include the effective disposition of all empty equipment, as well as the overall management of all equipment on the railroad. Through the use of simple but effective aids, these functions are still being accomplished with a staff of two car distributors and supervisory personnel.

Prior to the implementation of automated systems the car distribution function was accomplished during first trick (0800-1630 hours) Monday through Friday with both car distributors communicating by telephone daily with field personnel and manually recording and disposing of all empty cars. At this time, the only car information available to the field personnel was physical inspection and the waybill data. The car distributors were dependent on the car being reported empty before disposition could be determined. While this system worked well without any major problems it was very labor intensive and difficult to monitor on a real-time basis. During this period a Telex link in the Department to the AAR was maintained and used for direct and real-time access to UMLER (Universal Machine Language Equipment Register) and Train II (Tele-Rail Automated Information Network). In addition to some existing summary reports, the Summer of 1980 brought the first major step to modernization, with the access to an on-line local computer using a CRT (Cathode Ray Tube) for UMLER inquiries (Train II is to follow later this year).

3.0 SYSTEM IMPLEMENTATION— PHASE I

The first phase of development of an automated car distribution function was focused on relieving the need for fre-

quent interaction between the car distributor and field forces. Past practice noted that if last minute problems were discovered and the car distributor telephone lines were busy, the car was released with field personnel giving the best disposition available, simply to move the car off-line as soon as possible using the standing order dispositions and the general instructions made available.

Phase I addressed this control problem directly. As part of the ongoing data collection process, interchange data is transmitted on a daily basis from a service bureau keeping the real time car data. This raw data is processed to create a single 142 character car record from multiple card field entries. In addition to the interchange data this record includes car identification, waybill data, and blocking information. Some data is numerically coded and other data is clear alphabetic.

The first step in the processing the data is selection from the daily interchange records of loaded cars destined for points on the B&M (terminations). Overhead traffic (loaded cars being transported over the B&M that neither originate or terminate on the railroad), local traffic and empty cars are not processed. These loaded terminations are then passed through a sorting algorithm based on the blocking codes of the car to identify which of the 29 field agencies is responsible for billing the car's empty disposition. Part of this process includes merging car data from the on-line UMLER records to include car hire information, restriction codes for the determination of the applicable Car Service Directive (CSD), and an STCC (Standard Transportation Commodity Code) conversion from numerical code to alphabetic description.

After further processing two reports were generated. The first report listed the cars moving to each destination agency and the second listed all cars received in interchange by car type. The agency report listed each car including car type and mechanical designation, waybill information pertinent to the disposition (destination city, consignee, and alphabetic commodity), as well as interchange data. Cars not listed in UMLER are specifically noted and require the field personnel to verify the car initial and number prior to receiving car distributor then supplements this data by the manual addition of the empty distribution procedures including routing instructions. Cars to be held on station or moved to a proximate station for reload are also noted. In addition, the B&M is a participating carrier in the AARs Clearinghouse experiment.

Therefore, appropriate consideration is given to the disposition of other participating carriers' equipment as defined by the Clearinghouse agreement (CSDE 9).

These two reports were produced daily and were available prior to 0700 hours following the day of interchange. With this procedure, all field personnel generally had the empty disposition of each car prior to its empty release, and in many instances prior to its loaded arrival at the terminating station. The agency report was produced on a two part form. The car distributors manually enter the disposition of each car with the carbon intact. After the dispositions are made the forms are separated with one copy going to each respective agency and the second copy being retained by the car distributors for reference.

The car type report is used by the car distributor to fill orders. If an agency or shipper requests a car type that cannot be filled from a local source, the car distributor is able to locate the closest suitable car and order it moved for reloading. As car hire rates are included as part of the car record, decisions can be made with full regard to the car hire costs as well as other relevant car information.

A significant result of the implementation of this system was the achievement of major productivity improvements. As the telephone interfacing by the car distributors was significantly reduced, it was then necessary to have only one car distributor available first trick (Monday through Saturday). Thus the effective hours of car distributor coverage were extended from 40 hours per week to 74 hours per week without any increase in labor costs. In addition the car distributors were able to spend their time performing other related functions previously being neglected.

4.0 SYSTEM IMPLEMENTATION— PHASE II

Upon final verification of this Phase I program and full implementation by field forces, the absolute changeover from the original manual system to the computer-based system was made. Subsequent to the implementation of Phase I, various changes to the original system were defined to enhance the usefulness of the report to field personnel and to assist the car distributors in their decision-making process.

In addition, the Phase II system was designed to automatically determine the empty disposition instructions for all cars and produce appropriate error messages for incomplete or contradictory data. Phase II also included in the system daily listings of all cars carrying

hazardous materials (STCC class "49") and all cars exceeding Plate "C" for use by other departments.

4.1 CAR DISTRIBUTION REPORTS

The actual data presented to the car distributor has also been enhanced (see Exhibits A1 and A2). For each car listed messages are produced for: plate dimension larger than "C," the cubic capacity of all general service ("GB") gondolas, hazardous commodities, and pool assignment descriptions.

The disposition of each car is determined in a sequential manner. The default disposition of any car is the appropriate off-line movement. First, each car is checked against a listing of "special orders." These special orders can identify any combination of car initial, car series number range or specific car number, AAR car type, car grade, STCC code, maximum car hire rate, and maximum number of cars to be handled per day. If a car is selected as fitting this special order criteria, agency specific instructions are issued. In addition, generic classes of cars can be selected by using range specifications for series, car type, car grade, and commodity.

If a car is not selected by this special order process, the car is then checked for routine disposition. The first check uses the CSD number previously determined by the system. These AAR established directives give the handling requirements for various predefined car types, both assigned and unassigned. For an assigned car, the originating carrier is compared to the pool carrier as evidenced by the current UMLER pool registration. Conflicts in data are noted and result in the output of an error message for this car to alert the car distributor to check the car movements for any irregularities. Private cars are handled under Car Service Rule-9 (CSR-9). Next, disposition by Special Car Order (SCO) is established for applicable classes of cars and reporting marks. Finally, application of Rule-2 (CSR-2) is made. These rules and orders are part of a general agreement between most railroads concerning the orderly handling of cars.

For all of the above disposition classes specific instructions by agency can be issued. Error messages concerning incomplete or incompatible data supercede any established disposition and require car distributor intervention. While these distribution instructions are automatic, and used by the field forces as such, any automatic instruction generated by the system can be manually overridden by the car distributors.

Only one change was made to the car

type report in Phase II. This change was the inclusion of the capacity for all "GB" type equipment. Exhibits B1 and B2 are examples of car type reports.

4.2 SUPPLEMENTARY REPORTS

As noted above, the Phase II development process included additional reports beyond the scope of the initial application. As a result four additional reports are generated for internal administrative use.

One of these is a summary report of all cars received organized by billing road (see Exhibit C). This data in turn can be used to identify backhaul potential, reload candidates, or the feasibility of special interline agreements as allowed by the Staggers Act. Also, the types of cars being loaded to the B&M can be monitored on a daily basis. Average car hire for each group of cars is calculated to enable the tracking of equipment costs by originating road.

A second report summarizes all cars whose disposition was determined by a special order. This listing is useful for the control of the special orders and the follow-up of individual cars (see Exhibit D). In addition, this report produces one of the key supply elements in focusing on the balance between car supply and demand.

A third report lists all cars carrying hazardous materials received in interchange (see Exhibit E). For each car the origin, destination, consignee, alphabetic commodity, and STCC code are provided as well as interchange and car-type data. Provision has been made in the report for the inclusion of DOT/AAR shipping container codes when this data becomes available in a suitable medium. This report, including all loaded cars received or delivered, is made available to the Safety Bureau each morning and facilitates the monitoring of hazardous commodity shipments.

The fourth supplementary report lists oversize cars (see Exhibit F). For this report, any car whose dimension exceed Plate "C" is listed. Each listed car shows the billing road, origin city, destination, consignee, interchange data, plate size, and the basic car identification data. This report is sent to the Transportation Department daily.

4.3 FIELD IMPLEMENTATION

All of these new reports were fully implemented in early 1981 after brief field trials. The expected result of minimal intervention by the car distributor and further relief of manual efforts was reached after a brief period. Due to the reliance of the program on nominally

PAA - 1

DATE 05/31/81

360

DISPOSITION FOR CARS TERMINATING AT AYER, MA AGENCY

CAR INIT NUMBER	AAR TYPE	MECH DESG	CSD NUM	CAR HRLY GDE RATE	DESTINATION	CONSIGNEE	COMMODITY	INTERCHANGE ROAD LOC	DISPOSITION
BM 3347	A230	XL	145	A \$0.83	FORVILLAG MA	HARPERROW	PAPER PRINTING	MEC PORT BAR POUL AGENT BAR	REV RTE TO PT OF ORIGIN VIA UN-JCT NOR MAINE JCT ME
RBOX 39753	B208	XM		PRIV A \$0.53	LITTLETON MA	NEWENGAPP	PALLETS, SHPN	CR RUTJ	HOLD STORAGE - DO NOT LOAD
BM 78418	B208	XM		\$0.37	AYER	MA ATLINDUST	INSG PLSTC	CR RUTJ	AGENT GROVETON FOR LOADING
SP 244653	B209	XM		\$0.42	AYER	MA LUMBERMAN	PLYWOOD	DH MCV	DM-MECHANICVILLE DH SCO-90
NW 420088	V691	FA	145	\$0.41	AYER	MA NUCARCARR	AUTOS PASSENGER	DH MCV	REV RTE TO PT OF ORIGIN VIA UN-JCT POUL FORD RELOAD PROJECT VARIOUS
** OVERSIZE CAR -- PLATE F **									
NW 420088	V691	FA	145	\$0.41	AYER	MA NUCARCARR	AUTOS PASSENGER	DH MCV	REV RTE TO PT OF ORIGIN VIA UN-JCT POUL FORD RELOAD PROJECT VARIOUS
** OVERSIZE CAR -- PLATE F **									
UPFE 452416	R210	RPL	150	\$0.56	AYER	MA HARBROWER	POTATOES FRZN	CP WLSRV	RET TO AGT, DEL ROAD AT DN-JCT
SOU 531186	A230	XL	145	\$0.64	WGRUTON	MA HOLLINVD	WOODPULP	DH MCV SOU POUL	REV RTE TO PT OF ORIGIN VIA UN-JCT BUCKEYE CELLULOSE FOLEY FL

TRANSPORTATION RESEARCH FORUM

EXHIBIT A-1

edited field entered data, certain problems in distribution arose due to data errors and had to be corrected manually. In actuality, the only manual order changes being made resulted from data errors and the filing of short-notice orders.

An evaluation of these errors was made and continuous problem areas were "hard" coded to result in proper car dispositions for either the correct or incorrect data. After these changes were made, only normal maintenance of the program has been required to account for the restructuring of agency responsibilities.

A significant indirect result of the implementation of this new system is the initiation of efforts to capture supply data. Efforts are underway to estimate demand by loading area and car type through a computer program. When this data is successfully captured an analysis program will be developed to match the supply of terminating cars and empty receipts with loadings by area based on recent trends.

As car hire costs increase due to inflation and other factors, the requirement for monitoring on line terminations becomes more important. Through the use of the summary report generated by the system it is possible to evaluate the impact of inbound traffic from various roads and determine traffic patterns for potential backhaul programs. The data produced by this system has created a timely resource for the Car Utilization Department to access in the evaluation of any planned operating changes, including an accurate determination of the impacts of any changes made. In addition, these reports being provided to other departments are resulting in significant improvements in car control and information availability.

Most importantly, these new reports allow the car distributors to do what they are best equipped to do — make decisions and perform tasks that normally were outside the time constraints of their prescribed activities. With all terminating cars being automatically processed for the correct disposition, the car distributor's role has become one of policy evaluation, car supply monitoring, and exception handling, instead of the daily routine disposition of cars.

5.0 CONCLUSIONS

Through the use of a simple but effective automated car distribution system a direct increase in labor productivity has been realized. This productivity increase has itself lead to more positive control by the Department on the disposition of empty cars. This system,

however, only addresses one aspect of car distribution, car supply. Further efforts both manual and automated, are ongoing and the additional information provided by the system will be a foundation for future phases.

While this system was being developed, an ongoing major effort to fully capture car movement data is nearing conclusion. It is anticipated that the information gathered by this car movement system will complement the existing data such that supply and demand can be measured on a daily basis, and local surpluses and shortages can be balanced effectively with a minimum of manual effort. This increased data-capture capability should also allow local traffic to be included in the car distribution reports.

With the present system, the automatic distribution of cars for disposition other than off-line is restricted to those shippers or agencies with a constant or predictable demand for specific car types. Automated procedures are being developed to investigate trends in supply and demand on a historical basis. These data will then be analyzed to make adjustments in the demand requirements presently in effect.

As the B&M's use of the computer becomes more decentralized and on-line terminals are moved into the field, further technological enhancements to this system can be developed. One such enhancement is the production of an empty car waybill based on the automated disposition. With field stations having both CRTs and remote printers, it is possible for the empty waybills to be computer generated and printed locally on a batch basis each day, or individually as required by the field personnel. While the implementation of such a system is beyond the near term goals of the railroad as the level of computer sophistication grows many enhancements like this will be implemented.

Through the use of this program the Car Utilization Department has dramatically altered car distribution on the Boston and Maine. A significant first step has been taken to move from an environment of blanket disposition orders and exception handling to that of positive control and anticipatory planning for predictable situations. The underlying tenet of this effort, and the corporation generally, is just like the little engine. The attitude that must prevail to go up the mountain and over to the other side is, "I think I can!"

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PAA - 1

DATE 05/31/81

DISPOSITION FOR CARS TERMINATING AT <u>E DEERFIELD, MA</u> AGENCY													
CAR	AAR	MECH	CSD	CAR	HRLY	INTERCHANGE		DISPOSITION					
INIT NUMBER	TYPE	DESG	NUM	GDE	RATE	DESTINATION	CONSIGNEE	COMMODITY	BUAD	LOC			
SDU	521007	B207	XM		\$0.13	SHEFALLS MA	KENDALL	COTTON SWEEPING	OH	MCV	BM-MECHANICVILLE DH	SCO-90	
CN	575648	B107	XM		\$0.10	CHARLEMON MA	DEESPECIA	WOODPULP	CV	WRIJC	BM-WHITE RIVER JCT CV	RULE-2	
PC	598724	G412	GB		\$0.31	SDEERFIEL MA	PIDVALSTE	REINFCMNT RODS	CR	ROTTJ	KRAMER -GREENFIELD MASS.		
**CUBIC CAPACITY = 3317													
MP	715992	L153	LO	435A	\$0.24	BERNARDST MA	AGWAY	GRAIN,SPENT	DH	MCV	REV RTE TO PT OF ORIGIN VIA DN-JCT		
									MP	POOL AGENT MP	ATCHISON	KS	
HAZARDOUS COMMODITY STCC CODE = 2082330													

EXHIBIT A-2

PAA - 2

DATE 05/31/81

LISTING OF ALL GB CARS RECEIVED

CAR INIT NUMBER	AAR TYPE	MECH DESIG	GSD NUM	CAR GDE	HRLY RATE	DESTINATION	CONSIGNEE	COMMODITY	INTERCHANGE			DISPOSITION	
									ROAD	LOC	DATE		
MEC	1104	G312 GB			\$0.50	EVERETT MA	PRONEWENG	SCRAP I OR S	MEC	PORT	05/30	BM-PORTLAND MEC	RULE-2
		CUBIC CAPACITY=			2244								
MEC	1147	G312 GB			\$0.50	EVERETT MA	PRONEWENG	SCRAP I OR S	MEC	PORT	05/30	BM-PORTLAND MEC	RULE-2
		CUBIC CAPACITY=			2244								
PC	551902	G312 GB			\$0.13	PORTLAND ME	AMEHOIDER	BARS, IORS, NEC	DH	MCV	05/30	BM-MECHANICVILLE DH	RULE-2
		CUBIC CAPACITY=			1828								
NW	312331	G412 GB			\$0.14	SDEERFIEL MA	PIDVALSTE	REINFCMNT RODS	CR	ROTTJ	05/30	BM-WELLS RIVER CP	SCO-100
		CUBIC CAPACITY=			1779								
PC	598724	G412 GB			\$0.31	SDEERFIEL MA	PIDVALSTE	REINFCMNT RODS	CR	ROTTJ	05/30	KRAMER - GREENFIELD MASS.	
		CUBIC CAPACITY=			3317								
PC	597973	G412 GB			\$0.24	WATERTOWN MA	BARSTEEL	SLEEVES STL	CR	ROTTJ	05/30	CALL CAR DISTRIBUTOR WHEN EMPTY	
		CUBIC CAPACITY=			3200								
PC	598024	G412 GB			\$0.24	WATERTOWN MA	BARSTEEL	REINFCMNT RODS	CR	ROTTJ	05/30	CALL CAR DISTRIBUTOR WHEN EMPTY	
		CUBIC CAPACITY=			3200								
PC	598873	G412 GB			\$0.32	WATERTOWN MA	BARSTEEL	REINFCMNT RODS	CR	ROTTJ	05/30	CALL CAR DISTRIBUTOR WHEN EMPTY	
		CUBIC CAPACITY=			2797								
EL	15664	G432 GB			\$0.22	WATERTOWN MA	BARSTEEL	REINFCMNT RODS	CR	ROTTJ	05/30	BM-RUTTERDAM JCT CR	RULE-2
		CUBIC CAPACITY=			1800								

EXHIBIT B-1

DATE 05/31/81

LISTING OF ALL XM CARS RECEIVED

CAR	AAR	MECH	CSD	CAR	HRLY	INIT	NUMBER	TYPE	DESIG	NUM	GDE	RATE	DESTINATION	CONSIGNEE	COMMODITY	ROAD	INTERCHANGE	LOC	DATE	DISPOSITION	
MEC	30044	B208	XM									\$0.36	GROVETON	NH	GROPAPER	WOODPULP	MEC	WHIFO	05/30	BM-WHITEFIELD MEC	RULE-2
MEC	31111	B208	XM									\$0.50	GROVETON	NH	GROPAPER	WOODPULP	MEC	WHIFO	05/30	BM-WHITEFIELD MEC	RULE-2
MEC	31582	B208	XM									\$0.59	GROVETON	NH	GROPAPER	WOODPULP	MEC	WHIFO	05/30	BM-WHITEFIELD MEC	RULE-2
MEC	31634	B208	XM									\$0.59	GROVETON	NH	GROPAPER	2611335*****	MEC	WHIFO	05/30	BM-WHITEFIELD MEC	RULE-2
MEC	31688	B208	XM									\$0.59	GROVETON	NH	GROPAPER	WOODPULP	MEC	WHIFO	05/30	BM-WHITEFIELD MEC	RULE-2
MEC	31974	B208	XM									\$0.87	GROVETON	NH	GROPAPER	WOODPULP	MEC	WHIFO	05/30	BM-WHITEFIELD MEC	RULE-2
MEC	31149	B208	XM									\$0.50	PORTLAND	ME	CMRICE	PAP TISSUE, MXCL	CR	ROITJ	05/30	BM-PORTLAND MEC	RULE-2
MEC	32091	B208	XM									\$0.87	BOSTON	MA	BOSGLOBE	PAPER GRND WOOD	MEC	PORT	05/30	BM-PORTLAND MEC	RULE-2
MEC	32120	B208	XM									\$0.87	CAMBRIDGE	MA	BOSGLOBE	PAPER GRND WOOD	MEC	PORT	05/30	BM-PORTLAND MEC	RULE-2
MILW	52654	B208	XM									\$0.32	MERRIMACK	NH	NASHUA	2611345*****	CR	ROITJ	05/30	BM-PORTLAND MEC	RULE-2
MP	365971	B208	XM									\$0.33	ERVING	MA	ERVAPAPER	4611100*****	DM	MCV	05/30	BM-ROTTJERDAM JCT CR	SCO-90
MTW	4429	B208	XM									\$0.74	WAKEFIELD	MA	CONAMERIC	PULPBOARD NEC	DM	MCV	05/30	BM-ROTTJERDAM JCT CR	SCO-90
NDM	101460	B208	XM									\$0.59	MILFALLS	MA	MILFALPAP	COTTON LINTERS	CR	ROITJ	05/30	BM-ROTTJERDAM JCT CR	SCO-90
RBOX	39753	B208	XM						PRIV	A		\$0.53	LITTLETON	MA	NEWENGAPP	PALLETS, SHPN	CR	ROITJ	05/30	RET TO AGT, DEL RUAD AT ON-JCT	
RBOX	43624	B208	XM						PRIV	A		\$0.53	WINCHENDO	MA	NEWENGLAN	PULPBOARD NEC	DM	MCV	05/30	HOLD STORAGE - DU NOT LOAD	
RBOX	20577	B208	XM						PRIV	A		\$0.53	PORTLAND	ME	WMGUDOMAN	SCRAP PAPER	CR	SPGFD	05/30	AGENT GROVETON FUR LOADING	
SCL	25682	B208	XM									\$0.42	WINCHENDO	MA	NEWENGLAN	PULPBOARD NEC	DM	MCV	05/30	RELOAD OR CALL CAR DISTRIBUTOR	
SCL	24654	B208	XM									\$0.37	LAWRENCE	MA	FRUSALAD	BOTTLES, GLASS	CR	ROITJ	05/30	BM-MECHANICVILLE OH	SCO-90
SM	3014	B208	XM									\$0.85	NASHUA	NH	NASHUA	SEALING TAPE	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
SM	9071	B208	XM									\$0.89	NASHUA	NH	NASHUA	BAGS PAPER NEC	DM	MCV	05/30	BM-SPRINGFIELD CR	SCO-90
SOU	532010	B208	XM									\$0.93	FITCHBURG	MA	JAMRIVFIT	WOODPULP	DM	MCV	05/30	BM-SPRINGFIELD CR	SCO-90
SOU	528394	B208	XM									\$0.54	GARDNER	MA	MEACONTAI	PULPBOARD NEC	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
SOU	529092	B208	XM									\$0.54	HOLYOKE	MA	HAZEN	PULPBOARD NEC	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
SOU	530117	B208	XM									\$0.56	CLELSEA	MA	LEVERTT	PNUT, SHLD, NSLTD	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
TASD	77213	B208	XM									\$0.62	BRADFORD	MA	HAVPAPBOA	SCRAP PAPER	CR	SPGFD	05/30	BM-MECHANICVILLE OH	SCO-90
VSD	6247	B208	XM									\$0.66	CHICOPEE	MA	NEWENGUN	PULPBOARD NEC	DM	MCV	05/30	BM-SPRINGFIELD CR	SCO-90
ABOX	50216	B209	XM						PRIV	A		\$0.66	SPORTLAND	ME	HANNAFORD	CHRL BRIQUETTES	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
ADN	9105	B209	XM									\$0.73	MANCHESTE	NH	GEOPACIFI	UOARDS, SAWDUST	DM	MCV	05/30	RELOAD OR CALL CAR DISTRIBUTOR	
ADN	9138	B209	XM									\$0.73	MANCHESTE	NH	GEOPACIFI	BOARDS, SAWDUST	DM	MCV	05/30	BM-PORTLAND MEC	
ADN	9168	B209	XM									\$0.73	MEDFORD	ME	CONCORAHE	PULPBOARD NEC	DM	MCV	05/30	BM-PORTLAND MEC	
ADN	9787	B209	XM									\$0.99	SOMERVILL	MA	AKRPAPERS	PAP. TISSUE, MXCL	DM	MCV	05/30	BM-PORTLAND MEC	
AHW	4024	B209	XM									\$0.67	WATERTOWN	MA	AMPFORPRO	PLYWOOD	CR	ROITJ	05/30	BM-ROTTJERDAM JCT CR	SCO-90
ATSF	47543	B209	XM									\$0.34	PORTSMOUT	NH	GOLBONBUI	PLASTER CALCIND	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
BN	232000	B209	XM									\$0.24	KEENE	NH	WETTERAU	4917312*****	CR	ROITJ	05/30	BM-MECHANICVILLE OH	SCO-90
BN	240708	B209	XM									\$0.19	TEWKSBURY	MA	PLYTECHNO	PLYWOOD	CR	ROITJ	05/30	BM-ROTTJERDAM JCT CR	SCO-90
BN	243852	B209	XM									\$0.19	MANCHESTE	NH	AIFP	PLYWOOD	DM	MCV	05/30	BM-ROTTJERDAM JCT CR	SCO-90
BN	234549	B209	XM									\$0.23	SCOTIA	NY	HUSKY	BRIQUETTES CHARG	DM	MCV	05/30	BM-ROTTJERDAM JCT CR	SCO-90
BN	247239	B209	XM									\$0.28	SCOTIA	NY	HUSKY	BRIQUETTES CHARG	DM	MCV	05/30	BM-ROTTJERDAM JCT CR	SCO-90
BN	240304	B209	XM									\$0.20	SPORTLAND	ME	FUXGINN	TOWELS PAPER	CR	ROITJ	05/30	BM-ROTTJERDAM JCT CR	SCO-90
CN	557582	B209	XM									\$0.42	WOBURN	MA	FURLERDY	LBR TIMBER	CV	WLRIJC	05/30	BM-WHITE RIVER JCT CV	RULE-2
CO	462334	B209	XM									\$0.22	ERVING	MA	ERVAPMIL	SCRAP PAPER	CP	WLSRV	05/29	BM-WELLS RIVER CP	
NW	701819	B209	XM									\$0.22	BOSTON	MA	ALLPLYWOOD	BOARDS, SAWDUST	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
SCL	40577	B209	XM									\$0.37	MTTOM	MA	PACGORAME	PULPBOARD NEC	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
SP	244653	B209	XM									\$0.42	AYER	MA	LUMBERMAN	PLYWOOD	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
SSW	61868	B209	XM									\$0.34	ROCHESTER	NH	RIDFURPRO	PLYWOOD	CR	ROITJ	05/30	BM-ROTTJERDAM JCT CR	SCO-90
UP	301044	B209	XM									\$0.37	LOWJUNCTI	MA	FURLUMBER	LBR TIMBER	DM	MCV	05/30	BM-MECHANICVILLE OH	SCO-90
ALM	1015	B308	XM									\$0.78	MANCHESTE	NH	CUNDIVINT	PULPBOARD NEC	DM	ACV	05/30	BM-ROTTJERDAM JCT CR	SCO-90
ALM	1186	B308	XM									\$0.87	MANCHESTE	NH	CUNDIVINT	PULPBOARD NEC	DM	ACV	05/30	BM-ROTTJERDAM JCT CR	SCO-90
MP	376794	B309	XM									\$0.81	CHARLESTO	MA	ALLPLYWCU	PLYWOOD	CP	WLSRV	05/29	BM-ROTTJERDAM JCT CR	SCO-90

EXHIBIT B-2

SUMMARY LISTING OF CARS BY BILLING ROAD

CAR INIT NUMBER	AAR TYPE	MECH DESIG	CSD NUM	CAR HRLY GDE RATE	DESTINATION	CONSIGNEE	COMMODITY	ROAD	INTERCHANGE LOG	DATE	
CNIS 408078	B208	XM		\$0.38	MANCHESTER NH	UNILEADER	NEWSPRINT PAPER	CV	WRIJC 05/30	BM-WHITE RIVER JCT CV	RULE-2
CN 557582	B209	XM		\$0.42	WOBURN MA	FORLEROY	LBR TIMBER	CV	WRIJC 05/30	BM-WHITE RIVER JCT CV	RULE-2
CVC 402286	B207	XM		\$0.46	HOLYOKE MA	DOHJONCOM	NEWSPRINT PAPER	CV	WRIJC 05/30	BM-WHITE RIVER JCT CV	RULE-2
AVERAGE RATE FOR 14 CN PER DIEM CARS IS \$0.21											
USLX 20760	L153	LD	PRIV	\$0.00	MERRIMACK NH	ANHBUSCH	MALT	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
CHEX 189	L254	LD	PRIV	\$0.00	GARDNER MA	BERPACKAG	POLYETHYLENE	CP	WLSRV 05/29	CSR 9 (SHPR INSTR OK REV ROUTE)	
CHEX 227	L254	LD	PRIV	\$0.00	WORCHESTER MA	ATOP	POLYETHYLENE	DH	MCV 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
GARX 56028	R200	RB	PRIV	\$0.00	SPORTLAND ME	HANNAFORD	FLOUR, WHEAT	DH	MCV 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
CNW 69727	L451	LD	435A	\$0.23	BERLIN NH	JAMRIVER	CORN STARCH	DH	MCV 05/30	REV RTE TO PT OF ORIGIN VIA ON-JCT	
CNW 154411	B208	XM		\$0.39	WOBURN MA	CNEDISTRI	BROILERS	CR	ROTTJ 05/30	BM-ROTTERDAM JCT CR	SCO-90
AVERAGE RATE FOR 2 CNW PER DIEM CARS IS \$0.31											
CP 143210	B107	XM		\$0.12	FITCHBURG MA	UNICOOFAR	2014210*****	CP	WLSRV 05/29	BM-WELLS RIVER CP	RULE-2
BO 483113	A230	XL	150	\$0.29	LAWRENCE MA	BAREGGDIS	EGG CASE FILLER	CP	WLSRV 05/29	RET TO AGT, DEL ROAD AT ON-JCT	
AVERAGE RATE FOR 2 CO PER DIEM CARS IS \$0.20											
CP 21980	B105	XM		\$0.11	FITCHBURG MA	UNIFARCOO	BREWERS GRAINS	CP	WLSRV 05/29	BM-WELLS RIVER CP	RULE-2
CP 52829	B106	XM		\$0.11	BERLIN NH	JAMRIVER	4611100*****	DH	MCV 05/30	BM-WELLS RIVER CP	RULE-2
CP 385954	L152	LD	435A	\$0.22	WORCESTER MA	NORTON	SILICON CARBIDE	CP	WLSRV 05/29	REV RTE TO PT OF ORIGIN VIA ON-JCT	
CP 382522	L152	LD	435A	\$0.27	FITCHBURG MA	UNICOOFAR	GLUTEN FEED	CP	WLSRV 05/29	REV RTE TO PT OF ORIGIN VIA ON-JCT	
BM 78530	B208	XM		\$0.37	FARMINGTU NH	DAVYRUBBER	NRVM,ECP,RIRV	CP	WLSRV 05/29	TO LOAD BY DAVIOSUN RUBBER	
BM 70008	A200	XP	145	\$0.37	FARMINGTU NH	DAVYRUBBER	NRVM,ECP,RIRV	CP	WLSRV 05/29	TO LOAD BY DAVIOSUN RUBBER	
BM 70044	A200	XP	145	\$0.37	FARMINGTU NH	DAVYRUBBER	NRVM,ECP,RIRV	CP	WLSRV 05/29	TO LOAD BY DAVIOSUN RUBBER	
BM 5228	L152	LD	435A	\$0.84	ECAMBRIDG MA	NORCEMENT	HYDRAULIC CNT	CP	WLSRV 05/29	REV RTE TO PT OF ORIGIN VIA ON-JCT	
BM 5261	L152	LD	435A	\$0.84	ECAMBRIDG MA	NORCEMENT	HYDRAULIC CNT	CP	WLSRV 05/29	REV RTE TO PT OF ORIGIN VIA ON-JCT	
BM 5282	L152	LD	435A	\$0.84	ECAMBRIDG MA	NORCEMENT	HYDRAULIC CNT	CP	WLSRV 05/29	REV RTE TO PT OF ORIGIN VIA ON-JCT	
BM 5295	L152	LD	435A	\$0.84	ECAMBRIDG MA	NORCEMENT	HYDRAULIC CNT	CP	WLSRV 05/29	REV RTE TO PT OF ORIGIN VIA ON-JCT	
AVERAGE RATE FOR 11 CP PER DIEM CARS IS \$0.47											
CRA 6200				\$0.00	MTTOM MA	PACCAMRIC	PULPBWARD NEC	DH	MCV 05/30	VERIFY CAR NUMB/CALL CAR DISTRIB	
ACFX 62800	L152	LD	PRIV	\$0.00	NBILLERIC MA	CARGILL	ROCK SALT	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
NAHX 486003	L153	LD	PRIV	\$0.00	NBILLERIC MA	CARGILL	ROCK SALT	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
NAHX 486015	L153	LD	PRIV	\$0.00	NBILLERIC MA	CARGILL	ROCK SALT	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
PTLX 33018	L153	LD	PRIV	\$0.00	NBILLERIC MA	CARGILL	ROCK SALT	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
STLX 1268	L153	LD	PRIV	\$0.00	CONCORD NH	HKWEBSTER	GLUTEN FEED	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
TLOX 3989	L153	LD	PRIV	\$0.00	WILMINTON MA	OLIN	UREA, NEC	CK	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
TLOX 7433	L153	LD	PRIV	\$0.00	NBILLERIC MA	CARGILL	ROCK SALT	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
TLOX 7502	L153	LD	PRIV	\$0.00	NBILLERIC MA	CARGILL	ROCK SALT	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
TLOX 7513	L153	LD	PRIV	\$0.00	NBILLERIC MA	CARGILL	ROCK SALT	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
TLOX 7537	L153	LD	PRIV	\$0.00	NBILLERIC MA	CARGILL	ROCK SALT	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	
GACX 55457	L451	LD	PRIV	\$0.00	LOWELL MA	PRIMACARD	SEMOLINA FLR MA	CR	ROTTJ 05/30	CSR 9 (SHPR INSTR OK REV ROUTE)	

EXHIBIT C

DATE 05/31/81

SUMMARY OF CARS ASSIGNED BY SPECIAL ORDER

CAR INIT NUMBER	AAR TYPE	MECH DESG	CSD NM	CAR HRLY GDE RATE	DESTINATION	CONSIGNEE	COMMODITY	INTERCHANGE BOARD LOC	DISPOSITION
CAR SERIES BM ***** TO *****	TYPE=****	GRADE=*	COMMODITY=4211***	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 3			
BM 78530 B208 XM			\$0.37 FARMINGTO NH	DAVRUBBER	NRVM,ECP,RIRV	CP	MLSRV	TO LOAD BY DAVIDSON RUBBER	
BM 70008 A200 XP	145		\$0.37 FARMINGTO NH	DAVRUBBER	NRVM,ECP,RIRV	CP	MLSRV	TO LOAD BY DAVIDSON RUBBER	
BM 70044 A200 XP	145		\$0.37 FARMINGTO NH	DAVRUBBER	NRVM,ECP,RIRV	CP	MLSRV	TO LOAD BY DAVIDSON RUBBER	
CAR SERIES SSW ***** TO *****	TYPE=R206	GRADE=*	COMMODITY=*****	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 1			
SSW 23784 R206 RBL	150		\$0.61 WOBURN MA	TIGWARHOU	2099111*****	OH	MCV	CALL CAR DISTRIBUTOR WHEN EMPTY	
CAR SERIES ATSF ***** TO *****	TYPE=A240	GRADE=*	COMMODITY=*****	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 2			
ATSF 520209 A240 XLI	150		\$0.38 LAWRENCE MA	BAYSTAGAS	SODIUM BORATE	OH	MCV	CALL CAR DISTRIBUTOR WHEN EMPTY	
ATSF 520652 A240 XLI	150		\$0.40 BOSTON MA	ITTERN	MEAT FISH AURP	CP	MLSRV	CALL CAR DISTRIBUTOR WHEN EMPTY	
CAR SERIES **** ***** TO *****	TYPE=G***	GRADE=*	COMMODITY=*****	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 4			
PC 597973 G412 GB			\$0.24 WATERTOWN MA	BARSTEEL	SLEEVES STL	CR	ROTTJ	CALL CAR DISTRIBUTOR WHEN EMPTY	
PC 598024 G412 GB			\$0.24 WATERTOWN MA	BARSTEEL	REINFCMNT ROUS	CR	ROTTJ	CALL CAR DISTRIBUTOR WHEN EMPTY	
PC 598724 G412 GB			\$0.31 SDEERFIEL MA	PIOVALSTE	REINFCMNT ROUS	CR	ROTTJ	KRAMER -GREENFIELD MASS.	
PC 598873 G412 GB			\$0.32 WATERTOWN MA	BARSTEEL	REINFCMNT ROUS	CR	ROTTJ	CALL CAR DISTRIBUTOR WHEN EMPTY	
CAR SERIES BM 78000 TO 78999	TYPE=****	GRADE=*	COMMODITY=26*****	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 1			
BM 78127 B208 XM			\$0.37 KEENE NH	KEEINDAP	TDI,NAP,PAP,STK	BMS	BERLN	AGENT BERLIN FOR LOADING	
CAR SERIES BM ***** TO *****	TYPE=B2**	GRADE=*	COMMODITY=30*****	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 1			
BM 78418 B208 XM			\$0.37 AYER MA	ATLINDUST	INSG PLSTC	CR	ROTTJ	AGENT GROVETON FOR LOADING	
CAR SERIES BM ***** TO *****	TYPE=B***	GRADE=*	COMMODITY=*****	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 1			
BM 78024 B208 XM			\$0.37 PORTLAND ME	WNGOODMAN	SCRAP PAPER	CR	SPGFD	CLEN -EAST DEERFIELD	
CAR SERIES ADM 9000 TO 9399	TYPE=****	GRADE=*	COMMODITY=*****	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 3			
ADM 9105 B209 XM			\$0.73 MANCHESTE NH	GEOPACIFI	BOARDS,SAWDUST	OH	MCV	BM-PORTLAND MEC	
ADM 9138 B209 XM			\$0.73 MANCHESTE NH	GEOPACIFI	BOARDS,SAWDUST	OH	MCV	BM-PORTLAND MEC	
ADM 9168 B209 XM			\$0.73 MEDFORD ME	CONCORAME	PULPBOARD NEC	OH	MCV	BM-PORTLAND MEC	
CAR SERIES RBOX ***** TO *****	TYPE=B2**	GRADE=*	COMMODITY=26*****	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 1			
RBOX 43624 B208 XM			PRIV A \$0.53 WINCHENDO MA	NEWENGLAN	PULPBOARD NEC	OH	MCV	AGENT GROVETON FOR LOADING	
CAR SERIES RBOX ***** TO *****	TYPE=B2**	GRADE=*	COMMODITY=4024***	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 1			
RBOX 20577 B208 XM			PRIV A \$0.53 PORTLAND ME	WNGOODMAN	SCRAP PAPER	CR	SPGFD	RELOAD OR CALL CAR DISTRIBUTOR	
CAR SERIES ABOX ***** TO *****	TYPE=B2**	GRADE=*	COMMODITY=24*****	MAX P/D RATE=\$999.99	MAXIMUM COUNT=999	TOTAL COUNT= 1			

EXHIBIT D

AUTOMATION OF THE CAR DISTRIBUTION FUNCTION

367

FAA - 4

DATE 05/31/81

LISTING OF ALL CARS CARRYING HAZARDOUS MATERIALS

CAR	AAR	HLRY	MILG	CONTAINER	SPECS	ORIGIN	DESTINATION	WAYBILL	INTERCHANGE										
INIT NUMBER	TYPE	RATE	RATE	MAJ	DESC	CITY	ST	CITY	ST	CONSIGNEE	COMMODITY	SICC	ROAD	JCT	DATE	TIME			
GATX 32433	T051	\$0.00	\$0.30			EVERETT	MA	BERLIN	NH	RIVERCORP	4930030*****	4930030	BM	BERLN	05/28	2045			
UNPX 120413	L451	\$0.00	\$0.25			BUCKINGHA	PO	BERLIN	NH	JAMRIVER	4918723*****	4918723	BM	BERLN	05/28	2045			
ABOX 50216	B209	\$0.66	\$0.03			PARSON	WV	SPORTLAND	ME	HANNAFORD	CHRL BRIQUETTES	2499966	DH	MCV	05/30	0405			
BN 234549	B209	\$0.23	\$0.04			LEHIGH	ND	SCOTIA	NY	HUSKY	BRIQUETTS CHARC	2991128	DH	MCV	05/30	1425			
BN 247239	B209	\$0.28	\$0.04			LEHIGH	ND	SCOTIA	NY	HUSKY	BRIQUETTS CHARC	2991128	DH	MCV	05/30	1425			
CNW 4574	B206	\$0.13	\$0.03			OKDCREEK	WI	DERBY	CT	HYNITE	TANKAGE, CRUDE	2014488	DH	MCV	05/30	0405			
MP 265808	A330	\$0.38	\$0.05			MEMPHIS	TN	NASHUA	NH	BUCLAB	4936580*****	4936580	DH	MCV	05/30	1425			
MP 715992	L153	\$0.24	\$0.04			ATCHISON	KS	BERNARDST	MA	AGWAY	GRAIN, SPENT	2082330	DH	MCV	05/30	0405			
SSW 23784	R206	\$0.61	\$0.05			OAKLAND	CA	WUBURN	MA	TIGWARHOU	2099111*****	2099111	DH	MCV	05/30	1425			
WP 66143	A340	\$0.41	\$0.05			SANJOSE	CA	CONCORD	NH	NEWHAMSTA	WINES, NEC	2084120	DH	MCV	05/30	1425			
WP 66143	A340	\$0.41	\$0.05					CONCORD	NH		2044120*****	2044120	DH	MCV	05/30	1425			
WP 66143	A340	\$0.41	\$0.05					CONCORD	NH	NEWHAMSTA	WINES, NEC	2084120	DH	MCV	05/30	1425			
WP 66143	A340	\$0.41	\$0.05					CONCORD	NH		2044120*****	2044120	DH	MCV	05/30	1425			
CR 886444	L153	\$0.38	\$0.04					DETROIT			FRT RATE SHPMTS	4611110	BM	PORT	05/11	1700			
KCS 100889	A230	\$0.29	\$0.05					WOODLAND			FRT RATE SHPMTS	4611110	BM	PORT	05/19	0035			
KCS 106747	B209	\$0.34	\$0.04								4611111*****	4611111	BM	PORT	05/19	0035			
KCS 110914	B208	\$0.31	\$0.04					WOODLAND			FRT RATE SHPMTS	4611110	BM	PORT	05/19	0035			
PBNE 620	F313	\$0.48	\$0.04					KENNSUG			CONTAINERS	3491940	BM	PORT	05/12	1600			
PBNE 621	F313	\$0.48	\$0.04					KENNSUG			CONTAINERS	3491940	BM	PORT	05/12	1600			
PPGX 2338	T103	\$0.00	\$0.31					RUMFORD			4935240*****	4935240	BM	PORT	05/11	1000			
PRR 441741	G422	\$0.10	\$0.07					KENNSUG			CONTAINERS	3491940	BM	PORT	05/12	1600			
SPCX 54		\$0.00	\$0.00					FTHALIFRT			FRT RATE SHPMTS	4611110	BM	PORT	05/16	1600			
TTAX 992148	F077	\$0.44	\$0.06								4611111*****	4611111	BM	PORT	05/11	1000			
UTLX 82570	T389	\$0.00	\$0.40					OXFORD			PETRO GAS LQD	2912190	BM	PORT	05/10	0950			
WRNX 30087	T389	\$0.00	\$0.40			SELKIRK	NY	BUCKSPORT	ME	DEARIVGAS	4905752*****	4905752	BM	PORT	05/30	1320			
WRNX 30236	T389	\$0.00	\$0.40					LEWYDS			PETRG GAS LQD	2912190	BM	PORT	05/02	1600			
BN 232000	B209	\$0.24	\$0.04			SALME	MO	KEENE	NH	WETTERAU	4917312*****	4917312	CR	ROTTJ	05/30	1325			
GATX 10003	T106	\$0.00	\$0.40			FREEPORT	TX	ROTJUNCTI	NY	SCHCHEMIC	CHEMICALS, NEC	2899991	CR	ROTTJ	05/30	1325			
GATX 62985	T103	\$0.00	\$0.31			SCHENEDAT	NY	ROTJUNCTI	NY	SCHCHEMIC	GASES COMPRESO	2818890	CR	ROTTJ	05/30	1325			
GATX 96399	T389	\$0.00	\$0.40			WINSBUR	LA	ANDOVER	MA	GILLETTE	4905752*****	4905752	CR	ROTTJ	05/30	0300			
GCX 416023	T104	\$0.00	\$0.35			SOLVAY	NY	NASHUA	NH	WRGRACE	4935240*****	4935240	CR	ROTTJ	05/30	0300			
GOCX 84310	T389	\$0.00	\$0.40			SELKIRK	NY	HAMPDEN	ME	DEARIVLPG	4905752*****	4905752	CR	ROTTJ	05/30	0300			
HOKX 8019	T104	\$0.00	\$0.40			NIAFALLS	NY	RUMFORD	ME	BUICASPAP	4935240*****	4935240	CR	ROTTJ	05/30	0300			
HOKX 8102	T104	\$0.00	\$0.40			NIAFALLS	NY	WESTBROOK	ME	SUMARKEN	4935240*****	4935240	CR	ROTTJ	05/30	0300			
HOKX 8210	T104	\$0.00	\$0.40			NIAFALLS	NY	LINCOLN	ME	LINPULPAP	4935240*****	4935240	CR	ROTTJ	05/30	0300			
NATX 21586	T105	\$0.00	\$0.32			AVONDALE	LA	BEVERLY	MA	BEVLHETER	4907250*****	4907250	CR	ROTTJ	05/30	0300			
NATX 75246	T105	\$0.00	\$0.34			AVONDALE	LA	BEVERLY	MA	BEVCHETER	4907250*****	4907250	CR	ROTTJ	05/30	0300			
DLNX 21016	T104	\$0.00	\$0.40			NIAFALLS	NY	MERRIMACK	NH	NEWENGCHC	4935240*****	4935240	CR	ROTTJ	05/30	1325			
PPGX 3373	T104	\$0.00	\$0.40			BARUARTON	OH	MERRIMACK	NH	JONCHEMIL	4935240*****	4935240	CR	ROTTJ	05/30	1325			
TLOX 216083	T104	\$0.00	\$0.35			SOLVAY	NY	NASHUA	NH	WRGRACE	4935240*****	4935240	CR	ROTTJ	05/30	0300			
ACFX 19956	T389	\$0.00	\$0.40			SARNIA	ON	NORTHURU	MA	SUBPRUGAS	4905781*****	4905781	BM	SPGFD	05/30	1300			

EXHIBIT E

INTERCHANGE LISTING OF OVERSIZED CARS

CAR INIT NUMBER	AAR TYPE	MECH DESG	CSD CODE	BIL ROAD	ORIGIN CITY ST	DESTINATION CITY ST	CONSIGNEE	COMMODITY	INTERCHANGE ROAD JCT DATE TIME	PLATE SIZE
MOM 15030	L070	LC	145					4611111***** BM	PORT 05/12 1600	* PLATE F *
TTXX 800550	V691	FA	145			STTHOMAS	ON FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
TTXX 801740	V691	FA	145			STTHOMAS	ON FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
TTXX 850250	V691	FA	145	SOU	HAPEVILLE GA	AYER	MA NUCARCARR	AUTOS PASSENGER	UH MCV 05/30 0405	* PLATE F *
TTBX 911811	V592	FA	PRIV			NORFOLK	VA FORDMOTOR	***** BM	ROTTJ 05/30 1155	* PLATE F *
TTXX 850371	V691	FA	145			STTHOMAS	ON FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
TTXX 801841	V691	FA	PRIV	NW	FAIRLANE OH	AYER	ON NUCARCARR	AUTOS FREIGHT	UH MCV 05/30 1425	* PLATE E *
ATSF 84132	V681	FA	145			STTHOMAS	ON FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
TTBX 910662	V592	FA	PRIV			TAMPA	FL FURUMARKE	***** BM	MCV 05/30 0510	* PLATE F *
TTBX 913392	V592	FA	PRIV			LOUISVILL	KY FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
TTXX 850212	V691	FA	145	DTI	DEASTADET MI	AYER	MA NUCARCARR	AUTOS PASSENGER	UH MCV 05/30 0405	* PLATE F *
TTBX 910253	V592	FA	PRIV			LOUISVILL	KY FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
TTXX 801173	V691	FA	145			STTHOMAS	ON FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
KCS 110914	B208	XM				WOODLAND		FRT RATE SHPMTS	BM PORT 05/19 0035	* PLATE E *
SSM 28714	R206	RBL	150			BURNHAM		TIN CANS, ULD	BM PURT 05/20 1000	* PLATE F *
TTBX 966024	V592	FA	PRIV			LOUISVILL	KY FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
KCS 153354	A230	XL	145	KCS	WLAKCHARL LA	NLEONINST	MA UNIKARLEU	SYN PLSTC UTLOD	CP WLSRV 05/29 2355	* PLATE E *
MP 376794	B309	XM		BN	POSTFALLS ID	CHARLESTO	MA ALLPLYUOD	PLYWOOD	CP WLSRV 05/29 2355	* PLATE F *
UP 301044	B209	XM		UP	SEATTLE WA	LOWJUNCTI	MA FUKLUMBER	LBR TIMBER	UH MCV 05/30 1425	* PLATE E *
ALM 1015	B308	XM		ALM	BASTROP LA	MANCHESTE	NH CONDIVINT	PULPBOARD NEC	UH MCV 05/30 0405	* PLATE E *
ALM 1186	B308	XM		ATSF	BASTROP LA	MANCHESTE	NH CONDIVINT	PULPBOARD NEC	UH MCV 05/30 1425	* PLATE E *
CTTX 851757	V891	FA	PRIV			WIXOM	MI FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
KCS 106747	B209	XM				UNDERWOOD		4611111***** BM	PORT 05/19 0035	* PLATE F *
SSM 28747	R206	RBL	150			STTHOMAS	ON FORDMOTOR	2651149***** BM	PURK 05/07 1000	* PLATE F *
TTXX 908577	V691	FA	145			AYER	MA NUCARCARR	AUTOS PASSENGER	UH MCV 05/30 0510	* PLATE F *
TTXX 801697	V691	FA	145	NW	CHICAGO IL				MCV 05/30 1425	* PLATE F *
TTXX 909398	V691	FA	PRIV			STTHOMAS	ON FORDMOTOR	***** BM	MCV 05/30 0510	* PLATE F *
MP 375258	B309	XM		BN	VNEER LA	PURTLAND	NH PLYTECHNO	VENEER WOOD	CR ROTTJ 05/30 1325	* PLATE F *
MP 265808	A330	XL	165	MP	MEMPHIS TN	NASHUA	ME BULLAB	4936530***** BM	MCV 05/30 1425	* PLATE E *
NW 420088	V691	FA	145	DTI	DEASTADET MI	AYER	MA NUCARCARR	AUTOS PASSENGER	UH MCV 05/30 1425	* PLATE F *
NW 420088	V691	FA	145			AYER	MA NUCARCARR	AUTOS PASSENGER	UH MCV 05/30 1425	* PLATE F *
TTXX 801138	V691	FA	145	DTI	DEASTADET MI	AYER	MA NUCARCARR	AUTOS PASSENGER	UH MCV 05/30 1425	* PLATE F *
TTXX 801138	V691	FA	145			AYER	MA NUCARCARR	AUTOS PASSENGER	UH MCV 05/30 1425	* PLATE F *

EXHIBIT F

AUTOMATION OF THE CAR DISTRIBUTION FUNCTION