NEW YORK METROPOLITAN TRANSPORTATION COUNCIL

ONE WORLD TRADE CENTER ▼ SUITE 82 EAST ▼ NEW YORK ▼ NY ▼ 10048

Compendium of Freight Information

PHONE 212.938.3300 ▼ FAX 212.938.3295 ▼ BBS 212.938.4371

INTERNET WWW.DOT.STATE.NY.US/REG/NYMTC/COUNCIL.HTML

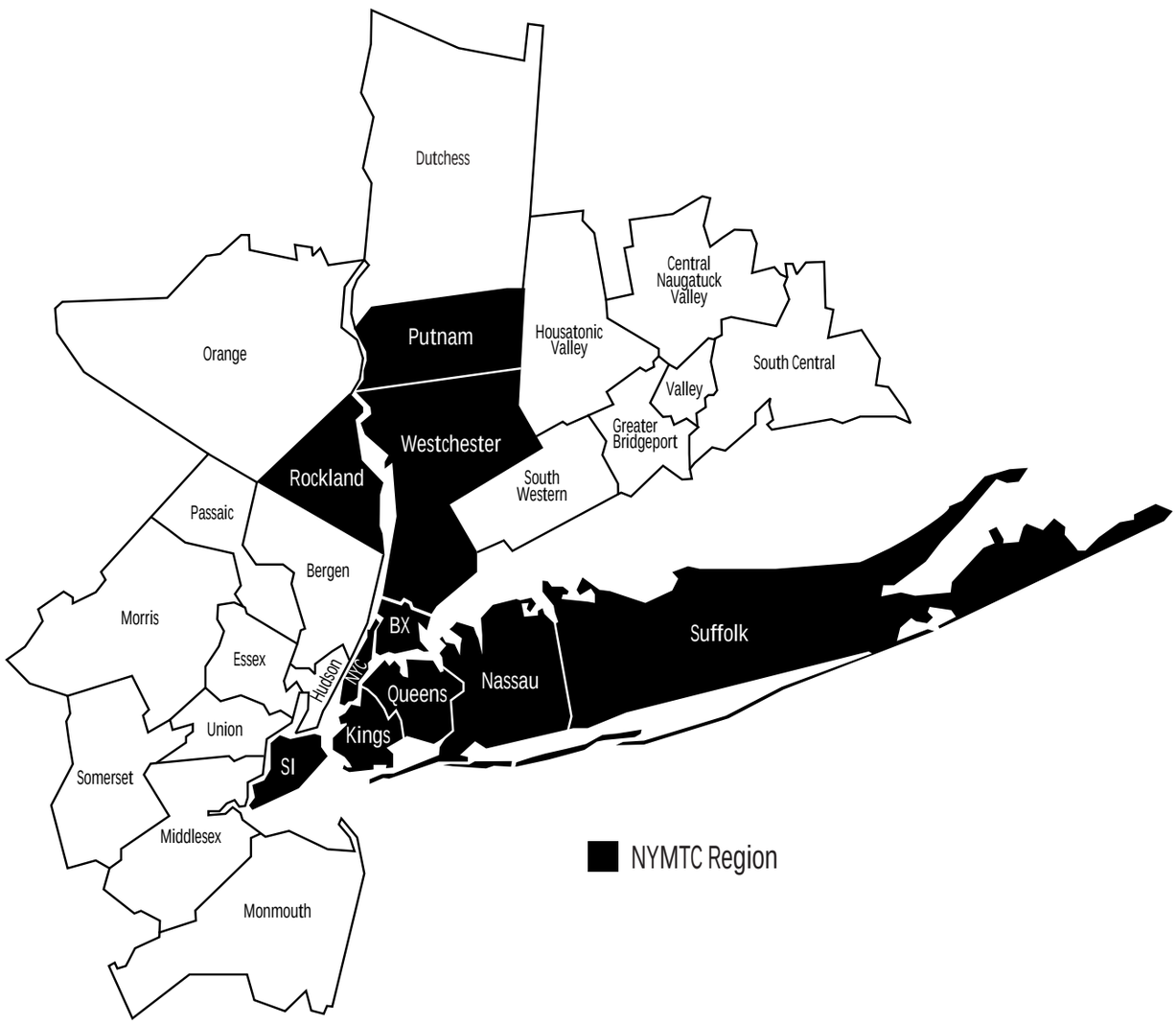
NOVEMBER, 1997

Compendium of Freight Information is a collection of Freight data for the New York metropolitan and surrounding regions that are disseminated in the interest of information sharing and public outreach. This document was prepared by Christina Adidjaja and Mary Hrabowska (Tel 212.938.3448/ 3375) under the supervision of Juliette E. Bergman of the Data Services Bureau of the New York Metropolitan Transportation Council Central Staff. This compendium was produced in partial fulfillment of project PT1277.801, *Data Collection and Analysis*, PT 1717.801, *Public Participation and Outreach*, and PT11A9.801, *Regional Transportation Plan*. This product does not constitute a standard guideline, nor does it reflect the view of the Federal Highway, the Transit Administration, or the Council members.

Table of Contents

New York Metropolitan Transportation Council

Tri-State Region



Overview

This Compendium has been prepared by the New York Metropolitan Transportation Council (NYMTC), a Metropolitan Planning Organization (MPO) in the New York downstate region, as a resource for members or the public who are interested in the movement of goods in the New York/Northern New Jersey metropolitan area. The information gathered here is intended as an overview of the region's important assets and the activity they generate. It also contains information on many aspects of the region's freight facilities and activities, and includes a list of recent publications and studies on freight issues in the region for those who want more detailed information.

Goods movement in the New York metropolitan area is an increasingly important issue as regional agencies and businesses struggle to deal with a growing list of challenges, including congestion, inadequate facilities, channel depth, and a multitude of logistical problems. These problems hinder the movement and delivery of goods and drive up the cost of doing business in this area. As mandated by the Intermodal Surface Transportation Efficiency Act (ISTEA) 1991, MPOs should consider freight issues in developing transportation plans and programs. Therefore, freight data is one of NYMTC's priorities in its data collection efforts. Through this compendium, NYMTC is disseminating information about the region's freight system, including descriptions of major truck, rail and port terminals and the volume of freight passing through them.

Information in this compendium was gathered from various sources, such as NYMTC's freight telephone survey to facilities' operators, American Trucking Association's publications, the Port Authority of New York and New Jersey, the U.S. Bureau of Census, and Reebie Associates, a private firm that collects and publishes freight data.

Freight transportation will continue to rise in the future for all modes (see freight forecast for Domestic Volume and Reebie Associates' forecast), including international freight, especially with the expansion of Pacific Rim Trade and the NAFTA agreements. Some other factors that could influence freight movement in the regions are the increasing interest in using the Suez Canal, the Conrail acquisition by CSX and Norfolk Southern, and the recent lease of the Long Island Rail Roads' freight service to the New York & Atlantic Railway.

In the U.S. and in the New York metropolitan region, trucks play a major role in freight transportation. Commercial trucks in the U.S. represent 10.8 percent of all registered motor vehicles. In 1996 truck transportation brought $362 billion in gross revenue, representing 78 percent of the nation's freight bill. In the North American international market, trucks carry 68 percent of all Canada-U.S. trade and 87 percent of all Mexico-U.S. trade. In 1994, U.S. general truck shipments amounted to 2,800 billion tons, representing 77 percent of the nation's general freight shipments. Less-Than-Truck Load (LTL) trucking remains the most popular system of distribution. A Federal Highway Administration (FHWA) study about larger truck size and weight in the U.S. is underway. The containerized cargo forecast for the New York metropolitan region shows an increase of 5.4 percent by the year 2015, reaching 3.14 million containers. In the Port of New York and New Jersey, the development of marine freight transportation has been hampered by insufficient channel depths.

Based on the results of *Freight Stakeholders National Network* survey published in May 1997 by Freight Stakeholders Coalition/ATA, the following are the major concerns for the freight intermodal transportation industry:

- **Trucking:** adequate capacity and safety on roads and bridges linking customers and facilities; operational efficiency of roadways and highways.
- **Rail:** adequate bridge and tunnel clearances; reduction of at-grade conflicts with vehicles and other rail traffic; adequate mainline and siding capacity; intermodal yard capacity; adequate connection to truck and water modes.
- **Air:** adequate land for warehousing and transfer activities; adequate landside access for trucks, including adequate connections between highways and airport freight facilities.
- **Waterborne commerce:** dredging for maintenance and deepening of navigation channels; adequate land for expansion of facilities; adequate truck and rail access to port and terminal locations.

LIST OF RECENT PUBLICATION ON FREIGHT ISSUES

#	Name of Report	Issued by	Date issued
A	North Shore Railroad Revitalization, Economic Impact Study	Office of Borough President Staten Island, NY	1995
A	Overall Economic Development Program, Staten Island, New York	Office of Borough President Staten Island, NY	1995
A	Air Cargo Master Plan	Port Authority of New York & New Jersey (PANY&NJ)	1995
A	Feasibility Study of a "Hub Port" Development	Booz-Allen & Hamilton Inc/ New York City Economic Developement Corporation (NYCEDC)	September 18, 1996
A	Intermodal Goods Movement Study: New York City Rail Freight Access, Task I to V	New York City Economic Development Corporation (NYCEDC)/Mercer Management Consulting, Inc.	January 1997
A	Greenpoint-Williamsburg Truck Traffic Study	New York City Department of City Planning (NYCDCP)	July 1997
B	Trucking in New York State - Preparing for the 21st Century	American Trucking Association Foundation (ATA)	1995
B	Truck Weight Study	New York Metropolitan Transportation Council (NYMTC)	February 1995
B	Economic Impact of the Port Industry on the New York-New Jersey Metropolitan Region	Port Authority of New York & New Jersey (PANY&NJ)	July 1995
B	Final Report - Freight Facilities and System Inventory	New York Metropolitan Transportation Council (NYMTC)	September 1995
B	Truck Terminal and Warehouse Survey Results	New York Metropolitan Transportation Council (NYMTC)	March 1996
B	Regional Truck Freight Network Strategic Plan	NYMTC, NJTPA, NYSDOT, NJDOT, FHWA (by Cambridge Systematics, Inc.)	March 1997
B	The Red Hook Barge Study	PANY&NJ/Audits & Surveys Worldwide Inc.	November 1995
B	Red Hook Trans-Harbor Freight Service, Operational, Financial, and Environmental Assessment	Booz-Allen & Hamilton Inc/ American Logistics/Konheim & Ketcham	August 28, 1996
B	Dredged Material Management Plan for the Port of New York and New Jersey	Department of the Army, Corps of Engineers	September 1996
B	Regional Economy, Review & Outlook for the NY-NJ Metropolitan Region	Port Authority of New York & New Jersey (PANY&NJ)	June 1997
B	Access to the Region's Core, Major Investment Study	NJTPA/MTA, New Jersey Transit (NJT), PANY&NJ	April 97
C	Lumber Reload Intermodal Distribution Sites/Plastic Pellet Int. Distribution Sites	MTA - Long Island Railroad	1995
C	Long Island City Truck Traffic & Access Study	New York City Department of City Planning (NYCDCP)	January 1996
C	Westchester County Goods Movement Study	Westchester County Department of Transportation/Urbitran Associates, Inc.	March 1995
C	New York Downstate Rail Freight Study	MTA - Long Island RailRoad (LIRR)/Mercer Management Consulting, Inc.	March 1995
C	Long Island Rail Road Transportation Hub Integration Study, Final Report, vol. I & II	Buckhurst Fish & Jacquemart Inc.	July 1995
C	Dutchess County Goods Movement Study	Poughkeepsie-Dutchess County Transportation Council	October 1995
C	Goods Movement Plan	Poughkeepsie-Dutchess County Transportation Council	March 1996
C	Conrail Merger and Northeast Railroad Restructuring Study	NYCEDC (prepared by Booz-Allen-Hamilton Inc)	May 7, 1997
C	Hub Bound Vehicle Classification and Occupancy Survey	Edwards & Kelcey Enginneers, Inc./NYMTC	June 1997
D	1994 Top 200 Motor Carriers, A Comprehensive List of the Leading For-Hire Carriers	American Trucking Association Foundation (ATA)	1995
D	Issues in Marine, Intermodal, and Motor Carrier Transportation, Record #1511	National Research Center, Transportation Research Board	1995
D	Motor Freight Transportation and Warehousing Survey	U.S. Department of Commerce	1995
D	Intermodal Freight Transportation, 3rd Edition (by G. Muller)	ENO Transportation Foundation	1995
D	US Freight Transportation Forecast to 2004	American Trucking Association Foundation (ATA)	April 1995
D	Census of Transportation, Communications, and Utilities, 1993 Commodity Flow Survey, NY, NJ, CT, US	U.S. Department of Commerce	April 1996
D	Rail - Road - Sea, The Intermodal Network	Intermodal Association of North America (IANA)	1996
D	American Trucking Trends	American Trucking Association Foundation (ATA)	1996
D	Waterborne Commerce of the United States, Calendar Year 1995, Atlantic Coast and USA	Department of the Army, Corps of Engineers	January 1997
D	How To Keep America Moving: ISTEA, Transportation for the 21st Century	U.S. Department of Transportation	January 1997
D	Truck Movements in America: Shipments From, To, Within, and Through States	Bureau of Transportation Statistics, TransStats series	May 1997

NJTPA: North Jersey Transportation Planning Authority, FWHA: Federal Highway Administration, MTA: Metropolitan Transit Authority, NJDOT: New Jersey Department of Transportation, NYSDOT: New York State Department of Transportation, NYCDCP: New York City Department of City Planning.

NOTE: A - New York City; B - Metropolitan Region; C - Subregion; D - Other Regions/ General

GROWTH OF CONTAINER PORT DEMAND

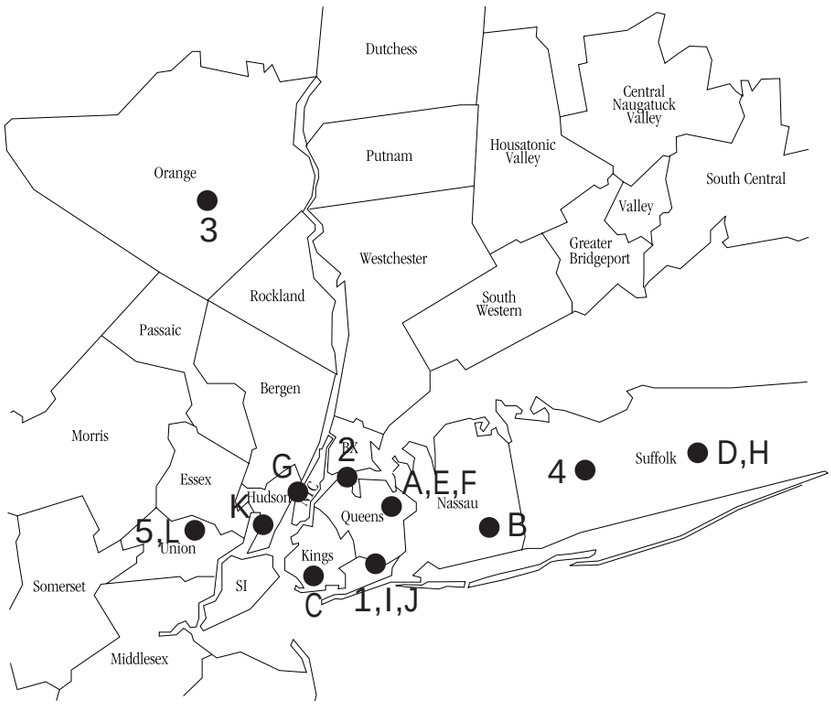
		Volume (in million TEUs)*		Forecast for 2010 (in million TEUs)	
Location	% Growth (1980-95)	1980	1995	Case I* Scenario	Case II*Scenario
Worldwide	2.62%	54	141.6	465	391
East Asia	510%	9.1	61.8	244	202
Europe	n/a	n/a	33.1	87	81
North America	220%	9.9	21.8	48	44

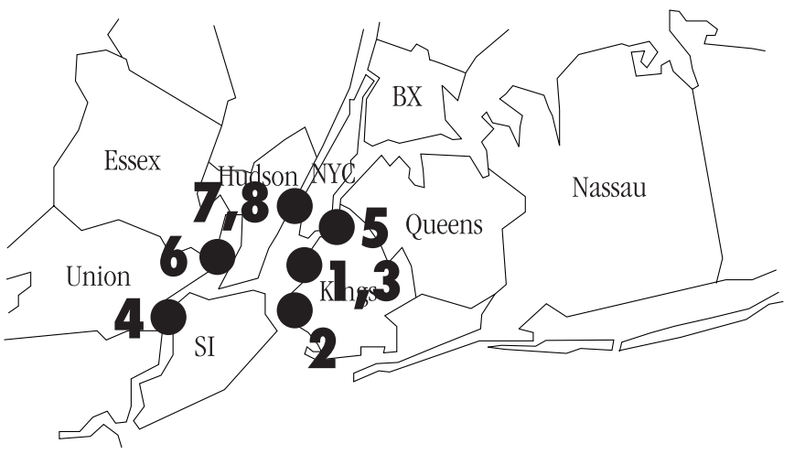
* TEU = 20-foot container equivalents unit

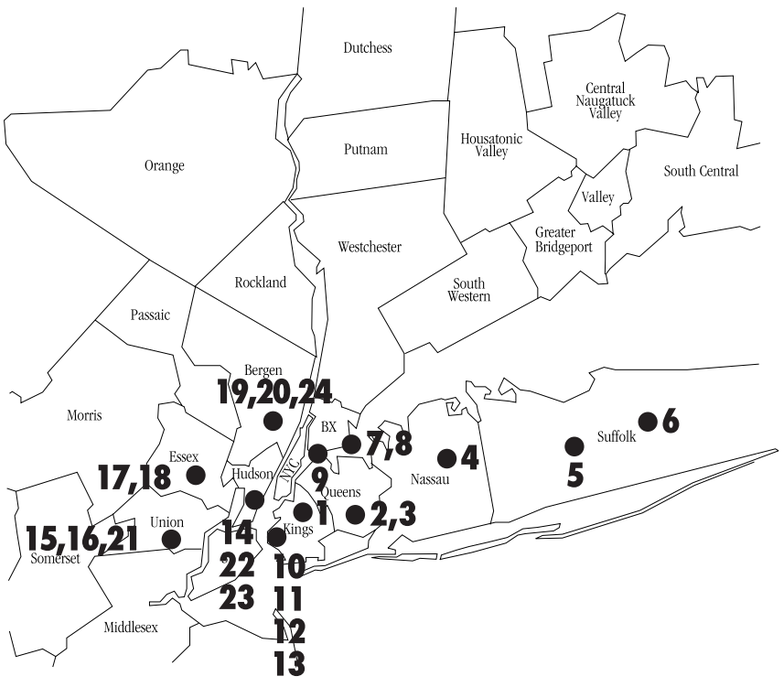
* Case I: free development of trade Case II: greater degree of protectionism

Source: Traffic World, December 2, 1996

Location of Major Freight Terminals







AIRPORTS

New York

1. JFK International Airport
2. LaGuardia Airport
3. Stewart International Airport
4. Long Island MacArthur Airport

New Jersey

5. EWR - Newark International Airport, New Jersey

TRUCK TERMINALS (UPS, USPS, FedEx only)

New York

A. UPS Maspeth Hub
B. UPS Melville Hub
C. UPS Foster Avenue Terminal
D. UPS Suffolk Hub, Farmingsville
E. UPS Laureton Hub
F. USPS Queens Processing & Distribution Center
G. USPS Morgan General Mail Facility, New York
H. USPS Mid-Island Processing & Distribution Ctr.
I. USPS Air Mail Center at JFK Airport
J. FedEx Hub at JFK Airport

New Jersey

K. USPS Dominic V.Daniels P&D Center at Kearny
L. FedEx Hub at EWR Airport

MARINE TERMINALS

New York

1. Red Hook Marine Terminal
2. South Brooklyn Marine Terminal
3. PANY&NJ Brooklyn Marine Terminal
4. Howland Hook Marine Terminak
5. Green Street Lumber Exchange

New Jersey

6. Port Newark/Port Elizabeth Marine Terminals
   Bay Avenue Terminal
   Maher Fleet Street Terminal
   Maher Tripoli Street Term.
   Sea-Land Marine Terminal
   Universal Marine Terminal
   Maersk Marine Terminal
7. Global Marine Terminal
8. Auto Marine Terminal

RAIL FREIGHT TERMINALS

New York

1. Bushwick (NY&AR)
2. Fresh Pond (NY&AR)
3. Maspeth Terminal (NY&AR)
4. Garden City (NY&AR)
5. Farmingdale (NY&AR)
6. Deer Park (NY&AR)
7. Harlem River Yard (CSX)
8. Hunt Point Market Terminal (CSX)
9. Oak Point Yard (CSX)
10. Atlantic Terminal at Red Hook (NYCHRR)
11. 65th Street Yard (NYCHRR)
12. Bush Terminal (NYCHRR)
13. South Brooklyn Terminals (SBK)

New Jersey

14. Greenville (NYCHRR)
15. ExpressRail (CSX/NS)
16. E-Rail (NS)
17. Oak Island (CSX/NS)
18. Doremus Avenue Auto Terminal (CSX/NS)
19. North Jersey Intermodal Terminal - Croxton (NS)
20. North Bergen Terminal (CSX)
21. Portside Terminal (CSX/NS shared)
22. South Kearny Terminal (CSX)
23. APL South Kearny (CSX/NS)
24. Little Ferry Terminal (CSX)

NOTES:

i. NY&AR = New York & Atlantic Railway
ii. NYCHRR =New York Cross-Harbor Railroad
iii. CSX and NS ownership: effective after approval by STB

SOURCE: Freight Facilities & System Inventory, NYMTC 1995

LIST OF MAJOR INTERMODAL FREIGHT FACILITIES IN THE METROPOLITAN REGION

MARINE TERMINALS

NAME OF FACILITY	LOCATION (County)	LAND ACCESS highways	TERMINAL SIZE in acres	STORAGE AREA	FREIGHT VOLUME (Unit Varies)	COMMODITIES TYPE	CRANES NUMBER	NUMBER OF BERTHS	BERTHS LENGTH	ACCESS CHANNEL DEPTH
Howland Hook Marine Terminal	Richmond	I-278,NJT,Rt.1 & 9 Future: Rail (SIRR)	187	200,000 sq. ft.	34,000 TEUs* (1996) 80,000 TEUs (1997)	General Cargo: Containers & Break-Bulk	7	2	2,500 ft.	37' & 42'
PANY&NJ Brooklyn Marine Term.	Kings	I-278, Rail (NY&ARR)	10	100,000 sq. ft.	30,000 LT* (1996 data)	Gen. Cargo: Break-Bulk, Ro-ro	0	5	5,880 ft.	32'
South Brooklyn Marine Terminal	Kings	I-278, Rail (NY&ARR)	110	600,000 sq. ft.	60,000 LT per year	Gen. Cargo: Break-Bulk, Coco, Ro-ro	2	7	6,135 ft	35'
Red Hook Marine Terminal	Kings	I-278, Rail (NY&ARR)	80	600,000 sq. ft.	55,256 TEUs per year 933,340 LT (1996 data)	General Cargo: Break-Bulk Containers, Ro-Ro	4	10	3,030 ft.	42'
Green Street Lumber Exchange	Kings	I-278, I-495	31	N/A	24,000 LT/year (domestic) 96,000 LT/year (international)	Lumber	0	2	1,400 ft.	32'
Bush Terminal Floatbridge (ferry/barges access)	Kings	I-278, Rail (NY&ARR)	NA	N/A	NA	Break-Bulk	0	1	N/A	35'

NOTE: This list does not include Port of New York and New Jersey Terminals, located on the Jersey side of Hudson River.

* TEU = Twenty Equivalent Unit, reference to a container of common 20 foot length; LT = Long Ton, or 2,240 lbs.

RAIL TERMINALS

NAME OF FACILITY	LOCATION (County)	LAND ACCESS highways	TERMINAL SIZE in acres	SERVING RAIL Co.	RAILCARS CAPACITY	COMMODITIES TYPE	FREIGHT VOLUME Unit Varies	NUMBER OF TRACKS	OUTBOUND TRAINS	TYPE OF SERVICE PERFORMED
Harlem River Yard	Bronx	I-87, I-278 (Bruckner)	28**	CSX* (Class I)	3,66 railcar/year	Containers, Break-Bulk, food Solid waste (cont), lumber	70,000 trucks/year	2 (intermodal)	275 railcars/week	COFC, TOFC
Hunts Point Market	Bronx	I-278 (Bruckner Exp)	329	CSX* (Class I)	500	Food products	500 trucks/day	NA	NA	COFC, TOFC
Bronx Terminal	Bronx	I-87 (Major Deegan)	32	CSX* (Class I)	NA	Food products	300 trucks/day	2	rail service inactive	NA
Oak Point Yard	Bronx	I-278 (Bruckner)	35	NA	450	NA	5,000 carload/year	NA	NA	Classification Yard
65th Street Yard	Kings (Bayridge)	I-278 (Gowanus)	33	NYCHRR (Interchange with CSX and NY&AR)	500 railcars	Building material, paper	79,000 railcars/year	4	as required	COFC, TOFC
Atlantic Terminal	Kings	I-278 (BQE/Gowanus)	14	NYCHRR (Class III)	250	Food, building material, steel	500 carloads/yr	1	5 trains per week	COFC & TOFC
Bush Terminal (First Avenue)	Kings	I-278 (BQE/Gowanus)	11	NYCHRR (Class III)	NA	Sludge, cocoa, steel, subway	4,000 carloads/year	5	5 trains per week	Box cars, TOFC
SBK terminals on 2nd, 4th, 10th Avenues, and Interchange Yard	Kings	I-278 (BQE/Gowanus)	1	SBK (Class III)	15	Iron pipes, subway cars, railroad elements	120 carloads/year	1	3 trains per week	Box cars, TOFC
Bushwick Terminal	Kings	I-278 (BQE)	2	NYCHRR (Class III)	45	Lumber, plastics, municiple waste containers	2,055 carloads/year	5	5 trains per week	Box cars, TOFC
Fresh Pond Yard	Queens	I-495 (LIE), I-278 (BQE)	3.5	NY&A R (Class III)	200	Lumber, building material,	117 carloads/year	1 (operation) & 15 classification	5 trains per week	Bulk in Box cars
Maspeth Yard	Queens	I-495 (LIE), I-278 (BQE)	3.3	NY&A R (Class III)	50	Food product, plastic, gen.	NA	2	5 trains per week	Bulk in Box cars
Garden City Long Island Yard	Nassau	I-495 (LIE)	4	NY&A R (Class III)	50	Food (bulk)	5 carloads/year	5	5 trains per week	Bulk in Box cars
Farmingdale Team Yard and Republic Site	Suffolk	I-495 (LIE), Rt.110	2 & 11	NY&A R (Class III)	16	Lumber, plastic, paper	82 carloads/year	2	10 trains per week	COFC, TOFC
Deer Park Yard, Long Island	Suffolk	I-495 (LIE)	23	NY&A R (Class III)	100	Paper, lumber	1,027 carloads/year	1	5 trains per week	COFC, TOFC

NOTE: Rail classification is based on gross annual operating revenues at specific levels for three consecutive years. Class I = revenue $250 million or more; Class II = $20 million to $250 million, Class III = $20 million or less.

NY&AR = New York and Atlantic Railroad; NYCHRR = New York Cross Harbor Railroad

COFC = Container on Flatcar; TOFC = Trailer on Flatcar

TOFC = Trailer on Flatcar

* NOTE: CSX will take over from Conrail after STB approval

** NOTE: Originally - 96 acres

SOURCE(s): Freight Facilities and System Inventory Report, NYMTC, 1996, and PANY&NJ

LIST OF MAJOR INTERMODAL FREIGHT FACILITIES IN THE METROPOLITAN REGION

AIRPORTS

NAME OF FACILITY	LOCATION (County/ State)	LAND ACCESS highways	TERMINAL SIZE in acres	PLANE MOVEMENT per year	CARGO HANDLING SPACE	AIR CARGO TONNAGE per year	RUNWAYs NUMBER	EMPLOYEES NUMBER
JFK International Airport	Queens, NY	I-678	4,930	343,250	2.5 million sq.ft.	1,468,156 (freight) 112,527 (mail)	5	35,000
LaGuardia Airport	Queens, NY	I-678, GCP	660	337,737	100,000 sq.ft.	40,375 (freight) 62,371 (mail)	2	10,300
Long Island MacArthur Airport	Suffolk, NY	I-495, Rt.27	1,311	179,986	3,000 sq.ft.	2,564 (freight & mail)	2	1,000
Stewart International Airport	Orange, NY	I-84, I-87	1,900	114,046	50,000 sq.ft.	146,310	2	3,286
Newark International Airport (EWR)	Essex/Union, NJ	NJT, Rt. 1 & 9, I-78	2,300	436,686	500,000 sq.ft.	872,617 (freight) 77,481 (mail)	3	17,800

NOTE: In 1995, JFK ranked 8th in U.S. passenger and 3rd in cargo traffic tonnage (increase 8.4% from 1994), LGA rated 19th and 44th (decrease 0.3% from 1994), and EWR ranked 13th in U.S. passenger and 8th in cargo traffic tonnage (increase 9.4% from 1994 to 1995).

SOURCE: Freight Facilities and System Inventory Report, NYMTC, 1995, and PANY&NJ

INTERMODAL FLEET FACTS

* In 1997, North American intermodal fleet (trailers and containers) showed a four percent increase from 1996, reaching 163,900 trailers and containers.

* Intermodal Association of North America (IANA) predicted a two percent growth in intermodal fleet during 1998.

* Trailers provided 55 percent of the total domestic fleet, with containers providing the remaining 45 percent.

SOURCE: Journal of Commerce, 10/01/97, IANA

MAJOR TRUCK TERMINALS AND DISTRIBUTION CENTERS

NAME OF FACILITY	LOCATION (County/State)	OPERATOR	TERMINAL SIZE in acres	LAND ACCESS highways	NUMBER OF TRUCK BAYS	TRUCK TRIPS per day	FREIGHT VOLUME tons/day	COMMODITIES TYPE
Queens Processing & Distribution Center	Queens, NY	USPS	24	I-678, I-495, 907 M (GCP)	44	300	4,500	Small packages
AMC at JFK International Airport	Queens, NY	USPS	27	I-678 (VWE). South Conduit	100	160	670	Mail, packages
Laureton Hub	Queens, NY	UPS	8	I-678, I-495 907C(Belt Pkwy)	220	420	150	Mail, small packages
Maspeth Hub	Queens, NY	UPS	20	I-495 (LIE) I-278 (BQE)	415	780	300	Small packages
JFK FedEx Center	Queens, NY	FedEx	50	I-678 (Van Wyck) Nassau Expy	50	150	150	Small packages
Morgan GMF	New York, NY	UPS	NA	NJT, 9A	130	670	3,350	Mail, packages
43rd Street Hub	New York, NY	UPS	4	9A (West Side Hwy)	475	890	2,250	Small packages
Foster Avenue Hub	Kings, NY	UPS	10	I-678 (VWE)	260	265	1,000	Small packages
Nassau (Uniondale) Hub	Nassau, NY	UPS	20	I-495 (LIE)	440	790	2,500	Small packages
Suffolk (Farmingsville) Hub	Suffolk, NY	UPS	15	I-495 (LIE)	250	508	750	Small packages
Melville (Long Island) Hub	Suffolk, NY	UPS	15	I-495 (LIE); 908G(Northern State Pk.)	320	515	1,260	Small packages
Mid-Island Center P&D	Suffolk, NY	UPS	40	I-495 (LIE)	NA	650	NA	Mail, small packages

NOTE: Only USPS, UPS, and Federal Express Facilities are considered in this table.

SOURCE: Freight Facilities and System Inventory Report, NYMTC, 1995 and PANY&NJ

LIST OF MAJOR FREIGHT TERMINALS (MARINE AND RAIL) IN NEW JERSEY

MARINE

NAME OF FACILITY	LOCATION (County/State)	LAND ACCESS	TERMINAL SIZE (acres)	STORAGE AREA (sq. ft.)	FREIGHT VOLUME	COMMODITIES TYPE	NUMBER OF CRANES	NUMBER OF BERTH	BERTH LENGTH	ACCESS CHANNEL DEPTH
Port Newark/Port Elizabeth										
Bay Avenue Terminal/barge service	Union, NJ	New Jersey Turnpike (NJT)	94	63,000	NA	Bulk/Gen. Cargo/ sludge	3	4	2,825'	35'
Maher Fleet Street	Union, NJ	NJT	200	NA	451,574 TEUs/yr, 12,572 autos	Containers, Ro-ro, autos	7	8	4,200'	35'
Maher Tripoli Street	Union, NJ	NJT	243	371,000	380,000 TEUs/yr 8,380 autos	Containers,autos, Ro-ro,breakbulk	9	5	3,150'	38'
Sea-Land Marine Terminal	Union, NJ	NJT	266	306,000	350,000 TEUs/yr 3,467 autos	Containers, Ro-ro,breakbulk	7	6	4,519'	40'
Universal Marine Terminal	Essex, NJ	NJT	153	250,000	350,000 TEUs/yr	Containers, Ro-ro,breakbulk	8	6	3,822'	40'
Maersk Marine Terminal	Essex, NJ	NJT	64	175,000	338,000 TEUs	Containers, General cargo	4	4	764'	37'
Global Marine Terminal	Hudson, NJ	NJT Ext., Rt.1&9	110	125,000	278,154 TEUs	Containers, General cargo	4	2	1,800'	40'
Auto Marine Terminal	Hudson, NJ	NJT Ext., Rt.1&9	147	NA	249 ships sail per month	Automobiles	0	2	1,800'	32'

Source: Freight Facilities and System Inventory, NYMTC, 1995, and PANY&NJ

RAIL

NAME OF FACILITY	LOCATION (County/State)	LAND ACCESS	TERMINAL SIZE (acres)	SERVING RAIL	RAIL CARS CAPACITY	COMMODITIES TYPE	FREIGHT VOLUME	NUMBER OF TRACKS	OUTBOUND TRAINS	TYPE OF SERVICE PERFORMED
Greenville (barge facility)	Hudson, NJ	NJT Ext.	33	CSX/NS and NYCHRR	79,000 rail cars/yr	municip.waste, oil, steel, chemical lumber	600 carload/year	tracks:10 floatbridge: 4	NA	ferry, COFC, TOFC
ExpressRail	Union, NJ	NJT, Rt. 1 & 9	33	CSX/NS	NA	containers, break-bulk	150,000 containers/year	5	12	DST
E-Rail	Union, NJ	NJT, Rt. 1 & 9	55	NS	1,800	containers, break-bulk	20,048 containers/year	4	3	DST
Oak Island	Essex, NJ	NJT, Rt. 1 & 9	50	CSX/NS	600	Break-bulk	120,000 tons/year	4	7	COFC, TOFC
Doremus Avenue Auto Terminal (Term.1 & 2)	Essex, NJ	NJT Ext.,Rt. 1 & 9	Term.1- 30 Term.2- 26	CSX/NS	2,765-Term.1, 3,300-Term.2	automobiles	100,000 tons/year	holding tracks: 8, unloading tracks: 7	10	COFC,TOFC
Resources Warehouse & Landbridge Termin.	Bergen, NJ	NJT Ext.,Rt. 1 & 9	75	N.Y.S.W.	10,950 DST/year	containers, break-bulk	45,000 containers/yr	working tracks 2 storage tracks 3	daily services	DST, COFC, TOFC
North Jersey Intermodal Terminal (Croxton)	Bergen, NJ	NJT, Rt. 1 & 9	75	NS	1,965	containers, break-bulk	135,577 containers/year	3	9	DST
North Bergen Terminal	Bergen, NJ	Rt. 1 & 9	50	CSX	500	containers, break-bulk	89,618 containers/year	4	25	DST
Portside Terminal	Union, NJ	NJT	25	CSX/NX	650	containers, break-bulk, autos, food	92,000 containers/year	3	5	DST
South Kearny Terminal	Hudson, NJ	Rt. 1 & 9	182	CSX	1,963	containers, break-bulk	256,723 containers/year	6	45	DST
APC South Kearny	Hudson, NJ	Rt. 1 & 9	100	CSX/NS	2,600	containers, break-bulk	108,677 containers/year	3	4	DST
Little Ferry Terminal	Bergen, NJ	NJT, Rt. 1 & 9	23	CSX	500	containers, break-bulk	16,058 domest.& 36,576 internat. containers/year	3	5	DST, containers

DST = Double Stack; COFC = Container on Flatcar; TOFC = Trailer on Flatcar

Source: Freight Facilities and System Inventory, NYMTC, 1995, and PANY&NJ

SHIPMENT CHARACTERISTICS BY MODE OF TRANSPORTATION FOR STATE OF ORIGIN

	National Transportation Analysis Region (NTAR)*					
	Value ($ million)	Percent	Tons (000)	Percent	Ton-miles (mil.)	Percent
ALL MODES	373,308	100.0	192,243	100.0	34,281	100.0
SINGLE MODES						
Parcel, USPS, Courier	62,636	16.8	1,471	0.8	944	2.8
All trucks	272,547	73.0	152,226	79.2	21,506	62.7
Air	16	0.0	NA	NA	1	0.0
Rail	2,525	0.7	1,994	1.0	1,828	5.3
Water	1,768	0.5	12,255	6.4	NA	NA
Pipeline	1,364	0.4	NA	NA	NA	NA
MULTIPLE MODES						
Private & for-hire truck	252	0.1	NA	NA	43	0.1
Truck/Air	13,364	3.6	248	0.1	356	1.0
Truck/Rail	NA	NA	NA	NA	NA	NA
Truck/Water	NA	NA	NA	NA	69	0.2
OTHER MODES	15,078	4.0	10,020	5.2	NA	NA

	New York State (NY)					
	Value ($ million)	Percent	Tons (000)	Percent	Ton-miles (mil.)	Percent
ALL MODES	261,894	100.0	219,772	100.0	36,148	100.0
SINGLE MODES						
Parcel, USPS, Courier	34,811	13.3	855	0.4	537	1.5
All trucks	198,806	75.9	194,353	88.4	25,746	71.2
Air	NA	NA	1	0.0	1	0.0
Rail	4,128	1.6	7,045	3.2	4,008	11.1
Water	NA	NA	NA	0.0	NA	NA
Pipeline	NA	NA	NA	0.0	NA	NA
MULTIPLE MODES						
Private & for-hire truck	200	0.1	956	0.4	78	0.2
Truck/Air	10,500	4.0	132	0.1	224	0.6
Truck/Rail	113	0.0	88	0.0	136	0.4
Truck/Water	NA	NA	NA	NA	75	0.2
OTHER MODES	11,088	4.2	7,597	3.5	NA	NA

	New Jersey (NJ)					
	Value ($ million)	Percent	Tons (000)	Percent	Ton-miles (mil.)	Percent
ALL MODES	252,790	100.0	179,510	100.0	32,140	100.0
SINGLE MODES						
Parcel, USPS, Courier	35,412	14.0	944	0.5	560	1.7
All trucks	197,627	78.2	135,938	75.7	21,301	11.9
Air	NA	NA	NA	NA	NA	NA
Rail	1,623	0.6	2,931	1.6	1,962	1.1
Water	1,296	0.5	NA	NA	NA	NA
Pipeline	1,859	0.7	9,919	NA	NA	NA
MULTIPLE MODES						
Private & for-hire truck	NA	NA	NA	NA	NA	NA
Truck/Air	4,162	1.6	156	0.1	190	0.1
Truck/Rail	NA	NA	NA	NA	NA	NA
Truck/Water	29	0.0	22	0.0	NA	NA
OTHER MODES	6,680	2.6	5,638	3.1	979	0.5

	Connecticut (CT)					
	Value ($ million)	Percent	Tons (000)	Percent	Ton-miles (mil.)	Percent
ALL MODES	71,357	100.0	44,208	100.0	4,616	100.0
SINGLE MODES						
Parcel, USPS, Courier	13,786	19.3	348	0.8	251	5.4
All trucks	52,020	72.9	43,152	97.6	4,027	87.2
Air	21	0.0	NA	0.0	NA	NA
Rail	137	0.2	171	0.4	136	2.9
Water	NA	NA	NA	NA	NA	NA
Pipeline	NA	NA	NA	NA	NA	NA
MULTIPLE MODES						
Private & for-hire truck	55	0.1	NA	NA	11	0.2
Truck/Air	2,933	4.1	41	0.1	54	1.2
Truck/Rail	29	0.0	7	0.0	4	0.1
Truck/Water	NA	NA	NA	0.0	NA	0.0
OTHER MODES	2,360	3.3	329	0.7	124	2.7

	United States (U.S.)					
	Value ($ million)	Percent	Tons (000)	Percent	Ton-miles (mil.)	Percent
ALL MODES	5,846,334	100.0	9,488,493	100.0	2,420,915	100.0
SINGLE MODES						
Parcel, USPS, Courier	563,277	9.6	18,892	0.2	13,151	0.5
All trucks	4,380,930	74.9	6,351,792	66.9	864,897	35.7
Air	5,200	0.1	148	0.8	139	0.0
Rail	247,394	4.2	1,544,148	16.3	942,561	38.9
Water	41,947	0.7	395,495	4.2	176,766	7.3
Pipeline	89,849	1.5	483,645	5.1	NA	NA
MULTIPLE MODES						
Private & for-hire truck	22,565	0.4	34,123	0.4	4,639	0.2
Truck/Air	133,887	2.3	2,991	0.0	3,870	0.2
Truck/Rail	83,082	1.4	40,624	0.4	37,675	1.6
Truck/Water	9,392	0.2	67,995	0.7	40,610	1.7
Truck/Pipeline	349	0.0	NA	NA	NA	NA
Rail/Water	3,636	0.1	79,222	0.8	70,219	2.9
Inl Water/Deep See	22,130	0.5	123,417	1.3	95,215	3.9
OTHER MODES	242,691	4.2	544,335	5.7	96,972	4.0

SOURCE: 1993 Commodity Flow Survey, issued in 1996 (US Department of Commerce, Bureau of the Census)

* NTAR covers New York City, Nassau and Suffolk, Dutchess, Putnam, Rockland, Westchester, Orange, Ulster, Sullivan (NY), Essex, Union, Somerset, Middlesex, Monmouth, Ocean, Sussex, Hunterdon, Morris, Essex, Bergen, Passaic, and Hudson (NJ), Pike (PA), and Fairfield (CT) counties.

Manufactured Commodities Moved by Mode, Annual Tons, Historical and Forecast Data, 1995 to 2000
Includes Primary and Secondary Shipping

STATE	YEAR		TOTAL	RAIL			TRUCK					AIR		WATER	
				Carload	Intermodal	Rail Total	For Hire Truck Truckload	LTL	Private Truck	Truck Total	Tons each bus. day	Air	Air Total	Water	Water Total
New Jersey	1995	Inbound	132,461,377	9,149,393	4,832,655	13,982,048	43,610,580	3,558,197	54,049,136	101,217,913	389,300	70,919	70,919	17,190,497	17,190,497
		Outbound	134,827,527	2,858,598	2,072,642	4,931,240	47,535,473	3,800,314	48,188,045	99,523,832	382,784	82,131	82,131	30,290,324	30,290,324
		Total	267,288,904			18,913,288				200,741,745	772,084		153,050		47,480,821
		% of Total	100			7.1				75.1			0.1		17.8
	2000	Inbound	143,476,154	10,117,205	5,768,430	15,885,635	47,142,894	3,830,455	57,624,428	108,697,777	418,068	82,197	82,197	18,810,545	18,810,545
		Outbound	142,840,838	3,036,114	2,147,288	5,183,402	50,476,681	4,087,554	50,962,982	105,527,217	405,874	88,331	88,331	32,041,888	32,041,888
		Total	286,316,992			21,069,037				214,224,994	823,942		170,528		50,852,433
		% of Total	100			7.4				74.8			0.1		17.8
		Change	19,028,088			2,156,749				13,483,249			17,478		3,371,612
		% Change	7.1			11.4				6.7			11.4		7.1
New York	1995	Inbound	205,949,990	9,894,659	847,661	10,742,320	66,467,523	5,151,223	92,953,441	164,572,187	632,970	257,927	257,927	30,377,556	30,377,556
		Outbound	177,549,078	7,290,544	546,280	7,836,824	50,355,590	4,131,838	89,964,118	144,451,546	555,593	117,788	117,788	25,142,920	25,142,920
		Total	383,499,068			18,579,144				309,023,733	1,188,553		375,715		55,520,476
		% of Total	100			4.8				80.6			0.1		14.5
	2000	Inbound	223,083,882	10,817,952	995,244	11,814,196	72,866,931	5,776,574	99,315,601	177,959,106	684,458	312,091	312,091	32,998,489	32,998,489
		Outbound	189,878,350	7,724,202	600,373	6,324,575	53,752,595	4,516,354	95,677,028	153,945,977	592,100	130,538	130,538	27,477,260	27,477,260
		Total	412,962,232			20,138,771				331,905,083	1,276,558		442,629		60,475,749
		% of Total	100			4.9				80.4			0.1		14.6
		Change	29,463,164			1,559,627				22,881,350			66,914		4,955,273
		% Change	7.7			8.4				7.4			17.8		8.9
Connecticut	1995	Inbound	44,292,129	1,493,556	3,080	1,496,636	9,219,977	960,785	21,572,857	31,753,619	122,129	21,899	21,899	11,019,975	11,019,975
		Outbound	29,344,317	134,008	5,760	139,768	6,744,356	715,657	21,151,612	28,611,625	110,045	9,072	9,072	583,852	583,852
		Total	73,636,446			1,636,404				60,365,244	232,174		30,971		11,803,827
		% of Total	100			2.2				82.0			0.0		15.8
	2000	Inbound	48,078,930	1,635,493	3,709	1,639,202	10,094,737	1,077,847	23,216,096	34,388,680	132,264	24,130	24,130	12,026,918	12,026,918
		Outbound	31,584,698	147,211	6,022	153,233	7,324,617	791,230	22,672,478	30,788,325	118,417	9,825	9,825	633,315	633,315
		Total	79,663,628			1,792,435				65,177,005	250,681		33,955		12,660,233
		% of Total	100			2.3				81.8			0.0		15.9
		Change	6,027,182			156,031				4,811,761			2,984		1,056,406
		% Change	7.6			8.7				7.4			8.8		8.3
U.S.	**1995**	**Inbound**	**5,605,871,549**	**9,894,659**	**847,661**	**638,338,778**	**2,005,920,286**	**110,134,599**	**2,431,039,345**	**4,547,094,230**	**17,488,824**	**2,386,548**	**2,386,548**	**418,051,993**	**418,051,993**
		Outbound	**5,605,871,549**	**7,290,544**	**546,280**	**638,338,778**	**2,005,920,286**	**110,134,599**	**2,431,039,345**	**4,547,094,230**	**17,488,824**	**2,386,548**	**2,386,548**	**418,051,993**	**418,051,993**
		Total	**11,211,743,098**			**1,276,677,556**				**9,094,188,460**	**34,977,648**		**4,773,096**		**836,103,986**
		% of Total	**100.0**			**11.4**				**81.1**			**0.0**		**7.5**
		Inbound	**6,290,669,767**	**581,126,598**	**134,820,920**	**715,947,518**	**2,251,650,167**	**125,267,356**	**2,724,839,085**	**5,101,756,608**	**19,622,141**	**2,788,272**	**2,788,272**	**470,177,369**	**470,177,369**
	2000	**Outbound**	**6,290,669,767**	**581,126,598**	**134,820,920**	**715,947,518**	**2,251,650,167**	**125,267,356**	**2,724,839,085**	**5,101,756,608**	**19,622,141**	**2,788,272**	**2,788,272**	**470,177,369**	**470,177,369**
		Total	**12,581,339,534**			**1,431,895,036**				**10,203,513,216**	**39,244,282**		**5,576,544**		**940,354,738**
		% of Total	**100.0**			**11.4**				**81.1**			**0.0**		**7.5**
		Change	**1,369,596,436**			**155,217,480**				**1,109,324,756**			**803,448**		**104,250,752**
		% Change	**10.9**			**10.8**				**10.9**			**14.4**		**11.1**

SOURCE: Reebie Associates TransSerch Database/The ATA Foundation

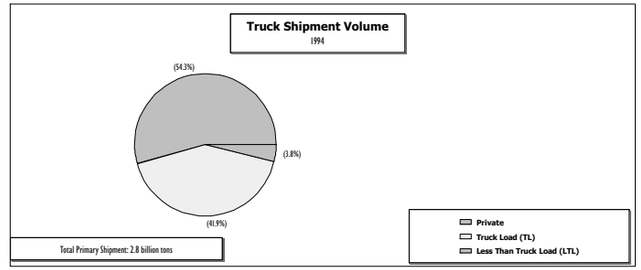
Freight Forecast for Domestic Volume
1994-2004

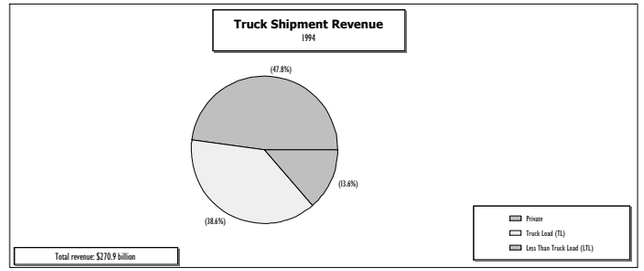
MODE	MILLION TONS			MODAL SHARE			CAGR*	CUM. CHANGE
	1994	1999	2004	1994	1999	2004	94-04	94-04
Truck	5,456	5,987	6,499	54.9%	55.4%	55.9%	1.8%	19.1%
Rail	1,614	1,825	1,982	16.2%	16.9%	17.1%	2.1%	22.8%
Intermodal	128	160	208	1.3%	1.5%	1.8%	5.0%	62.5%
Air	7	10	13	0.1%	0.1%	0.1%	6.7%	92.0%
Water	1,058	1,091	1,151	10.6%	10.1%	9.9%	0.8%	8.8%
Pipeline	1,676	1,726	1,769	16.9%	16.0%	15.2%	0.6%	5.6%
Total	9,938	10,799	11,622	100.0%	100.0%	100.0%	1.6%	16.9%

* CAGR - Compound Annual Growth Rate. Source: US Freight Transportation Forecast, by ATA Foundation
NOTE: Three principle segments of truck sector: private carriage, for-hire truckload and for-hire LTL.

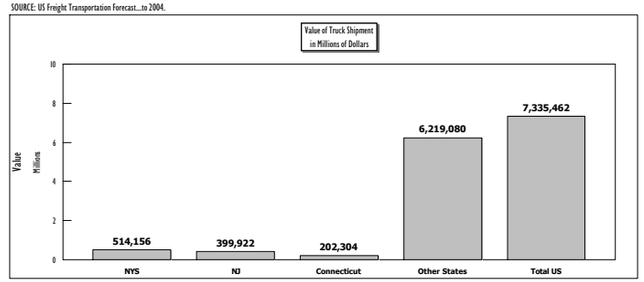
SOURCE: U.S. Freight Transportation Forecast ... to 2004, ATA, 1996

General Freight: Truck Shipment - 1994

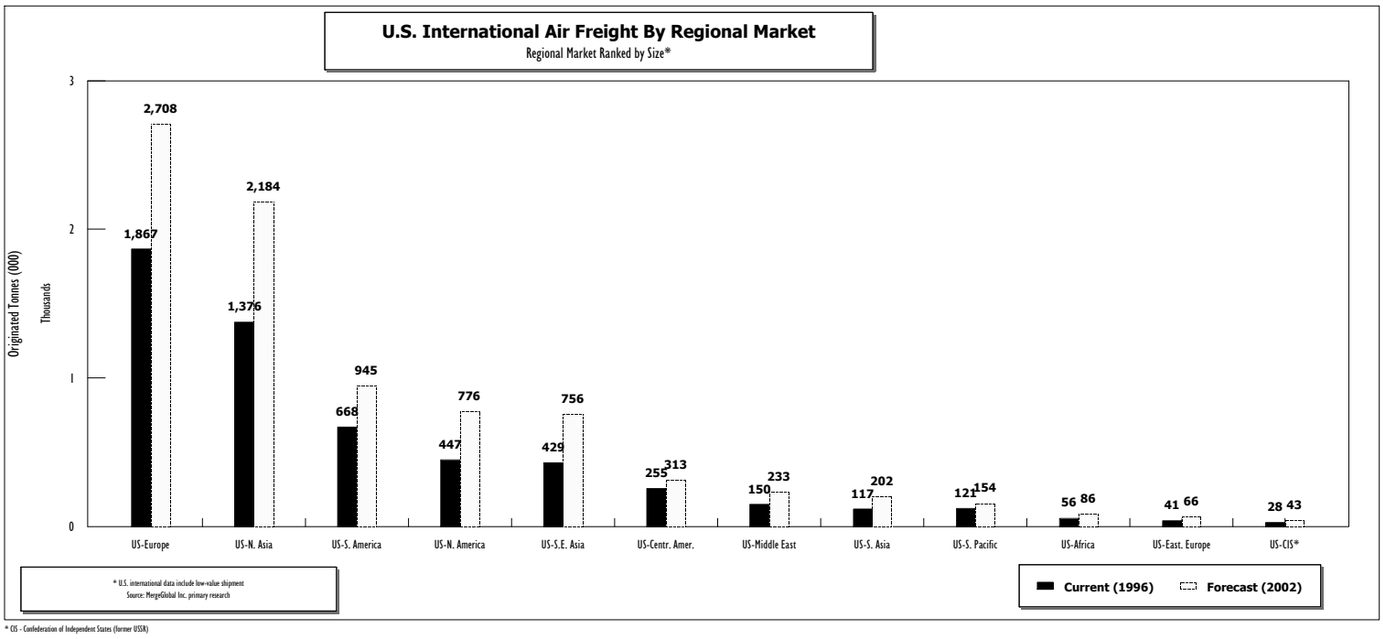




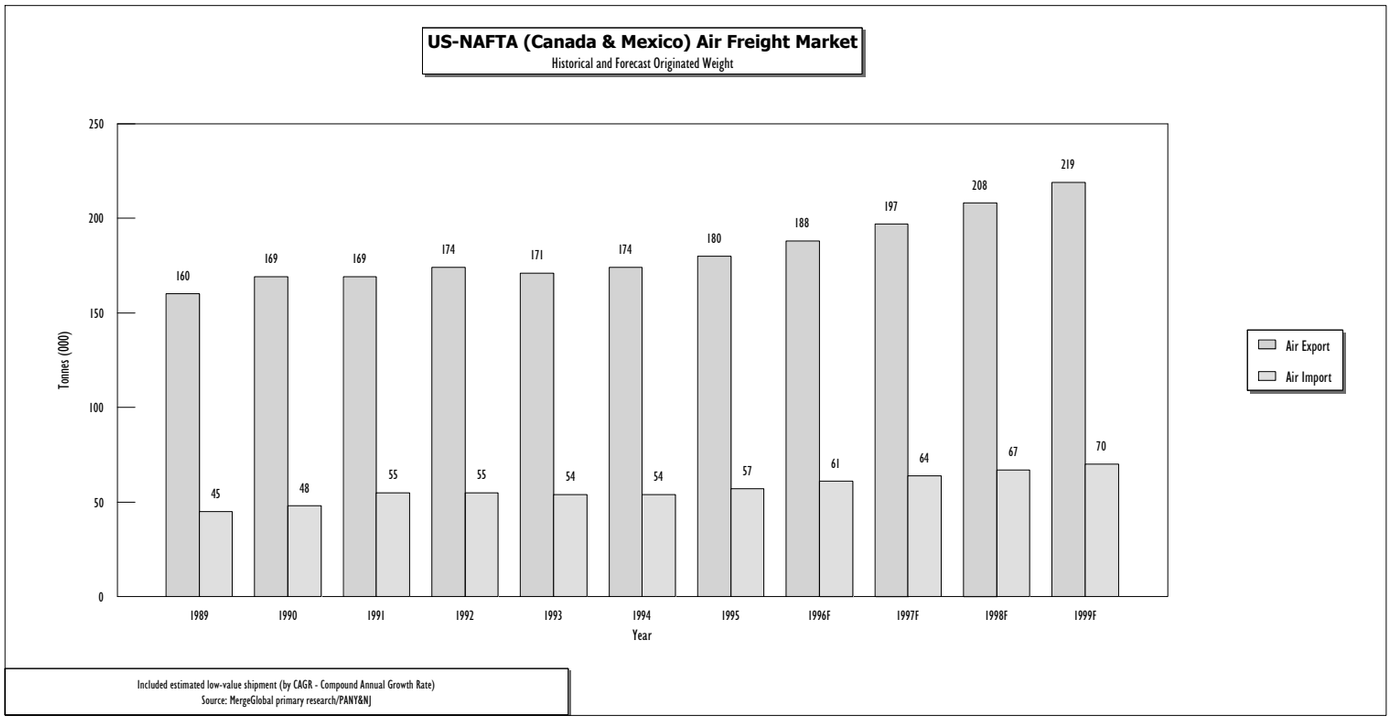
SOURCE: US Freight Transportation Forecast...to 2004.



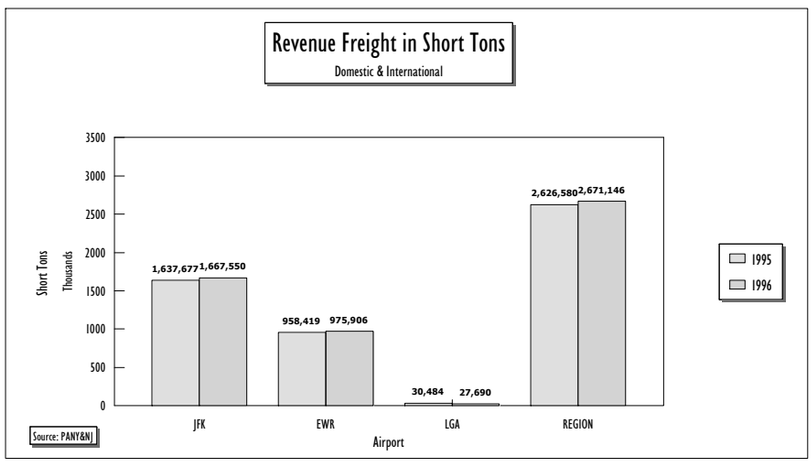
SOURCE: Truck Movement in America, U.S. DOT, May 1997



* CIS - Confederation of Independent States (former USSR)



F - Forecast



FREIGHT CONTAINERS THRUPUTS - 1996

(Boxes 20 and 40 Foot)

Terminal	Export	Import	Total
Elizabeth Port Authority Marine Terminal	428,008	436,646	864,654
Port Newark	95,760	101,470	197,230
Global Termina	81,121	88,716	169,840
Howland Hook	6,832	5,708	12,540
Red Hook	19,741	18,183	37,924
Total	631,462	650,726	1,282,188

Source: PANY&NJ

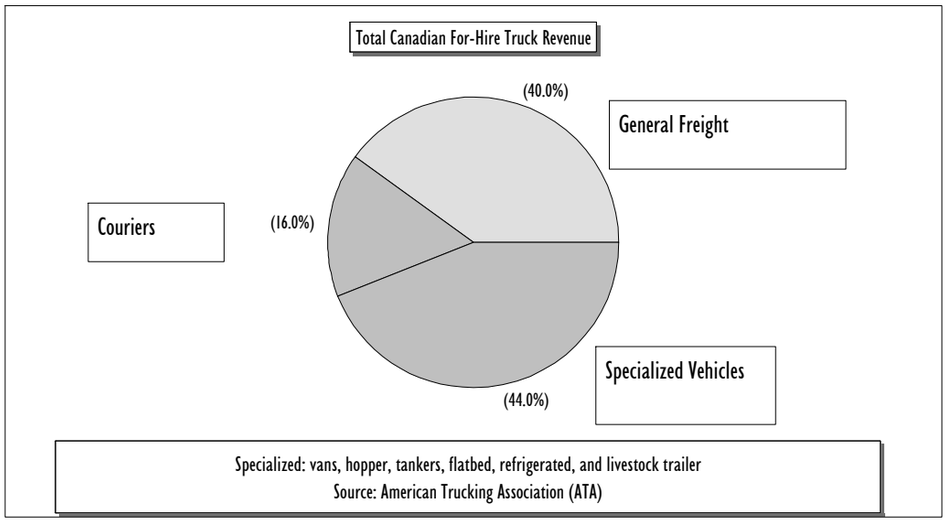
NATIONAL DATA

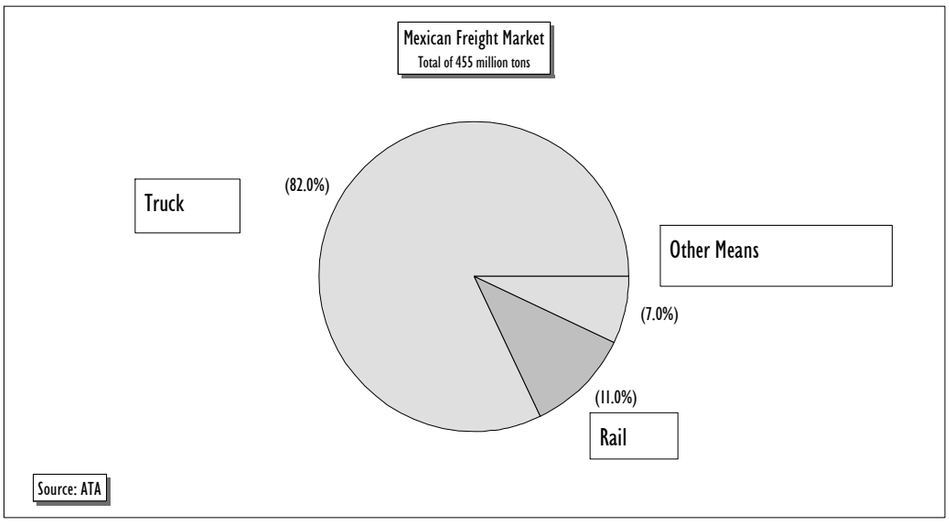
U.S. TRUCKING, COURIER, AND WAREHOUSING SERVICES

REVENUE (000,000)	1994	1995	ABSOLUTE DIFFERENCE	PERCENT CHANGE
Truckload	93,715	97,824	4,109	4.4
Less than Truck Load	55,445	58,147	2,702	4.9
Total Revenue (Million of Dollars)	149,160	155,971	6,811	4.6
Within U.S.	147,045	153,642	6,597	4.5
U.S.-Canada	789	889	100	12.7
Canada to U.S.	664	696	32	4.8
Other Destinations	663	744	81	12.2
Public Warehousing	9,911	10,941	1,030	10.4
General Warehousing	4,652	5,060	408	8.8
Refrigerated Warehousing	1,970	2,271	301	15.3
Special Warehousing	2,516	2,829	313	12.4

Source: US Census Bureau, Motor Freight Transportation and Warehousing Survey 1995

CANADIAN AND MEXICAN FREIGHT MARKET (1994)

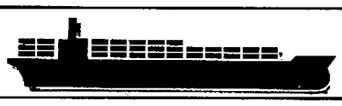




SHIP DEVELOPMENT TOWARD MEGASHIP

At present, only one percent of the world's containership fleet is made up of ships larger than 4,500 TEUs (Twenty Foot Equivalent Units) or megaships. However, eight percent of the containerships on order are ships in that class and by the year 2010, 33 percent of the fleet will be larger than 4,500 TEUs.

World Containership Orders by Class of Ship

SHIP		ORDERS as of 11/96	PERCENT of ORDERS
	4,500+ TEUs	45	8
	3,000 - 4,499 TEUs	73	13
	2,000 - 2,999 TEUs	91	17
	1,000 - 1,999 TEUs	167	30
	Less than 1,000 TEUs	177	32

Source: Containerization International Yearbook, 1997

Here are the strengths and weaknesses of the major gateways on the Atlantic Ocean as they strive to be **mega-ports**.

PORT	STRENGTHS	WEAKNESSES
New York-New Jersey	Large number of consumers; vast container terminals; good rail connections.	Some critical parts of the harbors and channels require dredging.
Halifax (Canada)	Deep channels; a day's sailing closer to Europe than other east coast ports.	A day closer to Europe makes it a day further from the American markets.
Baltimore	Large container terminal; good rail connections; accessible from north, from Chesapeake and Delaware Canal, and from south, directly up Chesapeake Bay.	Docks are a day's ride up the bay; Hampton Roads offers keen competition.
Boston	The channel has been deepened, the docks are an hour from the sea.	Midwest market are often served by the St. Lawrence Seaway, while markets to the south are served by New York and northern New Jersey. This reduces the number of consumers depending on Boston.
Philadelphia	New facilities for handling fruits. Good alternative when winter shuts down the Great Lakes. Double-stack rail service.	Docks are eight hours up the Delaware Bay and River. Channels require dredging.

Source: Journal of Commerce, September 29, 1997

FREIGHT CONTAINERS THROUGHPUT* - 1996
(Boxes 20 and 40 foot)

Terminal	Export	Import	Total
Port Elizabeth Marine Terminals	428,008	436,646	864,654
Port Newark Marine Terminals	95,760	101,470	197,230
Global Terminal	81,121	88,716	169,840
Howland Hook	6,832	5,708	12,540
Red Hook	19,741	18,183	37,924
Total	631,462	650,726	1,282,188

Throughput = A measure of productivity for cargo (i.e. containers per day/month/year) processed and handled by a port facility.
Source: PANY&NJ