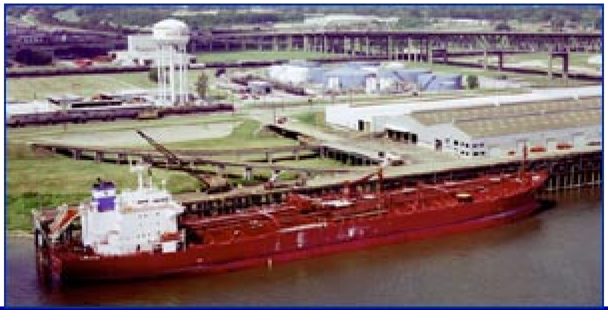


Ports of Louisiana Strategic Economic Development Plan

Container Analysis Provided to the Port of New Orleans

September 2008

Confidential-Preliminary Draft
For Internal Use Only

Important Notes

- The attached analyses are work in progress and therefore subject to refinement
- The attached slides represent a compendium of the container market analyses Norbridge prepared as part of the SESD effort
- The attached analyses are based on PIERs data, which has limitations in terms of its ability to accurately identify the true inland origins and destinations for container cargoes

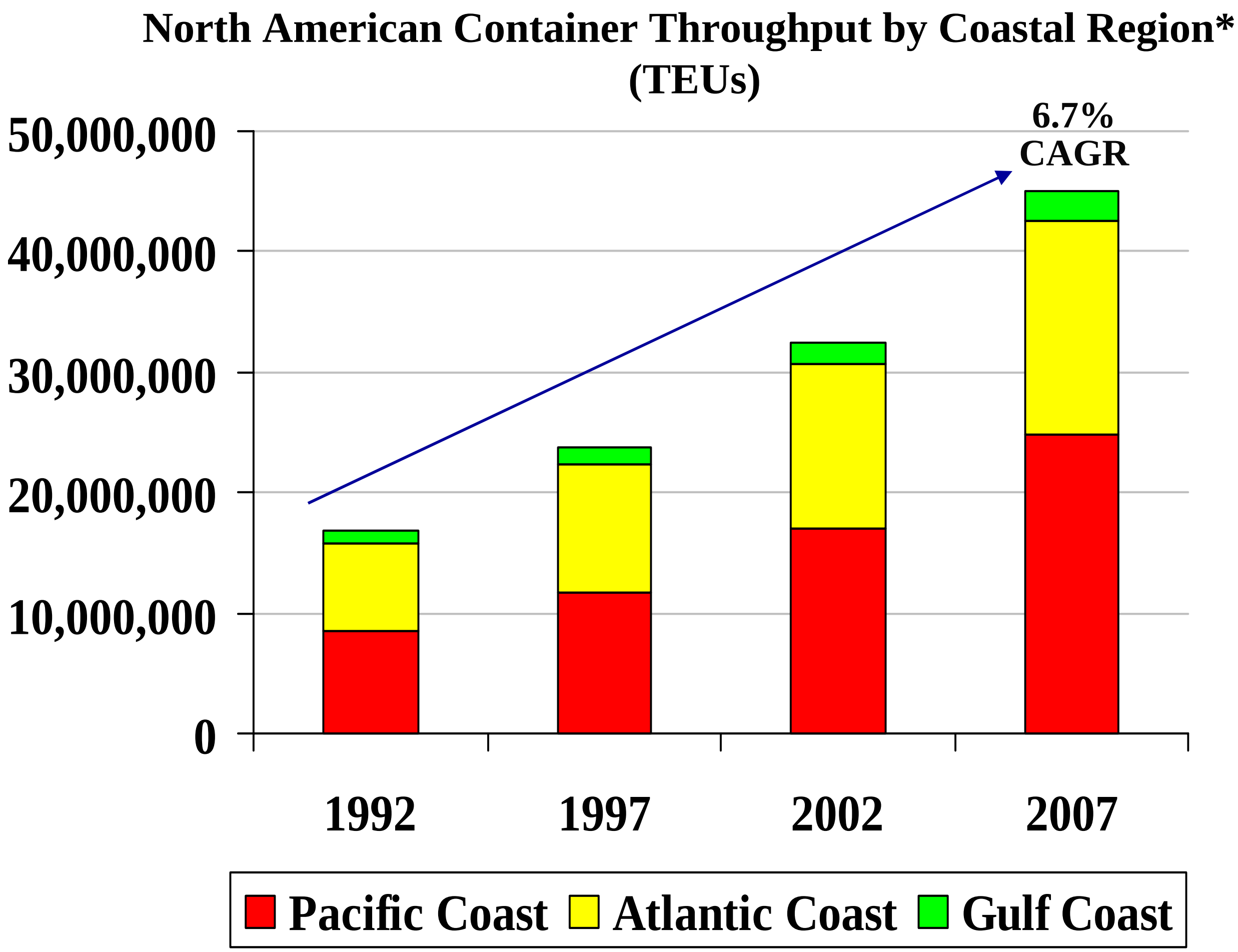
The container market assessment focuses on the following key areas:

- Trends in North American container traffic
- Trends in global container capacity
- Leading container carriers and industry concentration
- North American ports and industry concentration
- Key trends in Gulf Coast container traffic
- Port infrastructure
- Economics
- Implications for Louisiana

North American Container Market Today

- 45 million TEU market (2007)
  - US: 40.5M TEU (excludes AK, HI, and Puerto Rico)
  - Canada: 4.5M TEU
- 27 ports with over 100,000 TEUs
- These 27 ports represents over 95% of all North American container traffic
- Over 50 container carriers serving North America:
  - Top 10 handle 60% of all North American container traffic
  - Top 20 handle 87% of all North American container traffic
- 75+ major container terminals
- Louisiana: two ports, 0.4 million TEUs, three terminals

The North American container industry has seen sustained growth during the last 15 years. West Coast container traffic has grown the fastest.



15 Year CAGR:

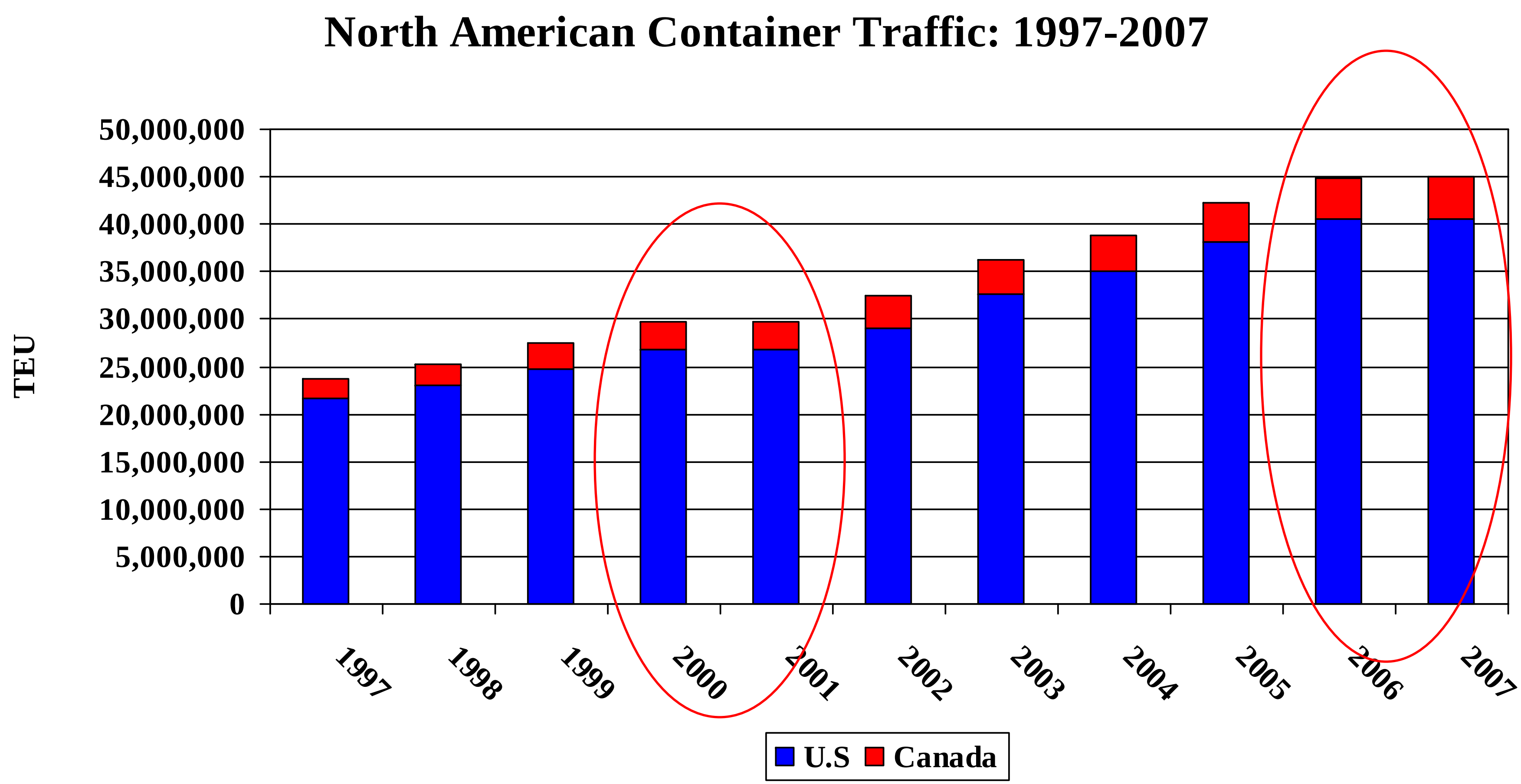
West Coast: **7.5%**
Atlantic Coast: **6.0%**
Gulf Coast: **5.4%**
All Coasts: **6.7%**

*Note: 1. Throughput is for top 25 U.S. and Canadian container ports, which account for more than 95% of all such flows.

2. Excludes AK, HI, Guam and Puerto Rico (largely domestic) traffic

Source: AAPA; Port Reported Throughput; Norbridge Analysis

Over the last 10 years, North American container traffic has been growing at a CAGR of 6.6%, with Canada (7.5% CAGR) growing faster than the U.S. (6.5% CAGR).

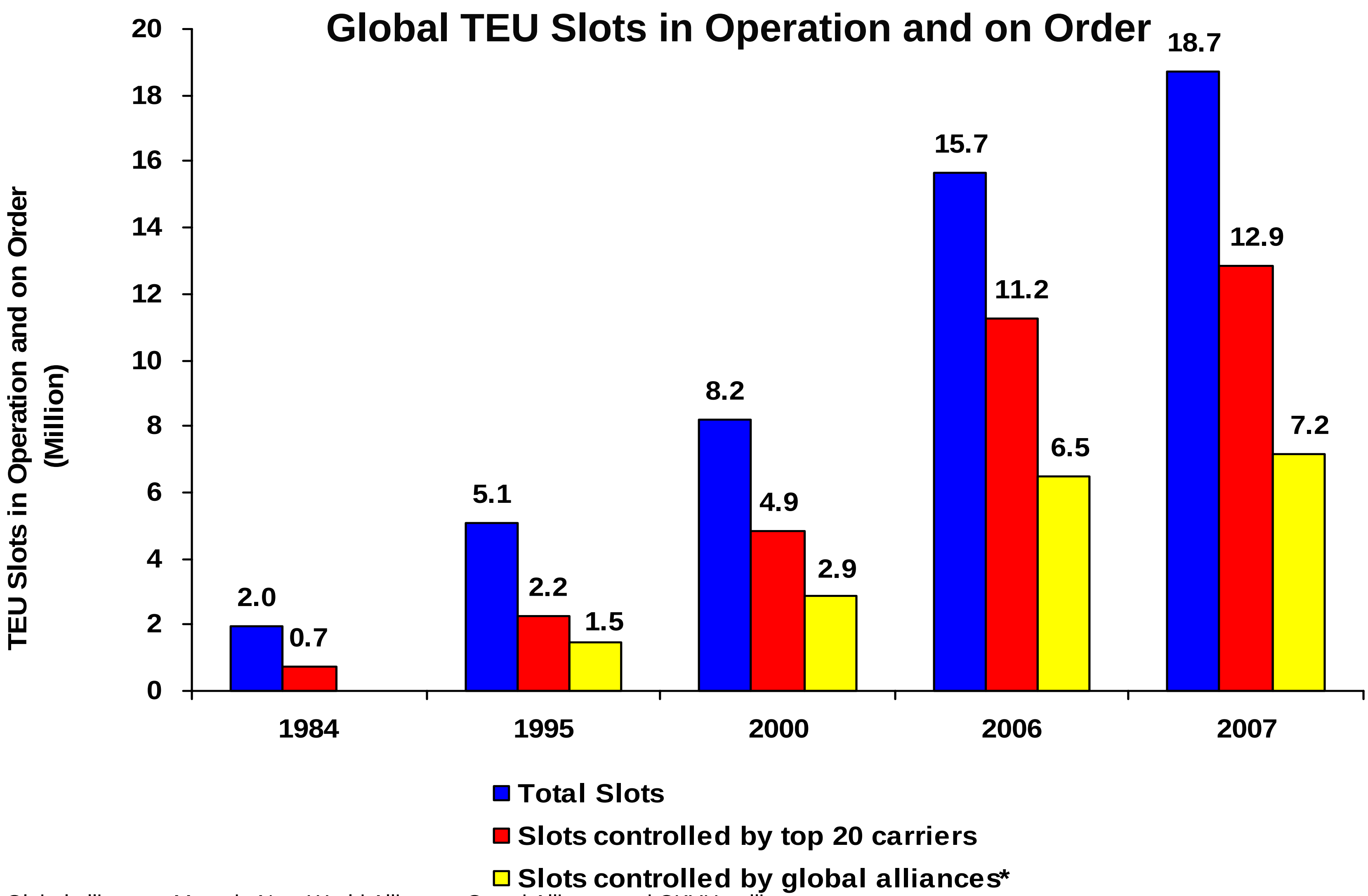


*Note: 1. Throughput is for top 25 U.S. and Canadian container ports, which account for more than 95% of all such flows.

2. Excludes AK, HI, Guam and Puerto Rico (largely domestic) traffic

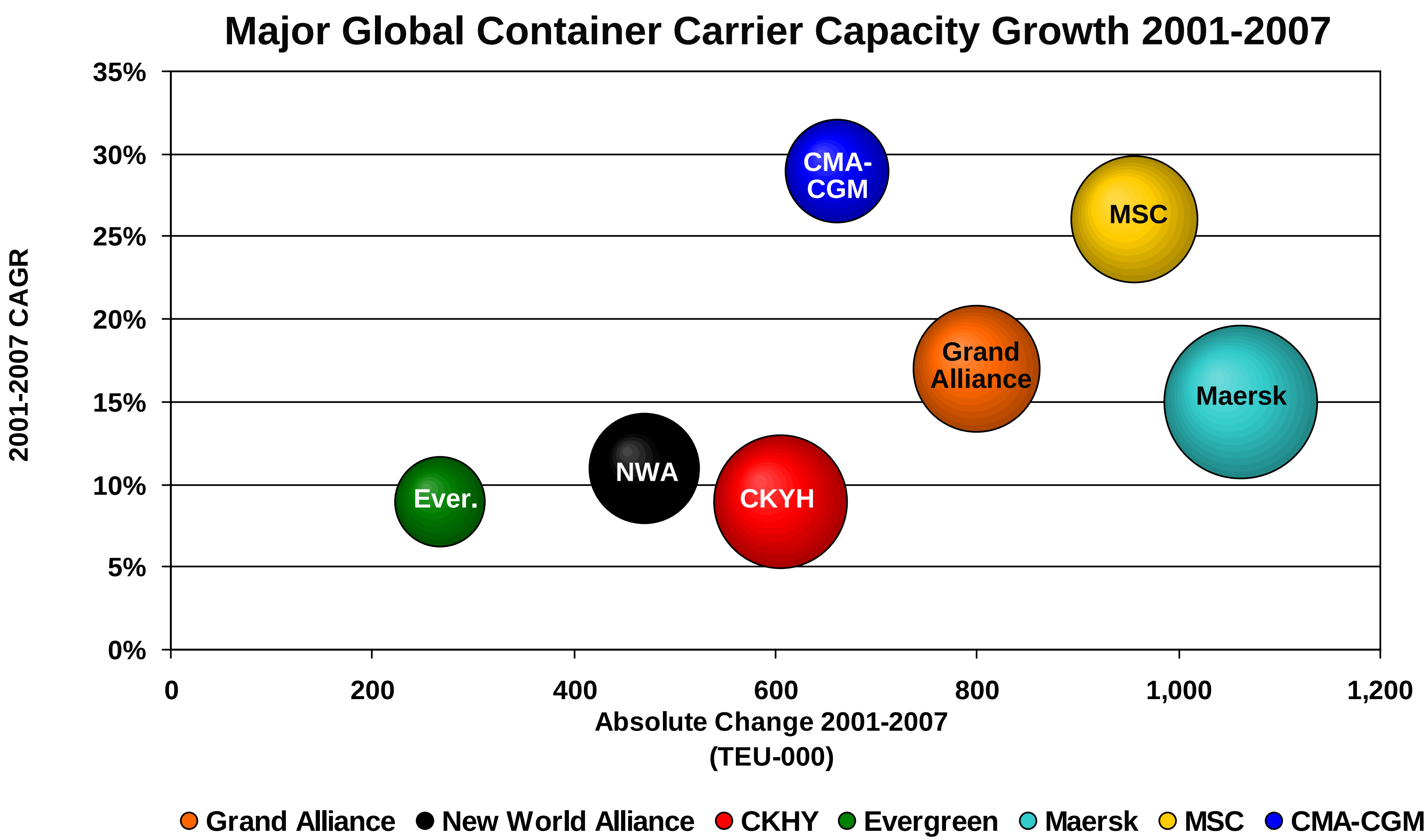
Source: AAPA; Port Reported Throughput; Norbridge Analysis

The global container industry is becoming increasingly concentrated with the top carriers controlling more of the capacity. Implication: fewer, larger customers with increased market leverage.



Note: Global alliances=Maersk, New World Alliance, Grand Alliance and CKYH alliance.
Source: Containerisation International 2008; Norbridge analysis

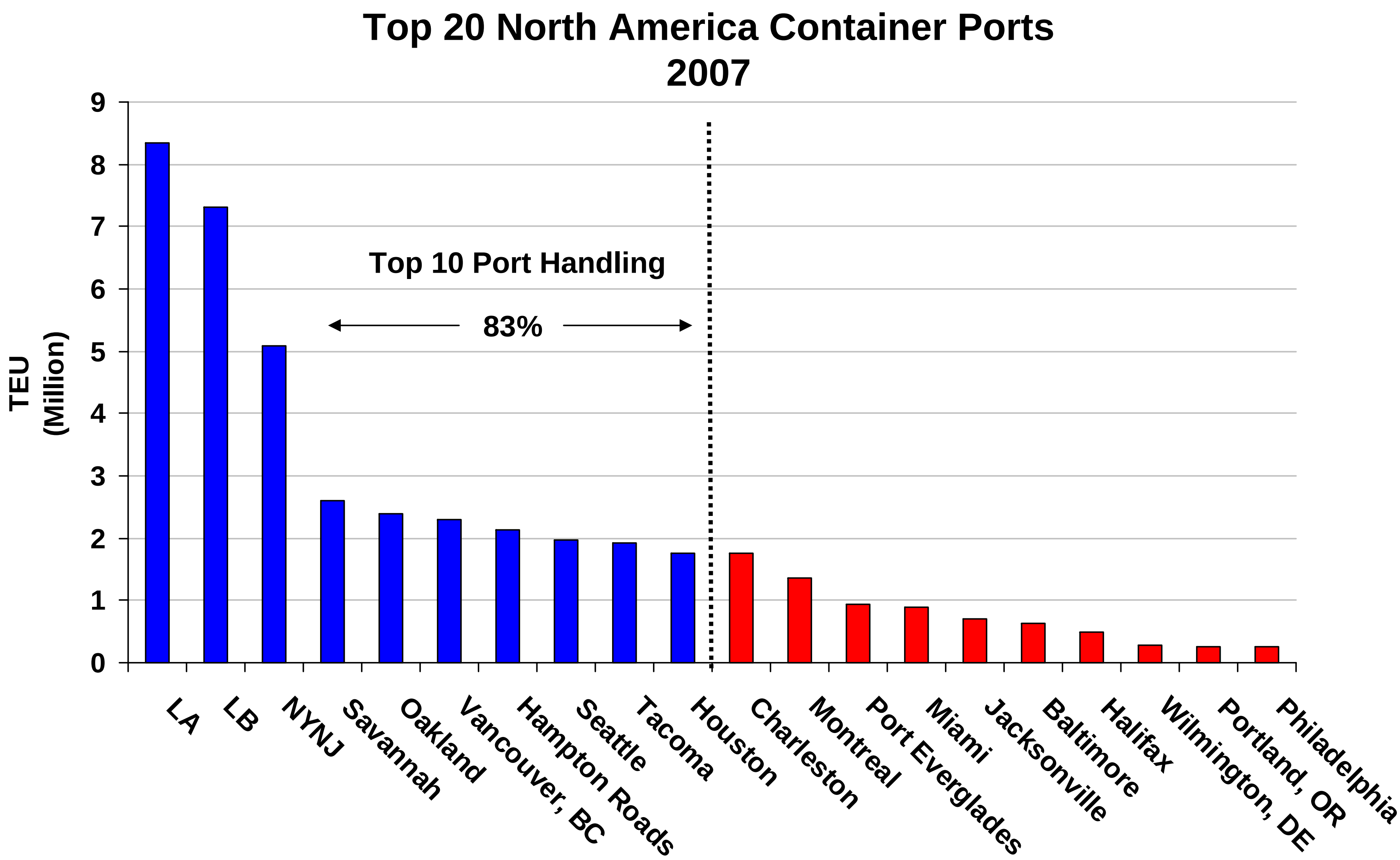
Major global container carriers continue to add capacity and are growing at significant rates.



Note: Bubble size indicates size of 2007 of TEUs in service by carrier.

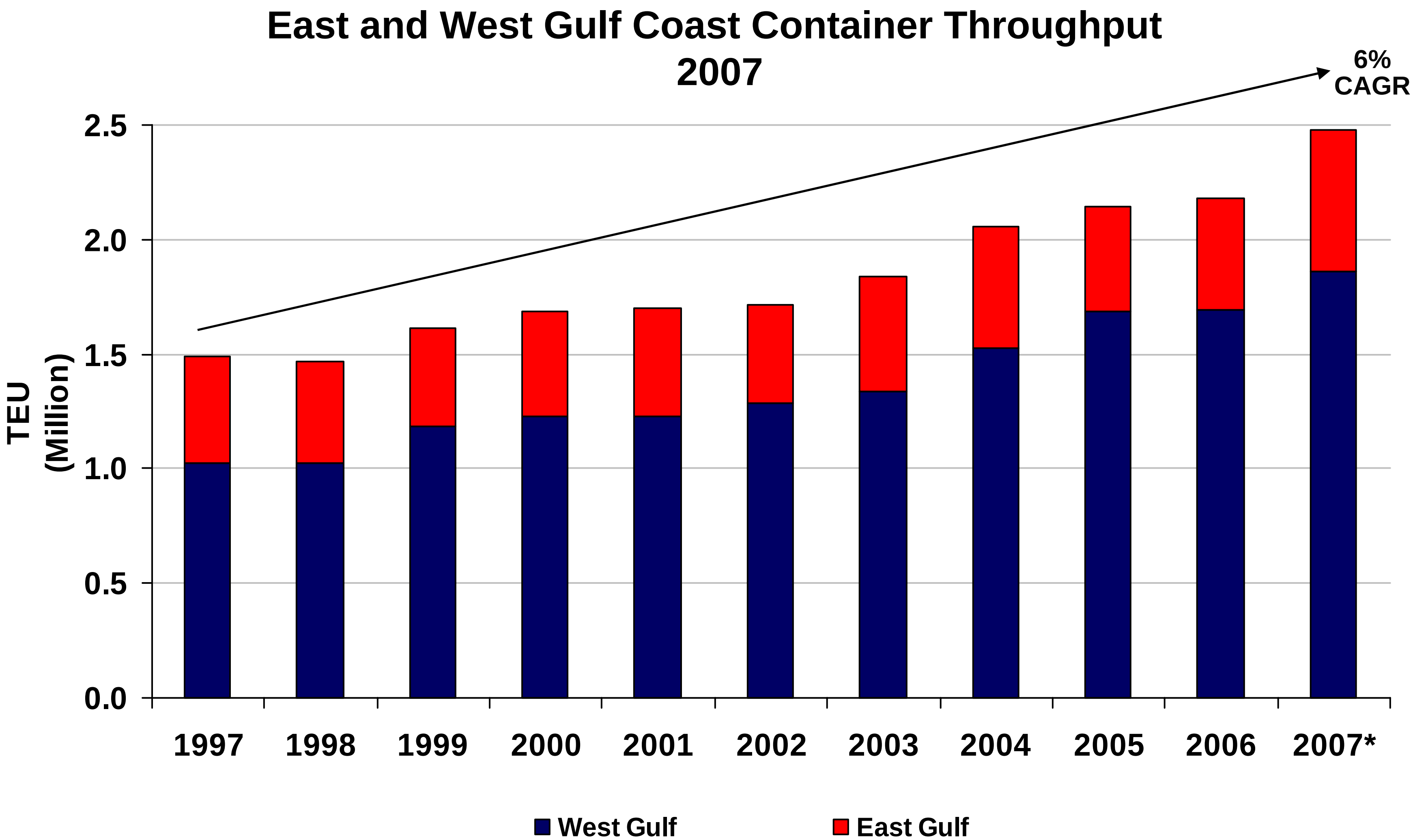
Source: Containerisation International 2008 and Norbridge analysis.

The North American container port industry is highly concentrated, with the top 10 ports handling nearly 85% of all traffic.



Note: NY/NJ, VA Ports, and Baltimore reported in 2006 throughput, as 2007 throughput not available. Source: AAPA 2007, port websites and Norbridge analysis.

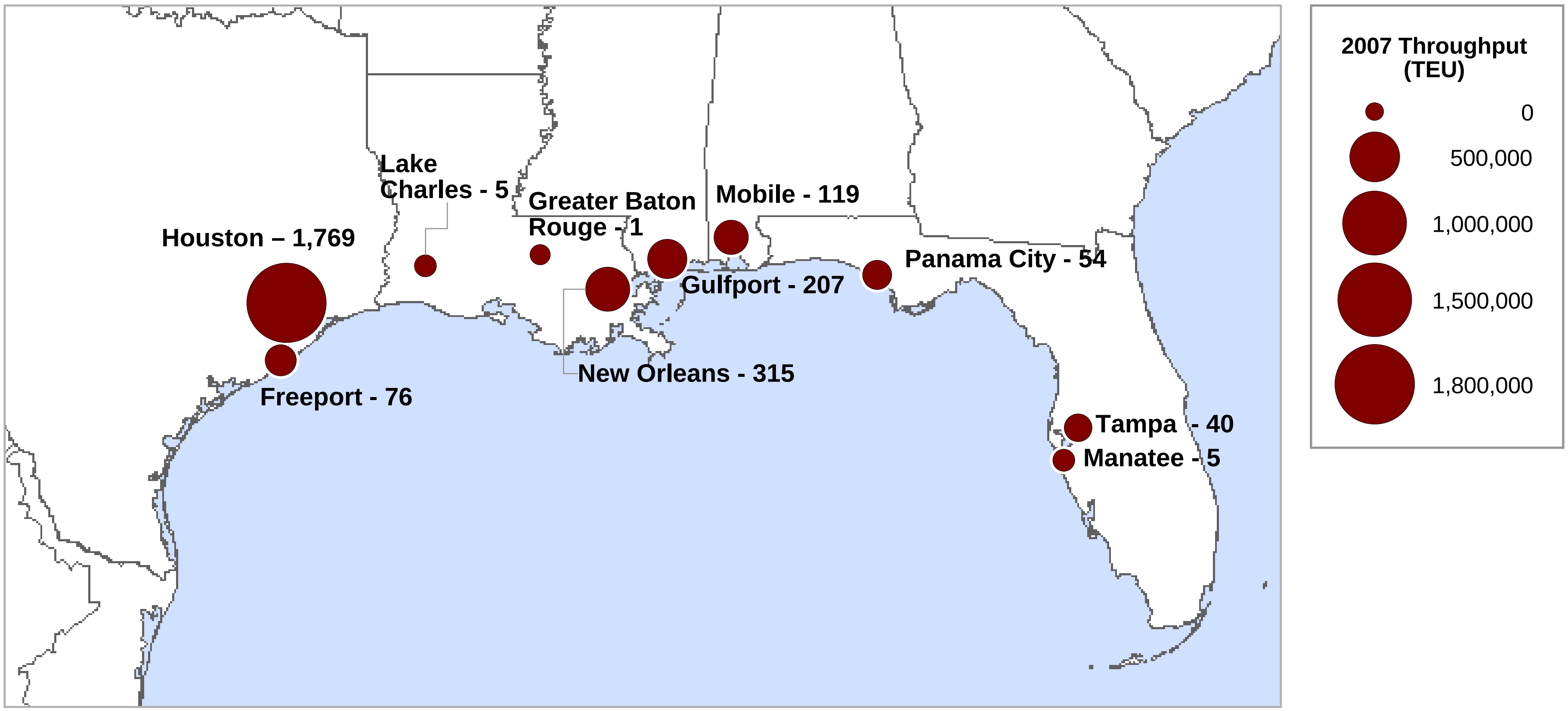
Over the last decade, the Gulf Coast container industry has been growing at a compound annual growth rate (CAGR) of 6%. This growth has been driven by an expansion in West Gulf traffic.



Note: East Gulf includes Gulfport, Manatee, Mobile, New Orleans, and Tampa. West Gulf includes Freeport, Galveston, Houston and Lake Charles.

*2007 data uses Galveston's 2006 throughput, as 2007 throughput not available.Source: AAPA 2007 and Norbridge analysis.

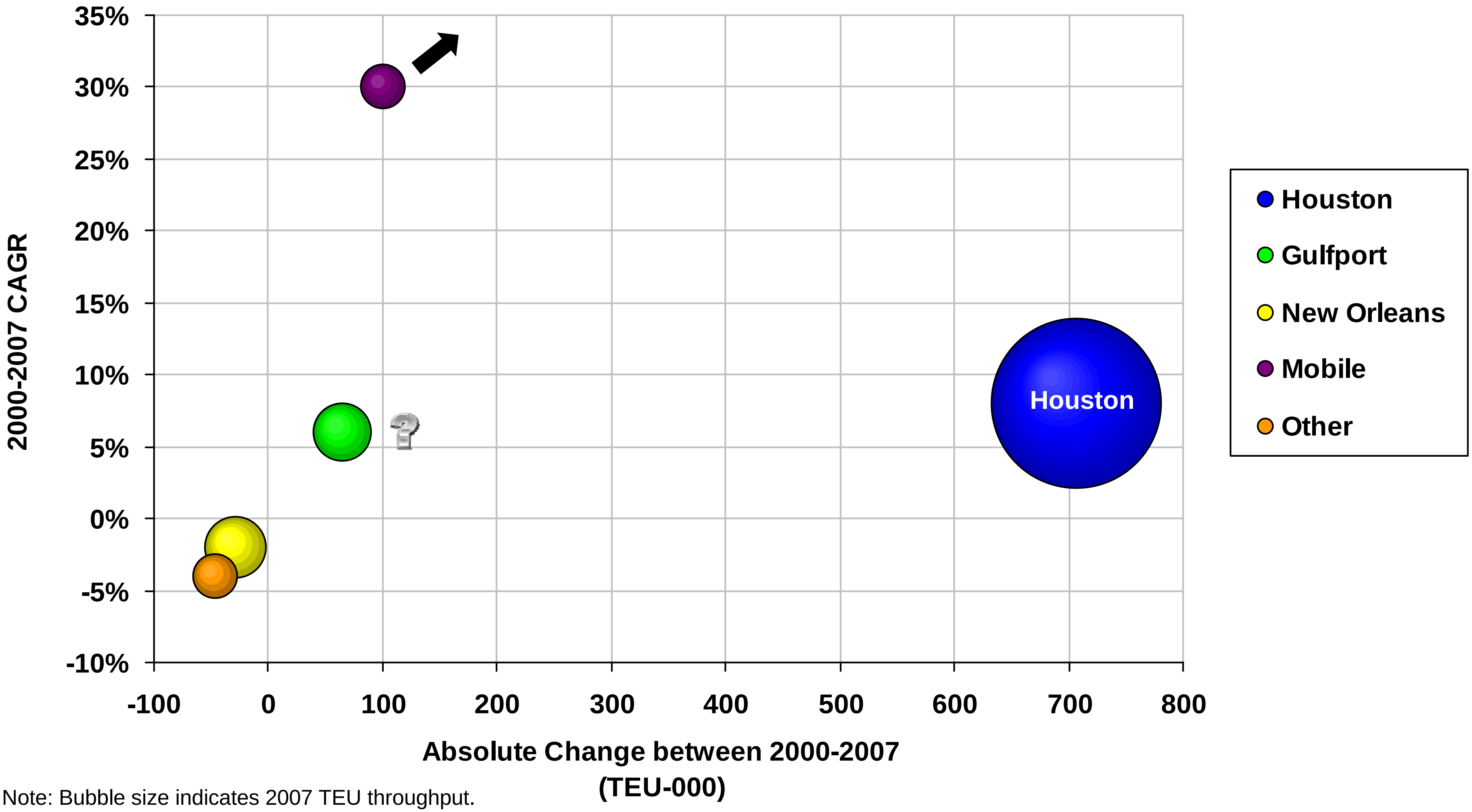
Houston was the Gulf Coast's leading container gateway in 2007.



Note: *Galveston= 2006 data; 2007 not available

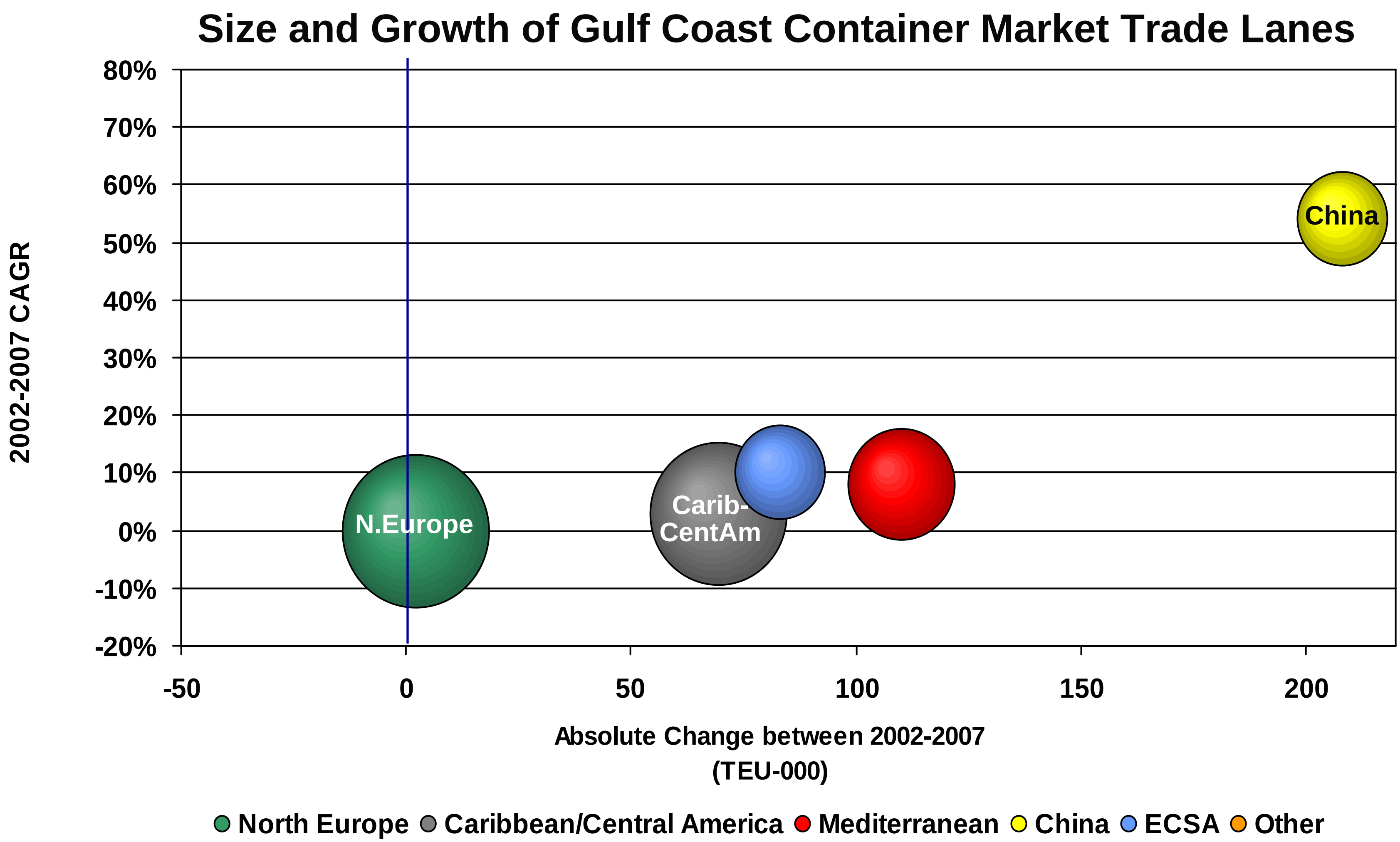
Source: AAPA 2007, American Shipper, and Norbridge analysis.

Houston has also been the fastest growing Gulf Coast port.



Note: Bubble size indicates 2007 TEU throughput.
"Other" includes Freeport, Galveston*, Lake Charles, Manatee, and Tampa. It excludes Greater Baton Rouge and Panama City due to insufficient data.
*Galveston=2006 data; 2007 not available. Source: AAPA 2007 and Norbridge analysis.

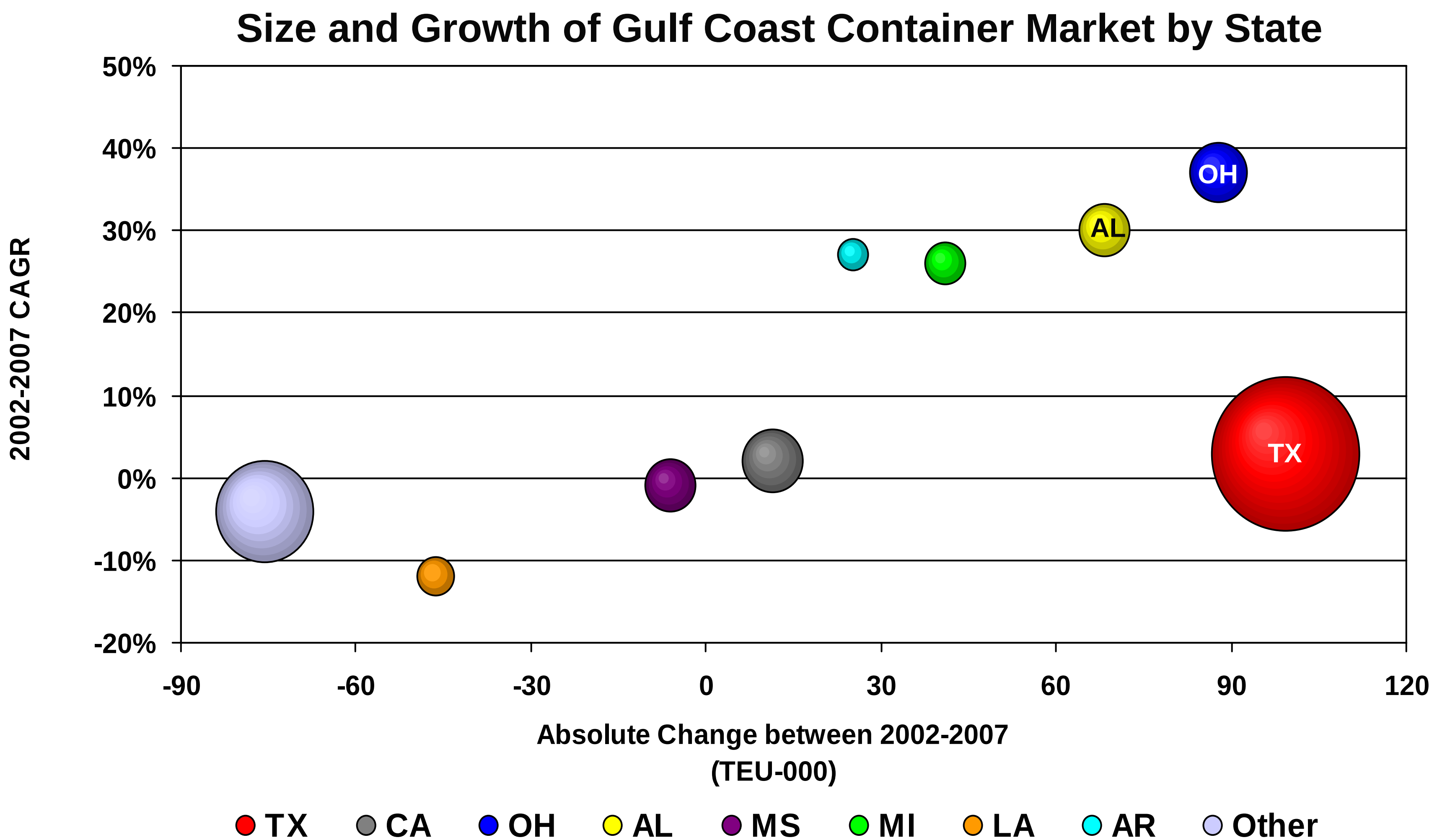
North Europe and Caribbean/Central America are the largest Gulf Coast trade lanes, while China trade is expanding rapidly.



Note: Bubble size indicates size of 2007 container market of each trade lane.
Gulf includes Beaumont, Corpus Christi, Freeport, Galveston, Gulfport, Houston, Lake Charles, Mobile, and New Orleans.

Source: JOC PIERS 2007 and Norbridge analysis.

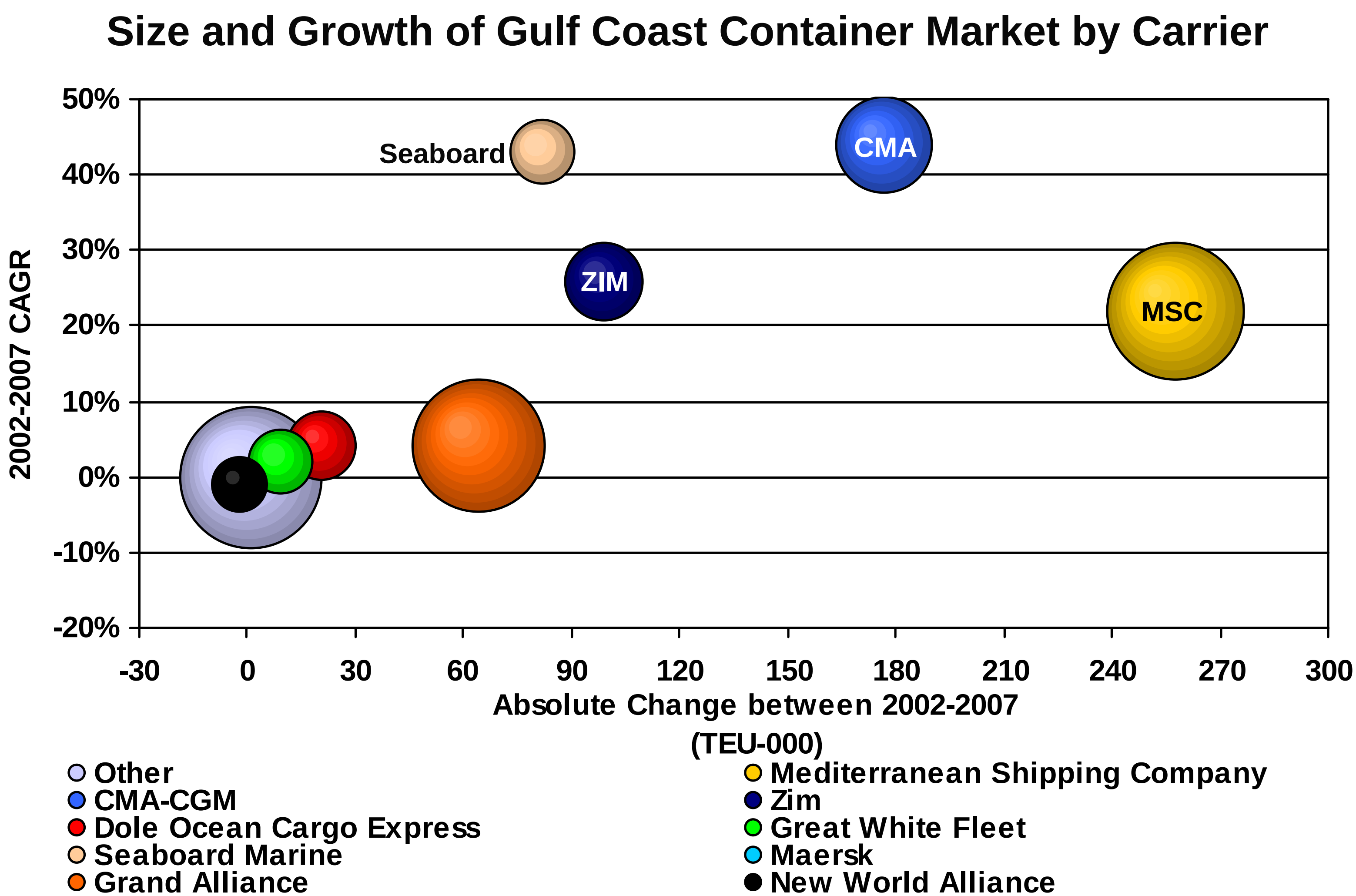
Texas is the Gulf Coasts' largest container market. OH and AL are smaller markets but growing rapidly. The accuracy of the Ohio data may be questionable, given the limitations of the PIERs data.



Note: Bubble size indicates size of 2007 container market of each trade lane.
Gulf includes Beaumont, Corpus Christi, Freeport, Galveston, Gulfport, Houston, Lake Charles, Mobile, and New Orleans.

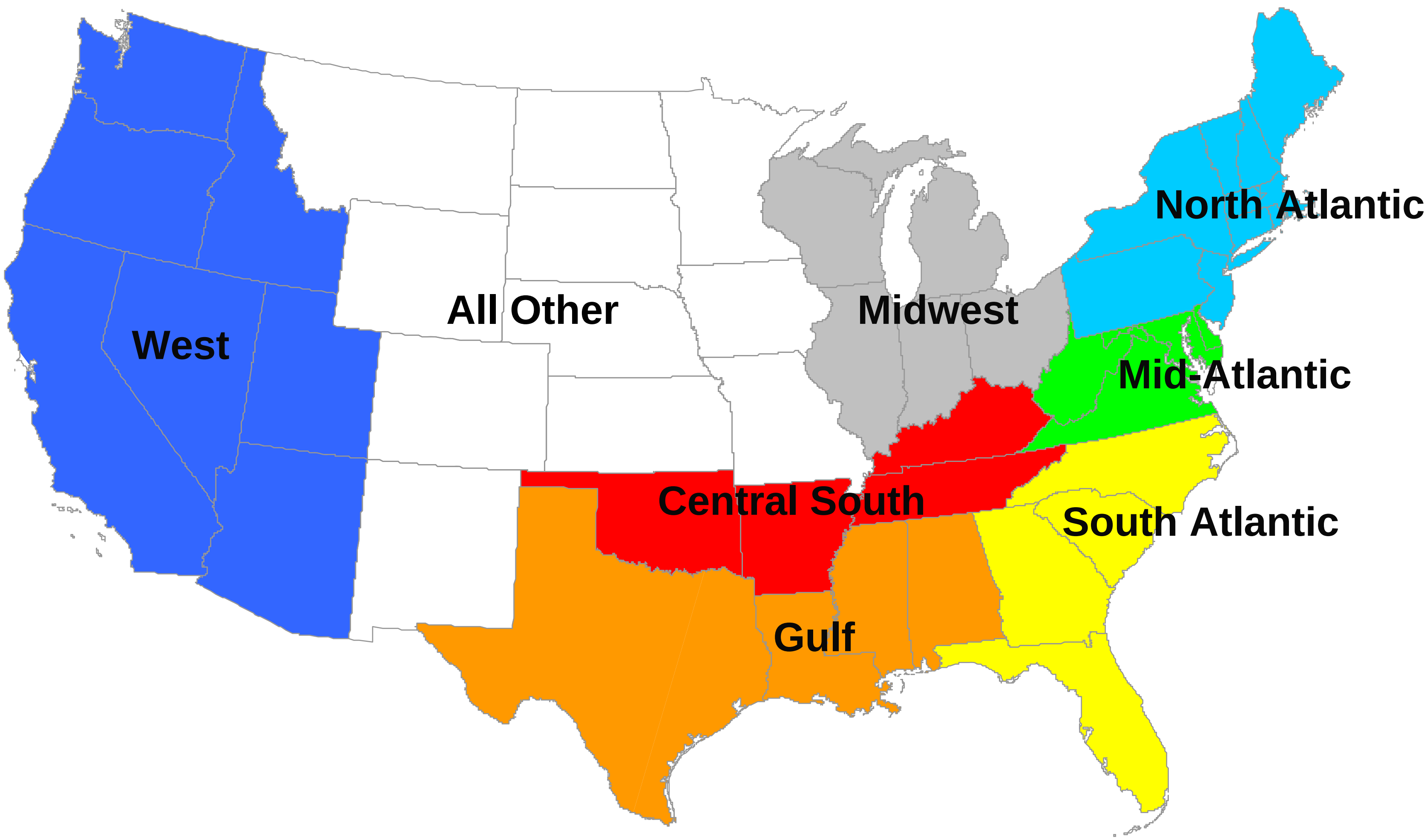
Source: JOC PIERS 2007 and Norbridge analysis.

Four carriers, CMA-CGM, Seaboard Marine, Zim, and MSC, have experienced significant growth in Gulf traffic. Other carrier growth has been modest.

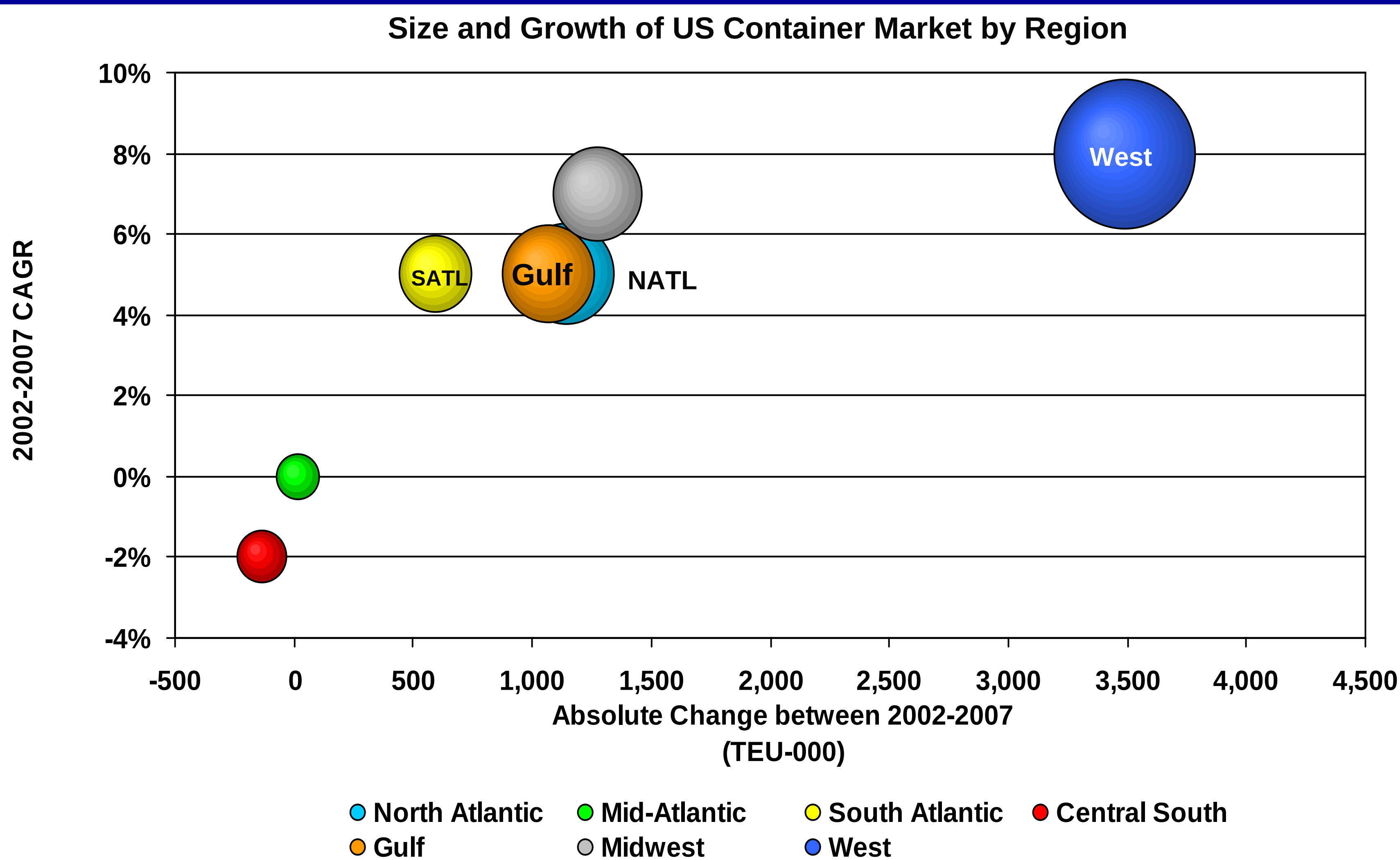


Note: Bubble size indicates size of 2007 container market of each carrier. "Other" includes 80+ various other shipping lines.
Source: JOC PIERS 2007 and Norbridge analysis.

U.S. geographic regions discussed in the next section are highlighted below.



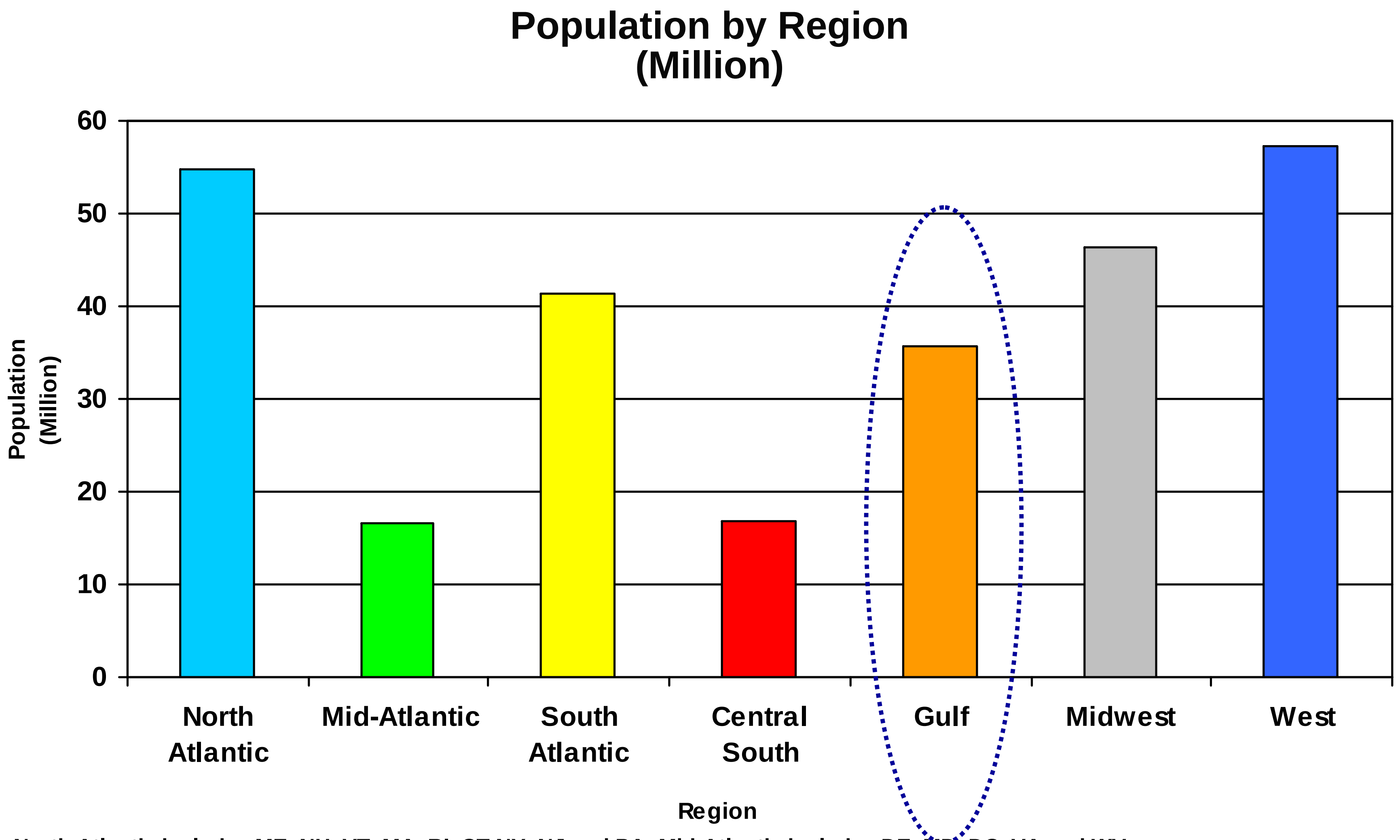
The West is the largest and fastest growing U.S. container market (8%CAGR, 2002-2007). The Gulf, North Atlantic and South Atlantic regions have been growing at comparable annual rates (5% CAGR).



Note: Bubble size indicates size of 2007 container market of each region.
North Atlantic includes ME, NH, VT, MA, RI, CT,NY, NJ and PA; Mid-Atlantic includes DE, MD, DC, VA and WV; South Atlantic includes NC, SC and GA; Central South includes KY, TN, AK and OK; Gulf includes FL, AL, MS, LA and TX; Midwest includes OH, IN, IL, MI, WI; and West includes ID, AZ, UT, WA, OR and CA.

Source: JOC PIERS 2002 and 2007, and Norbridge analysis.

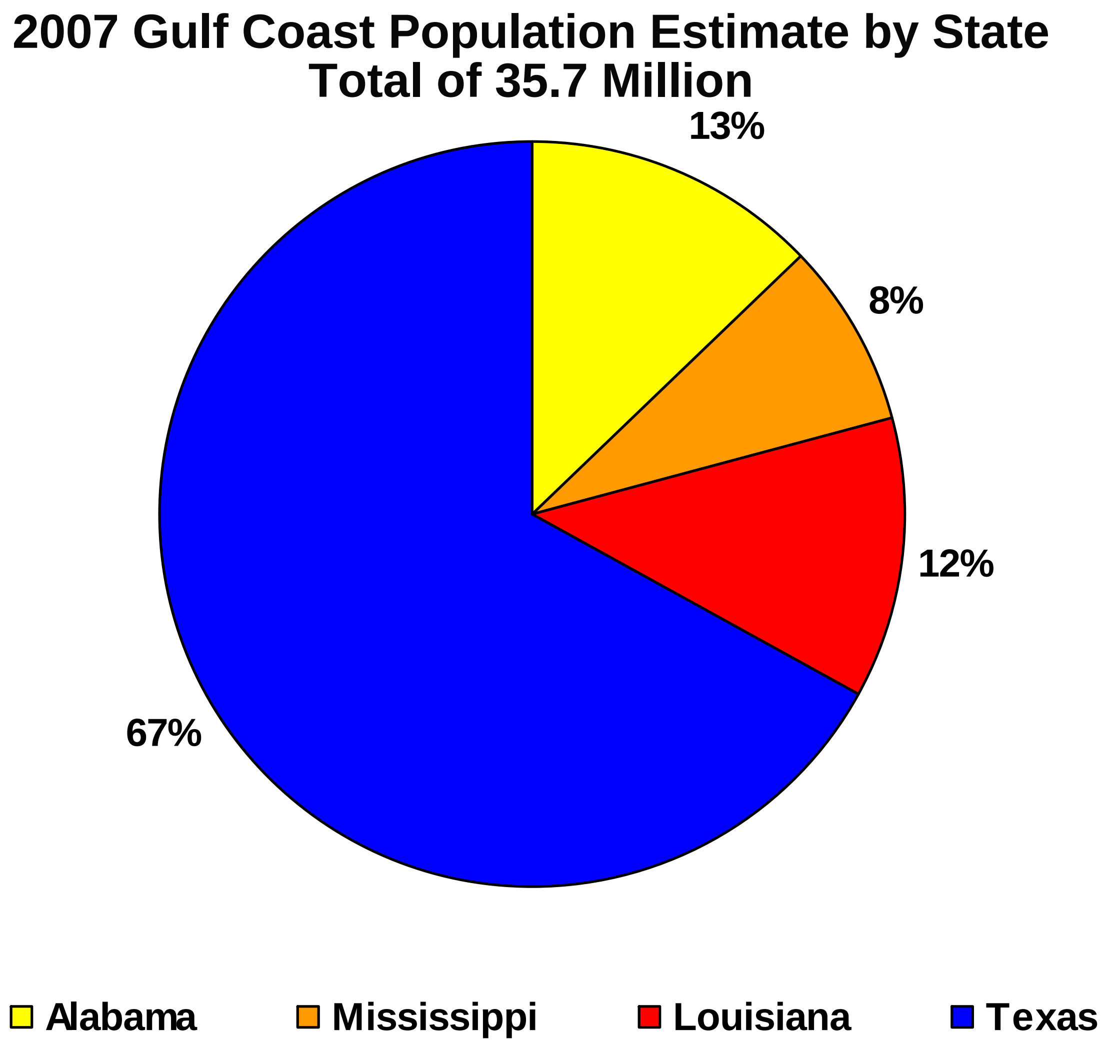
The Gulf region had an estimated population of 35 million in 2007.



Note: North Atlantic includes ME, NH, VT, MA, RI, CT,NY, NJ and PA; Mid-Atlantic includes DE, MD, DC, VA and WV; South Atlantic includes NC, SC and GA; Central South includes KY, TN, AK and OK; Gulf includes FL, AL, MS, LA and TX; Midwest includes OH, IN, IL, MI, WI; and West includes ID, AZ, UT, WA, OR and CA.

Source: U.S. Census Bureau's July 2007 population estimates.

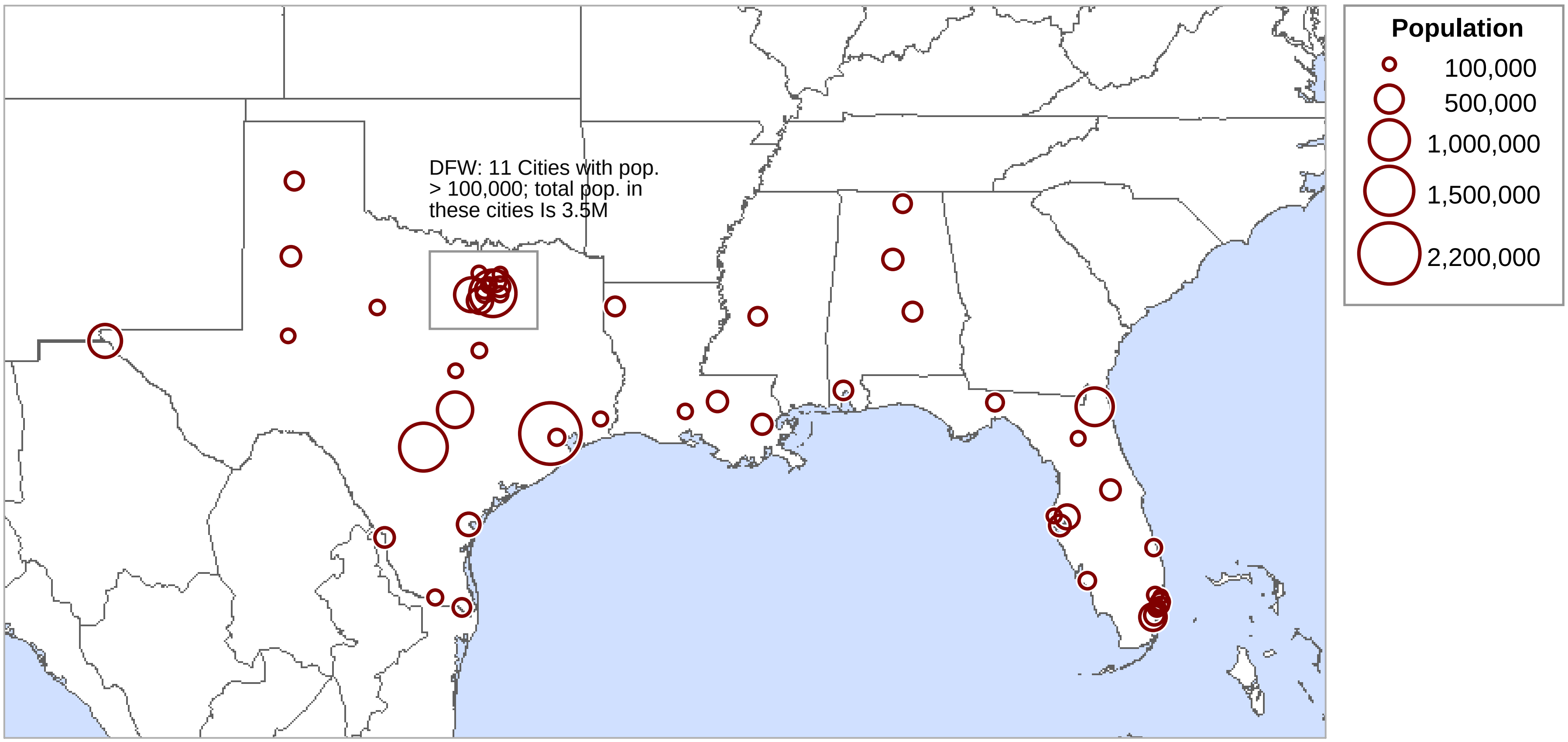
Texas has the largest population in the Gulf Coast.



Note: Gulf includes FL, AL, MS, LA and TX.

Source: U.S. Census Bureau's July 2007 population estimates.

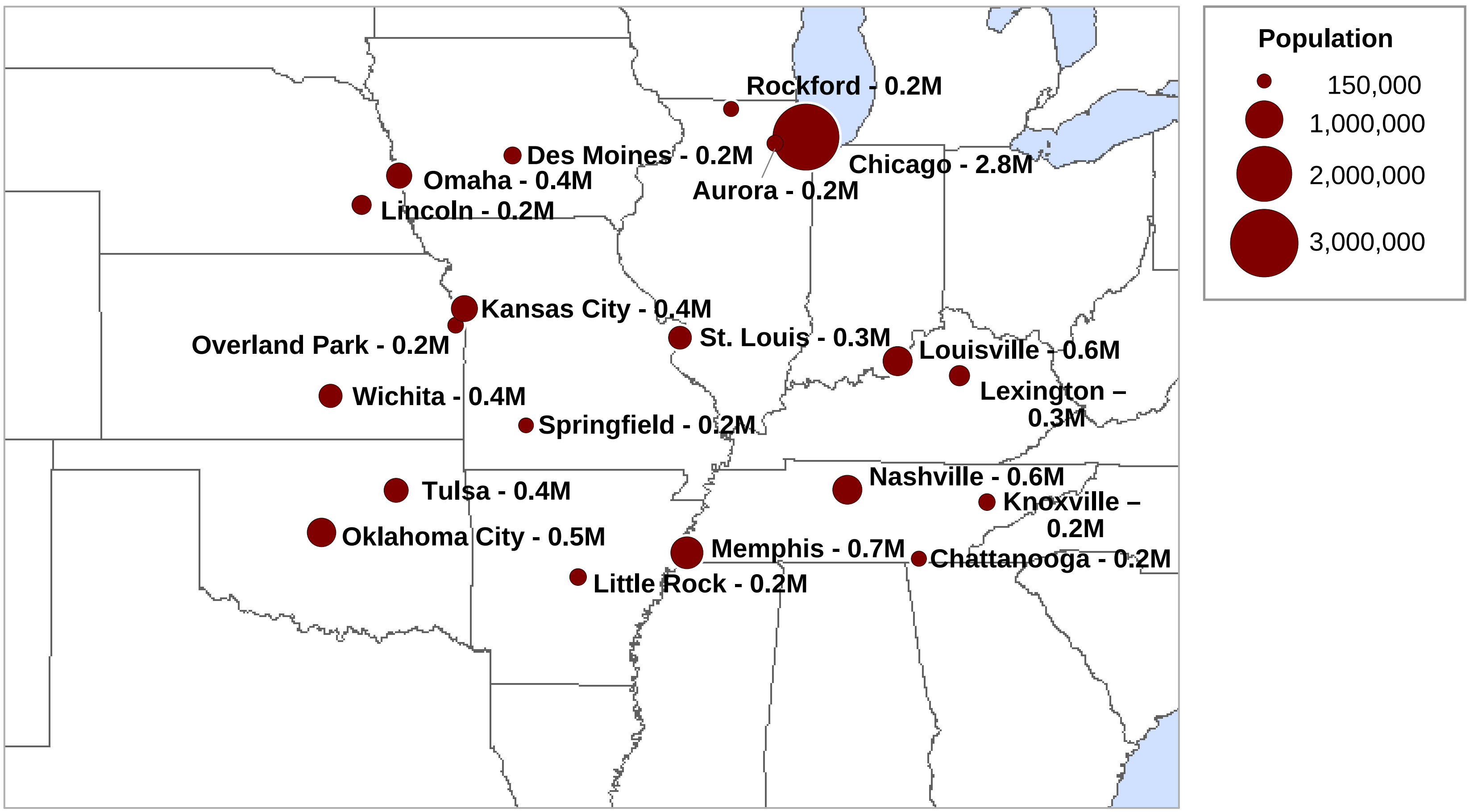
Gulf Coast cities with populations greater than 100,000 (2006) are potentially attractive container markets.



Note: Cities on this map all have populations over 100,000.

Source: U.S. Census Bureau's July 2006 population estimates.

Other potential Midwest markets for Gulf Coast container traffic are highlighted below.



Note: Cities on this map all have populations over 100,000.

Source: U.S. Census Bureau's July 2006 population estimates.

Houston has the most capable Gulf Coast container terminal infrastructure.

Gulf Coast Port Infrastructure Summary

Area	Houston	Mobile Container Terminal	New Orleans (Napoleon Avenue Container Terminal)
Terminal Acreage	315	135 (at full buildout)	61
Channel Depth (feet)	45	45	45
Berth Depth (feet)	40	45	40
Berth Length (feet)	8,000	2,000	1,400
# of Reported Container Berths	9	2	2
Rail Service Providers	BNSF, UP	CSX, CN, NS, BNSF, KCS	CSX, CN, NS, BNSF, IC
# of Container Gantry Cranes	16	2	4

Source: CI; AAPA Seaports of the Americas, Port Websites, Norbridge Analysis

Mobile and Houston have the shortest rail distances to major inland markets.

Gulf Coast Port Distances to Major Inland Destinations

City, State	Port of Mobile	Port of New Orleans	Port of Houston
Chicago, IL	**930**	**936**	**1,125**
Memphis, TN	**414**	**413**	**620**
Louisville, KY	**664**	**798**	**1,038**
Nashville, TN	**478**	**615**	**852**
Oklahoma City, OK	**878**	**758**	**470**
Kansas City, KS	**919**	**881**	**806**
Omaha, NE	**1,112**	**1,077**	**1002**
Tulsa, OK	**897**	**841**	**548**
Wichita, KS	**1.081**	**911**	**645**
St. Louis, MO	**729**	**737**	**853**

Indicates lowest rail mileage

Note: Rail miles are in intermodal miles, which calculate the best route for intermodal trains. Highlighted cells represent shortest routes.

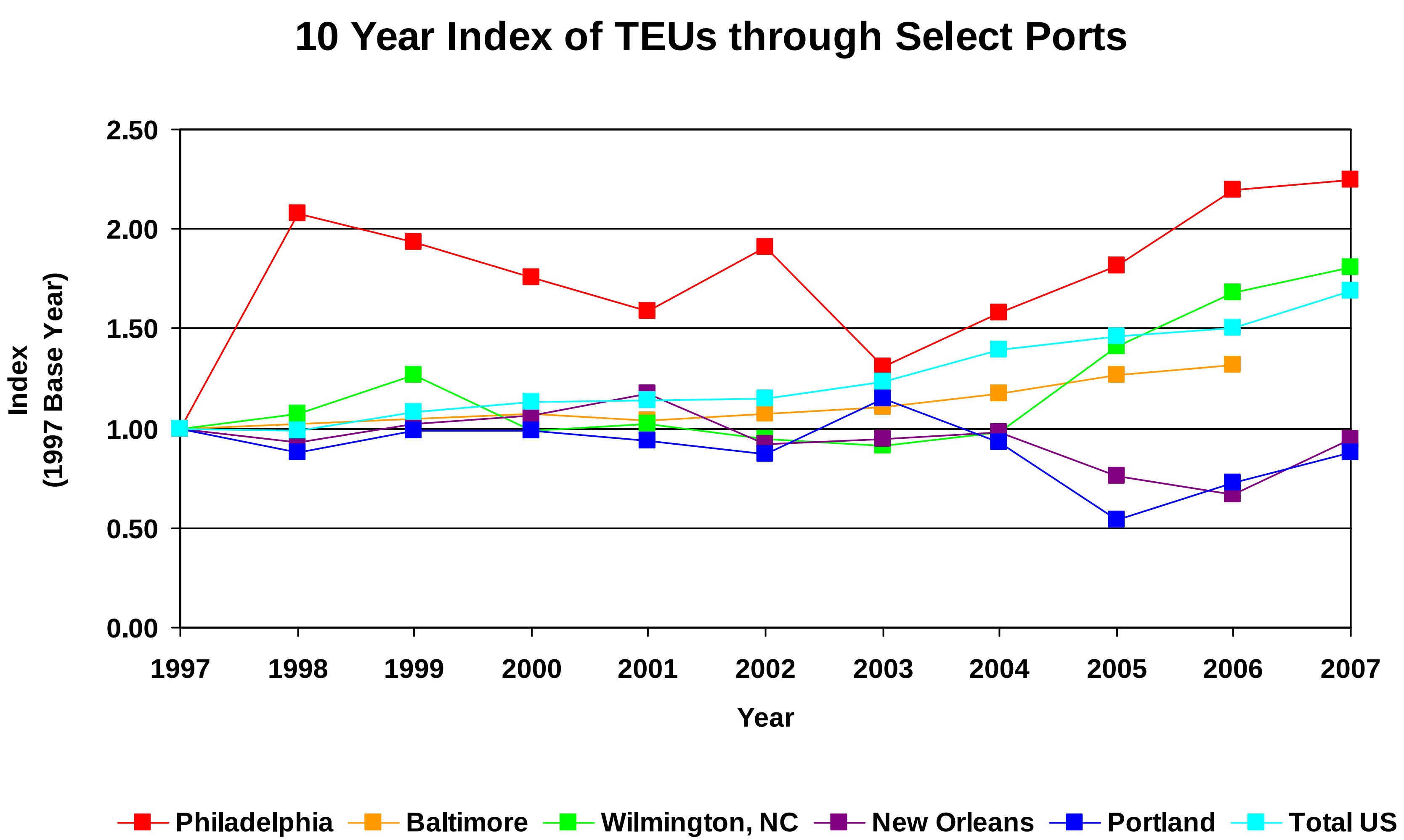
Source: PC Rail.

New and proposed Gulf Coast container terminals provide significant competition for the region's container traffic.

	Port of Mobile	Port of Houston	Port of Corpus Christi (proposed)
Name of Terminal	Mobile Container Terminal	Bayport Container Terminal	La Quinta Trade Gateway
Owner	APM Terminals North America & Terminal Link	Port of Houston Authority	Port of Corpus Christi
Operators	Mobile Container Terminal LLC	Port of Houston Authority	Port of Corpus Christi
Current Status	Expected to open summer of 2008. Completed phase one of 95 acres.	Opening phase of Bayport became operational in January 2007. 89 acres completed.	Initial stage: seeking additional partners in project and re-conducting market studies.
Acres	135 acres upon completion.	Approximately 1,000 acres total. This includes 376 acres of container yard and a 123-acre intermodal facility.	1,100 acres have been purchased.
Rail	Access to 5 Class I Railroads; on terminal rail available.	On-dock rail with connection to all major destinations will be available.	Direct connection to Union Pacific. 5,000' of on dock rail tracks.
Depth	45' channel depth	N.A.	39' channel depth
Berth	Two 1,000' berths	7 berths total	Uncertain; however, 3,800' shoreline available.
Future Phases	Currently in final phase.	Expected to be completed in 2030.	N.A.

N.A. Not Available
Source: LexisNexis and port websites.

Most niche river-based container ports have grown more slowly than the total U.S. container market during the past ten years



Note: 2007 data for Baltimore not available.
Source: AAPA data, and Norbridge analysis.

The following major container market trends are discussed next:

- **Containership Growth**
- **Panama Canal Expansion**
- **Major Port Expansions**

Container ships continue to grow in size. The largest container ship today can hold about 14,000 TEUs.

Largest today:

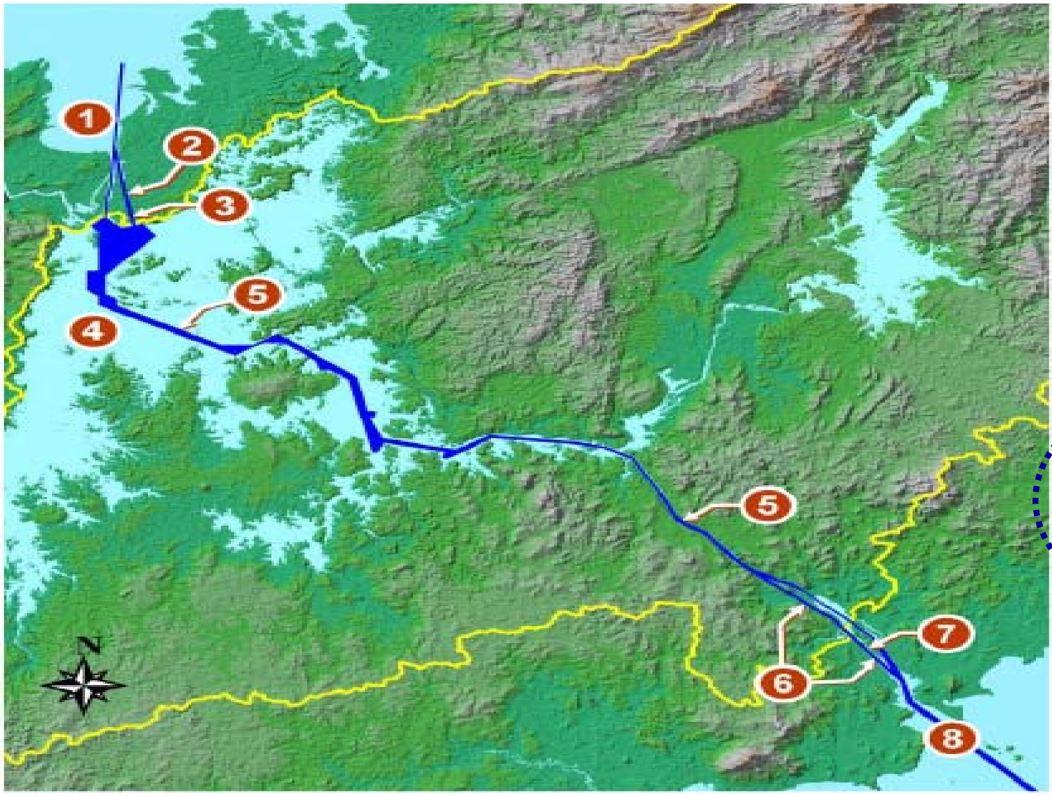
Emma Maersk **(14,000 TEU, 2006)**

Panama Canal limit today:

4,500 TEU

Source: Norbridge research and analysis

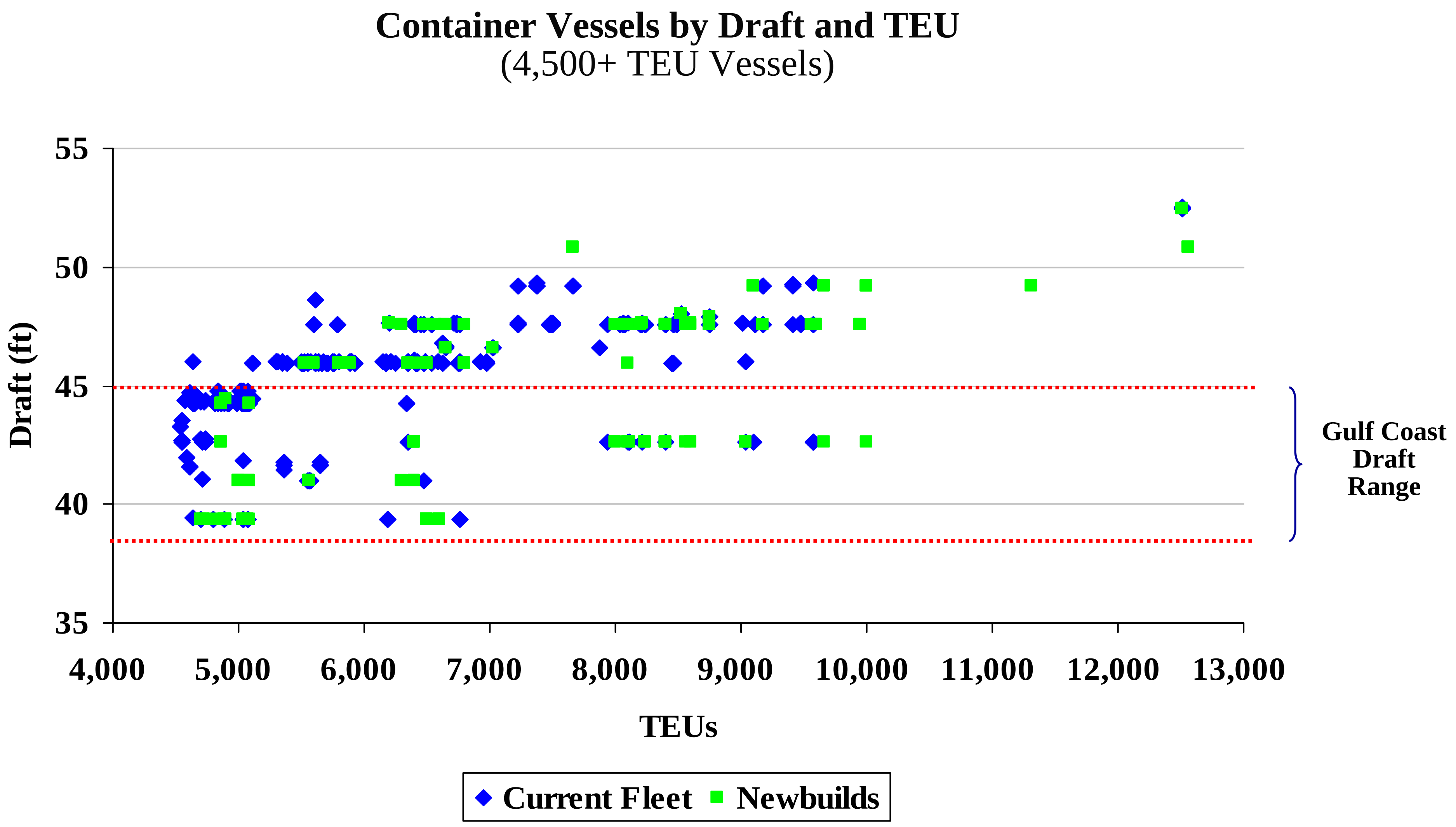
Panama Canal expansion will permit larger ships and likely increase all-water container flows by 2014.



- Complete: 2014
- Cost: $5.25 billion
- New locks at both ends
- Lock capacity:
  - 4,500 TEU vessel today
  - 12,000 TEU vessel 2014
- Container traffic growth:
  - 8 containerships/day today
  - 24 containerships/day in 2025

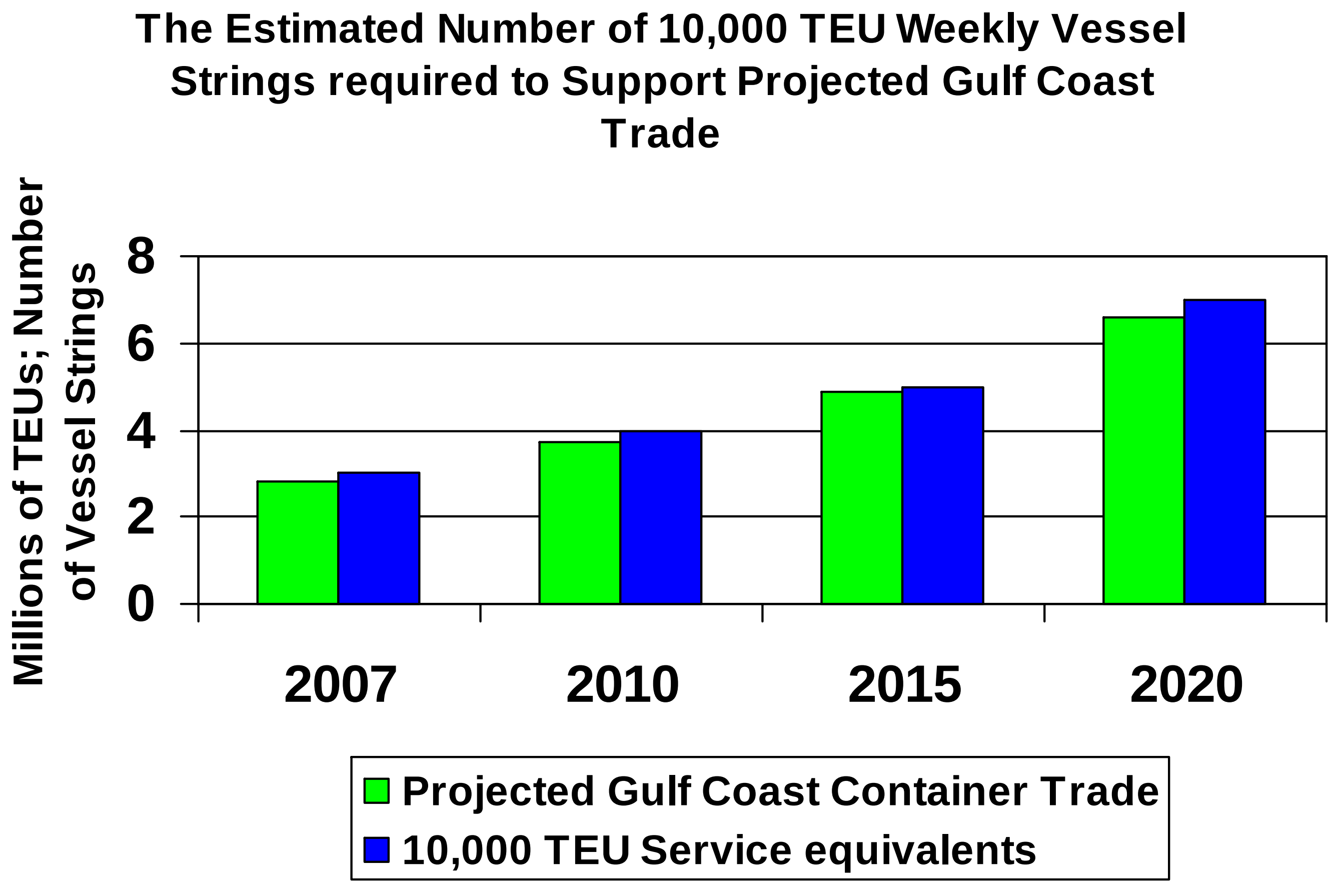
Source: Norbridge research and analysis

Issue: Gulf Coast depth is insufficient to handle the vast majority of both current and future large container ships (8,000 TEU and larger) which will potentially be navigating the expanded Panama Canal.

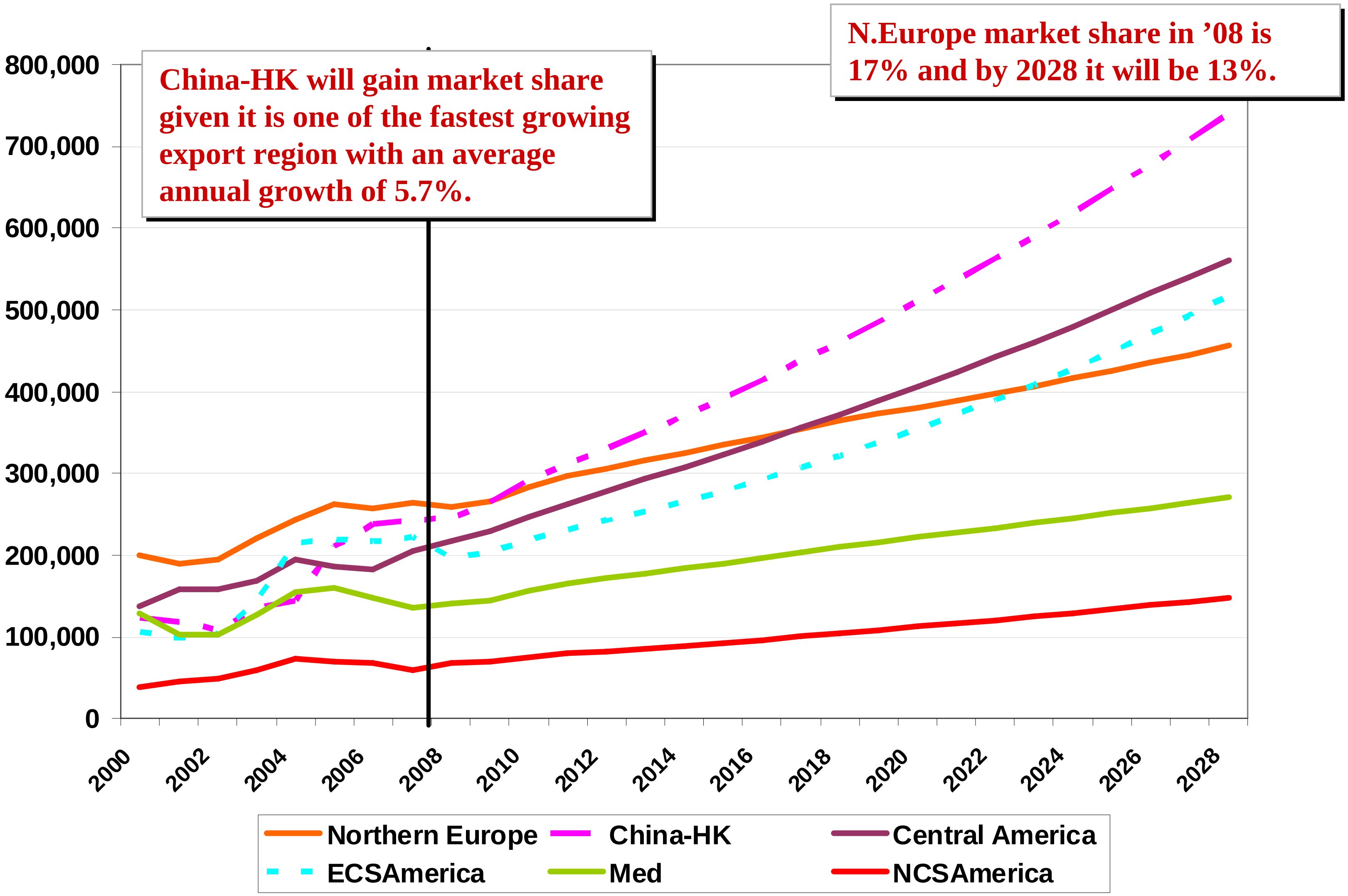


Source: June 2007 Lloyd's Fairplay; Norbridge research and analysis

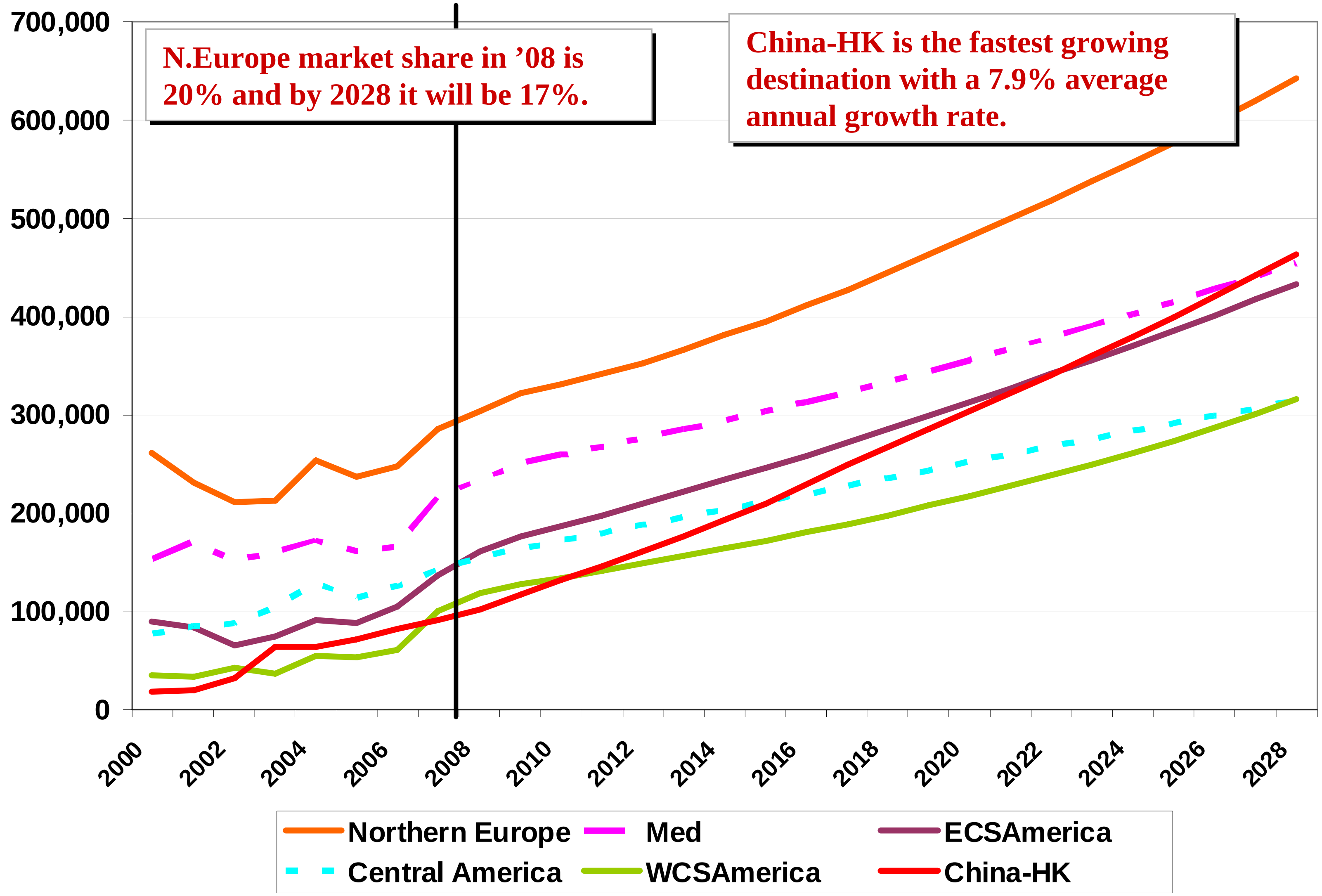
The Gulf Coast container market will most likely not be able to support the extensive deployment of 10,000 TEU ships.



US Gulf imports from China-Hong Kong are forecasted to grow rapidly out to 2030.

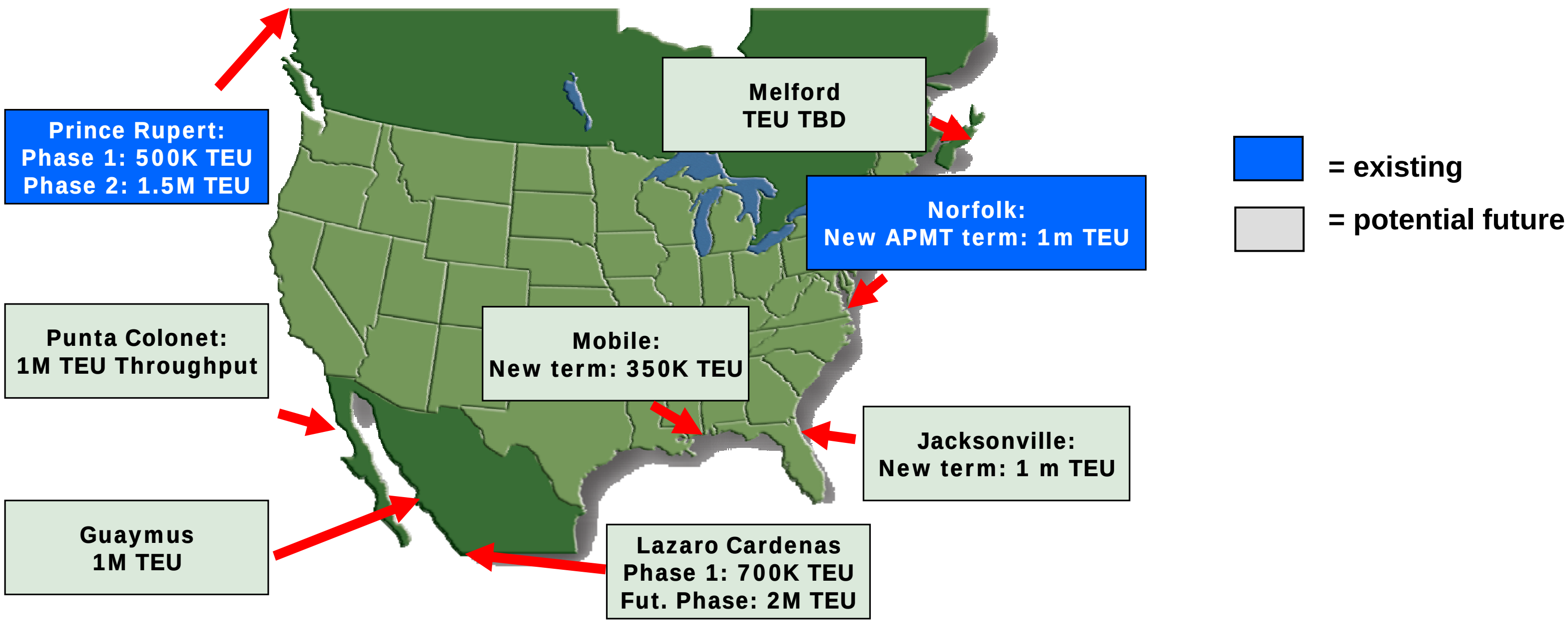


China-Hong Kong is expected to be the fastest growing Gulf coast export container market.



There are a number of port expansions (recent and potential) which will impact future container flows.

- Key US ports are investing to accommodate demand:
  - LA: 190 new acres of terminal storage by 2009
  - LB: 200 acres of terminal storage by 2012
  - NY: Dredging will increase channel depth to 50’
- New container gateways are opening



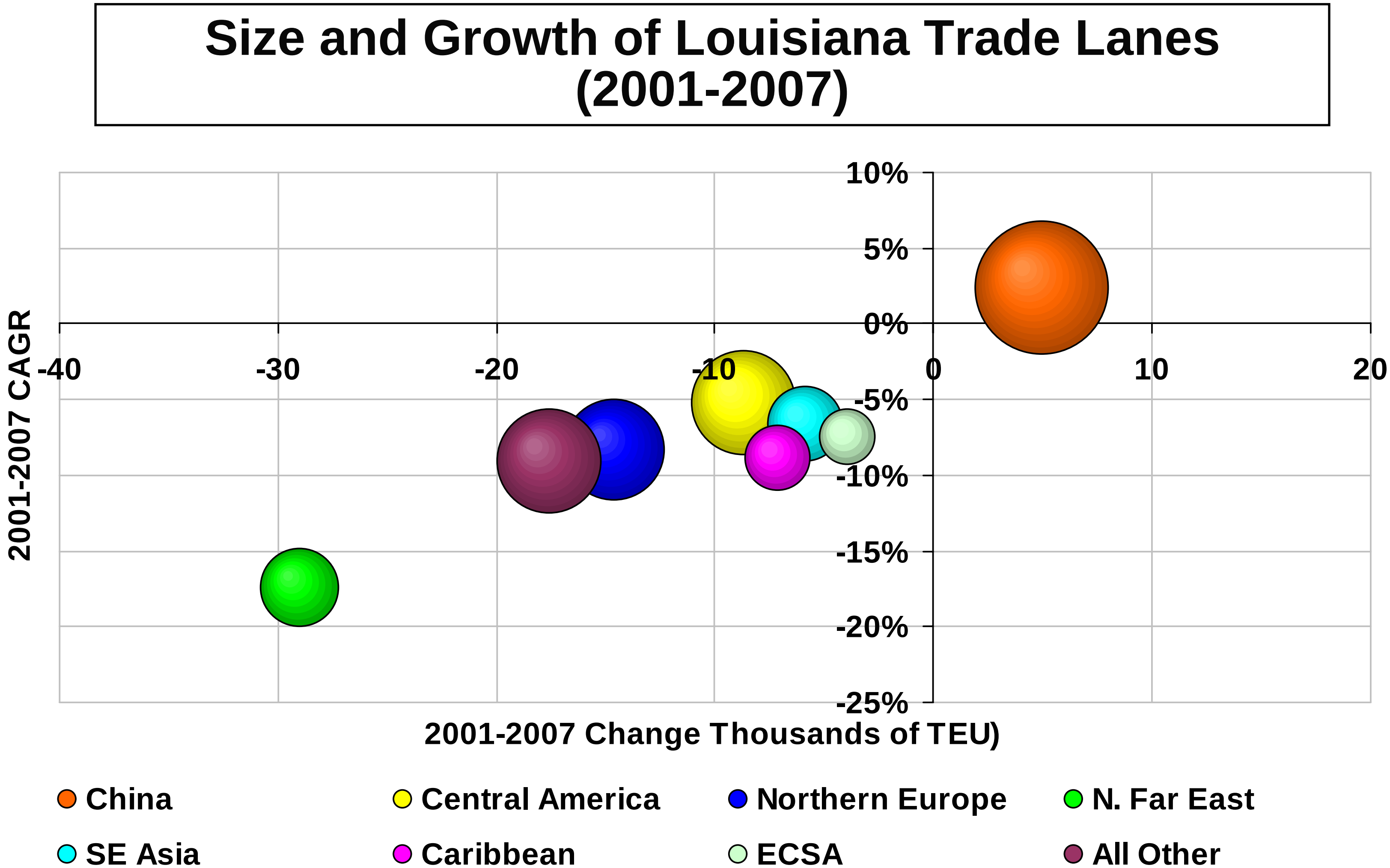
Source: Norbridge research and analysis

Container Industry Implications

- Container industry concentration is increasing; fewer more powerful customers is becoming the norm
- Proximity and or sustainable competitive access to large population centers drives container growth
- There are numerous, large container terminal expansion projects which have or will add significant North American capacity
- In addition, there is significant latent capacity in existing container terminals for established players to expand
- Future growth may not support the added capacity
- Louisiana faces multiple, major challenges:
  - Market fundamentals: population, competitive positioning
  - Economics: transport, supply chain
  - Transit times

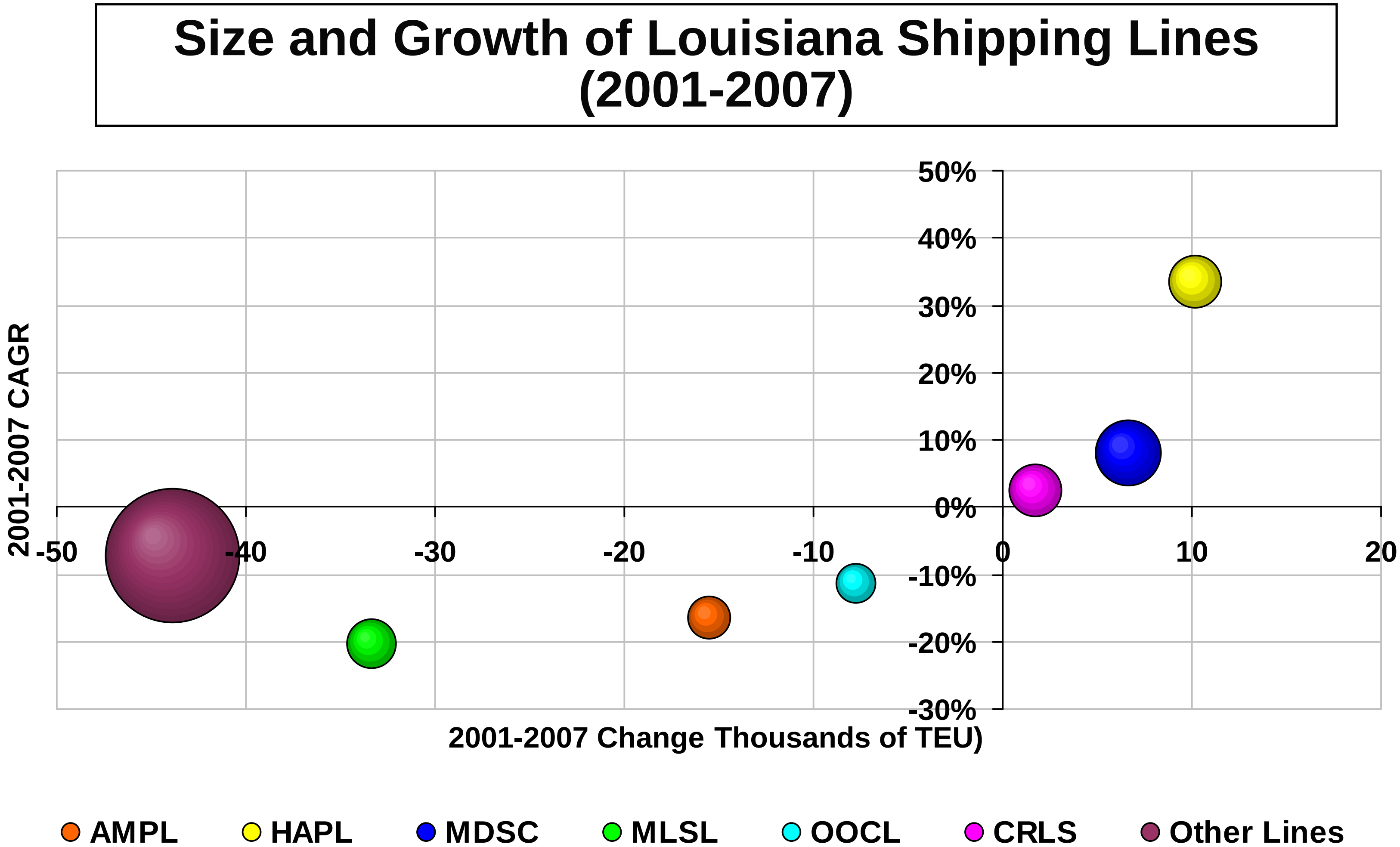
Louisiana Container Market

With the exception of China, all major trade lanes declined in terms of container trade with Louisiana between 2001 and 2007.



Source: PIERS; Norbridge Analysis

Three of the top six carriers experienced declines in their Louisiana traffic between 2001 and 2007.

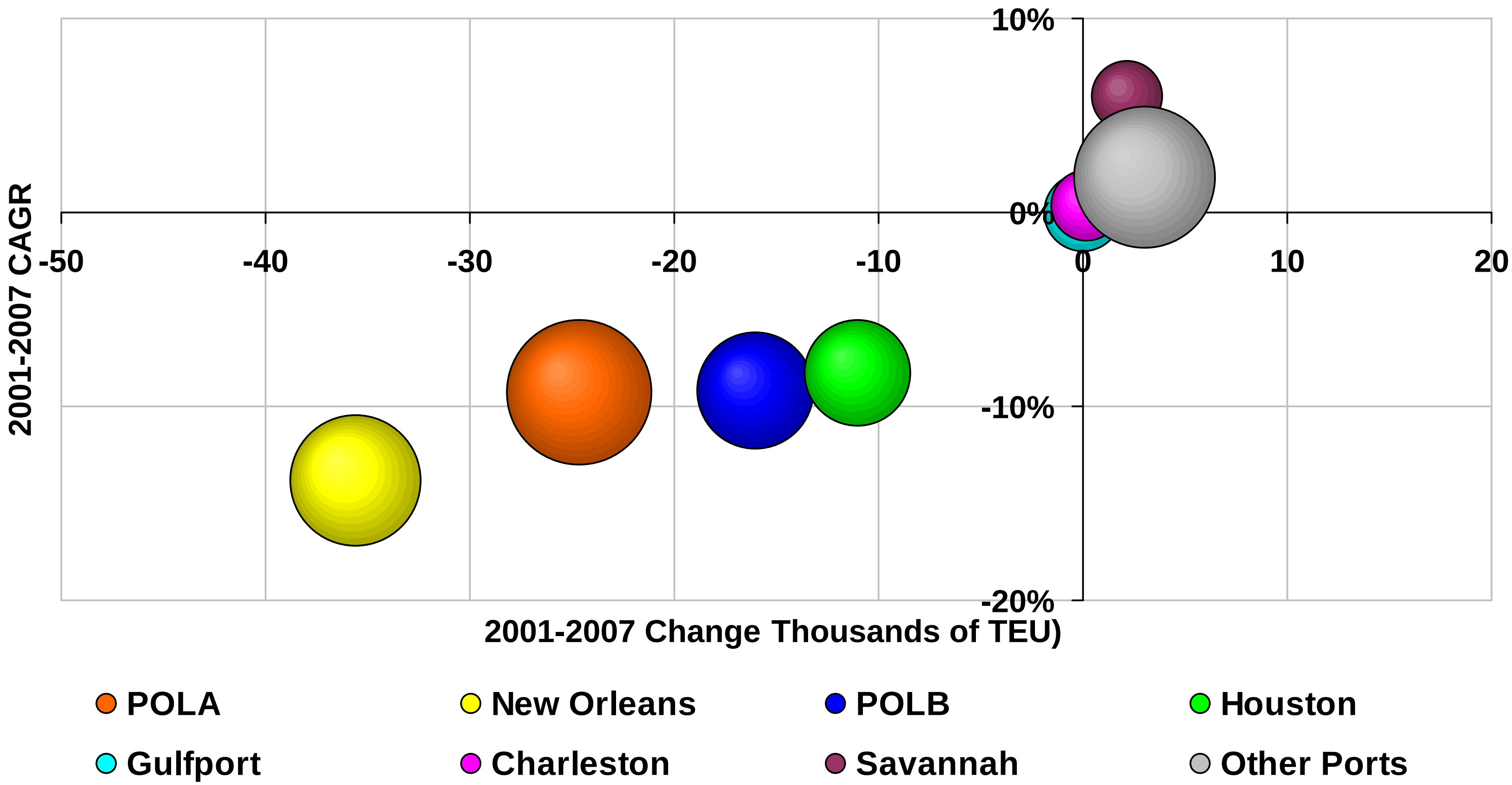


Source: PIERS; Norbridge Analysis

Norbridge

The Port of New Orleans saw the largest decrease in terms of Louisiana container traffic between 2001 and 2007

Size and Growth of Ports Serving Louisiana (2001-2007)

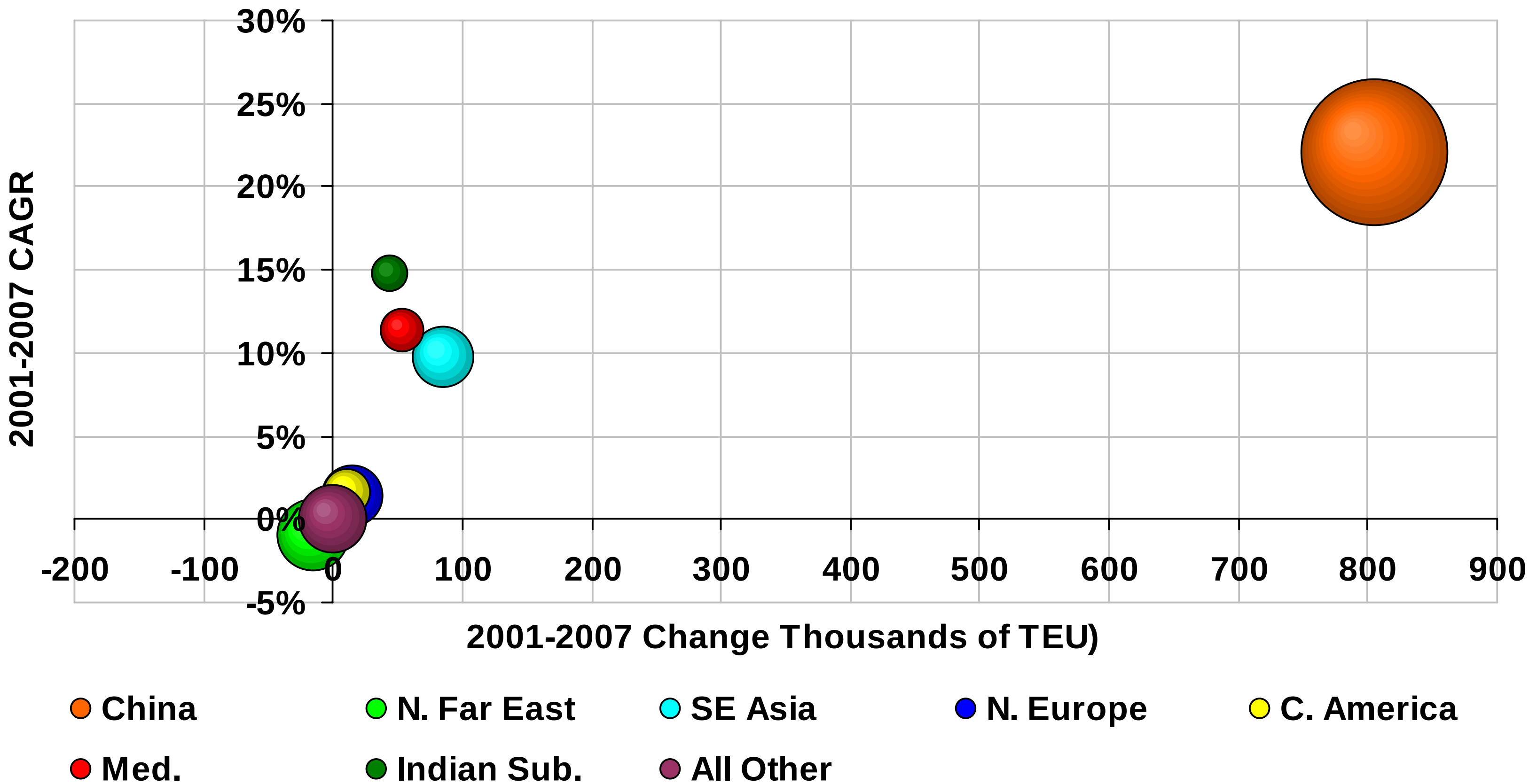


Source: PIERS; Norbridge Analysis

Regional Container Market

Regional market growth has been driven by China, which is the largest and fastest growing trade lane.

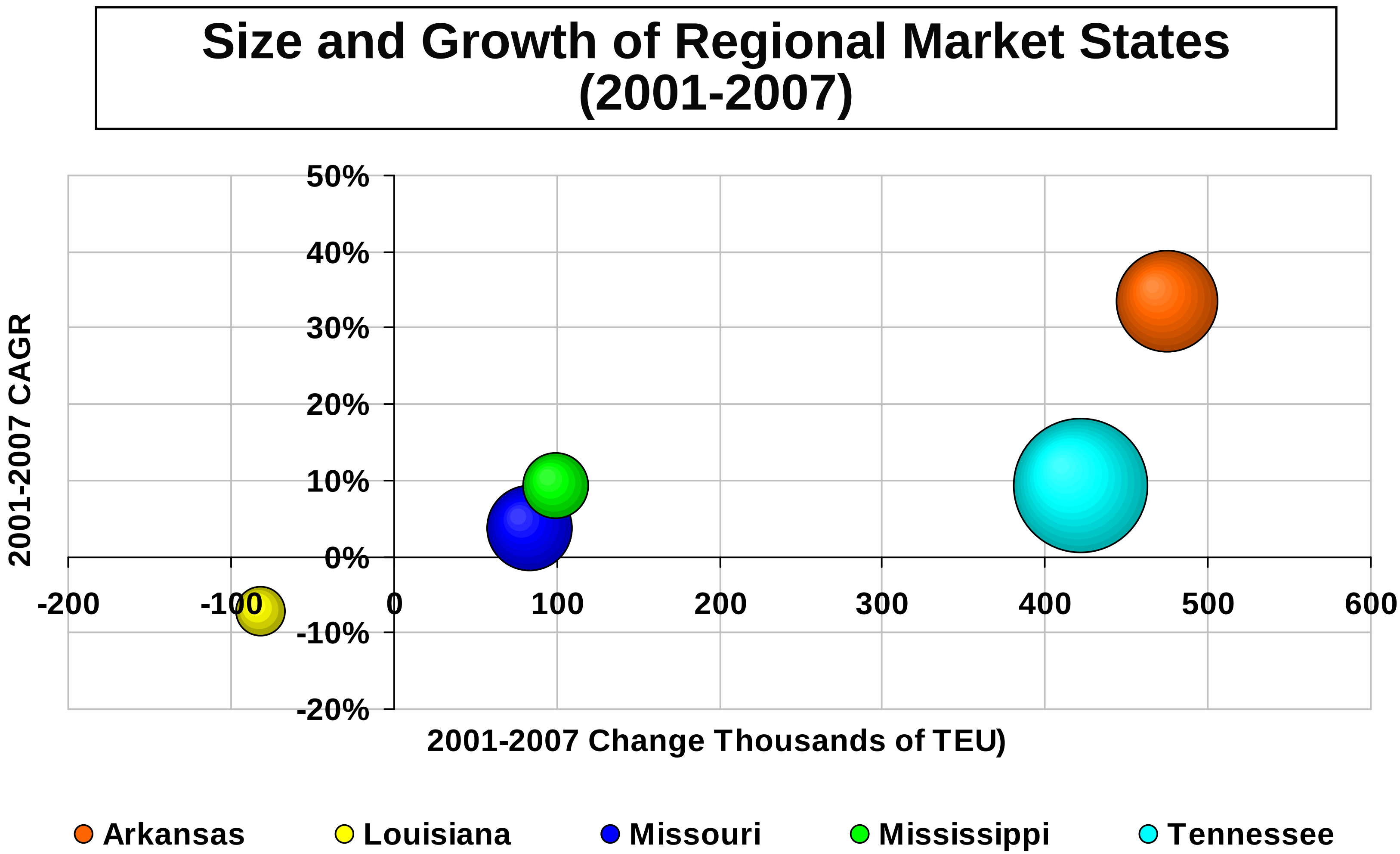
Size and Growth of Regional Market Trade Lanes (2001-2007)



*Note: Regional market includes LA, AR, MS, MO, and TN

Source: PIERS; Norbridge Analysis

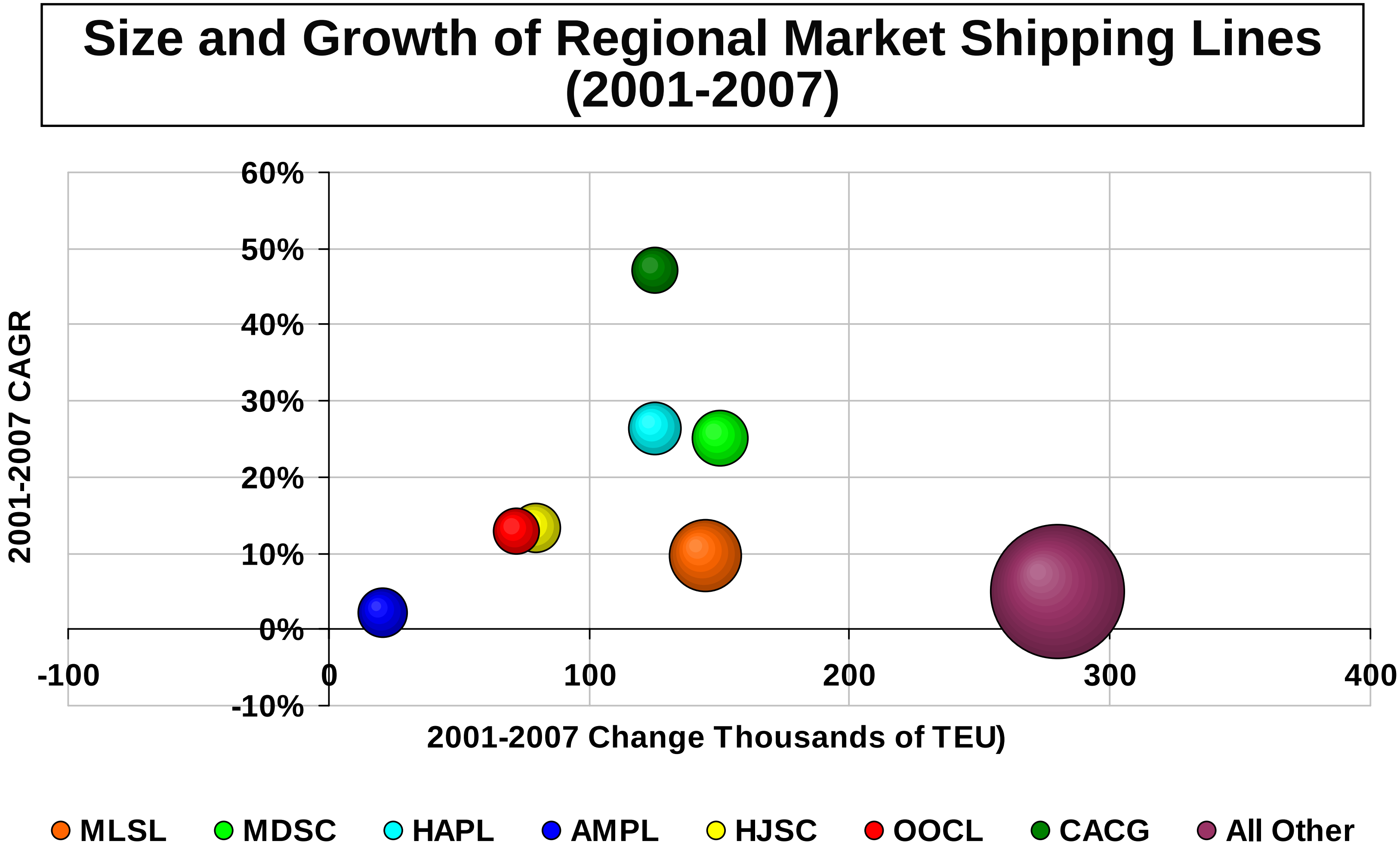
Louisiana is the only state in the regional market to have experienced a in TEUs between 2001 and 2007.



*Note: Regional market includes LA, AR, MS, MO, and TN

Source: PIERS; Norbridge Analysis

The 7 leading carriers experienced increases in their regional market container volumes between 2001 and 2007.

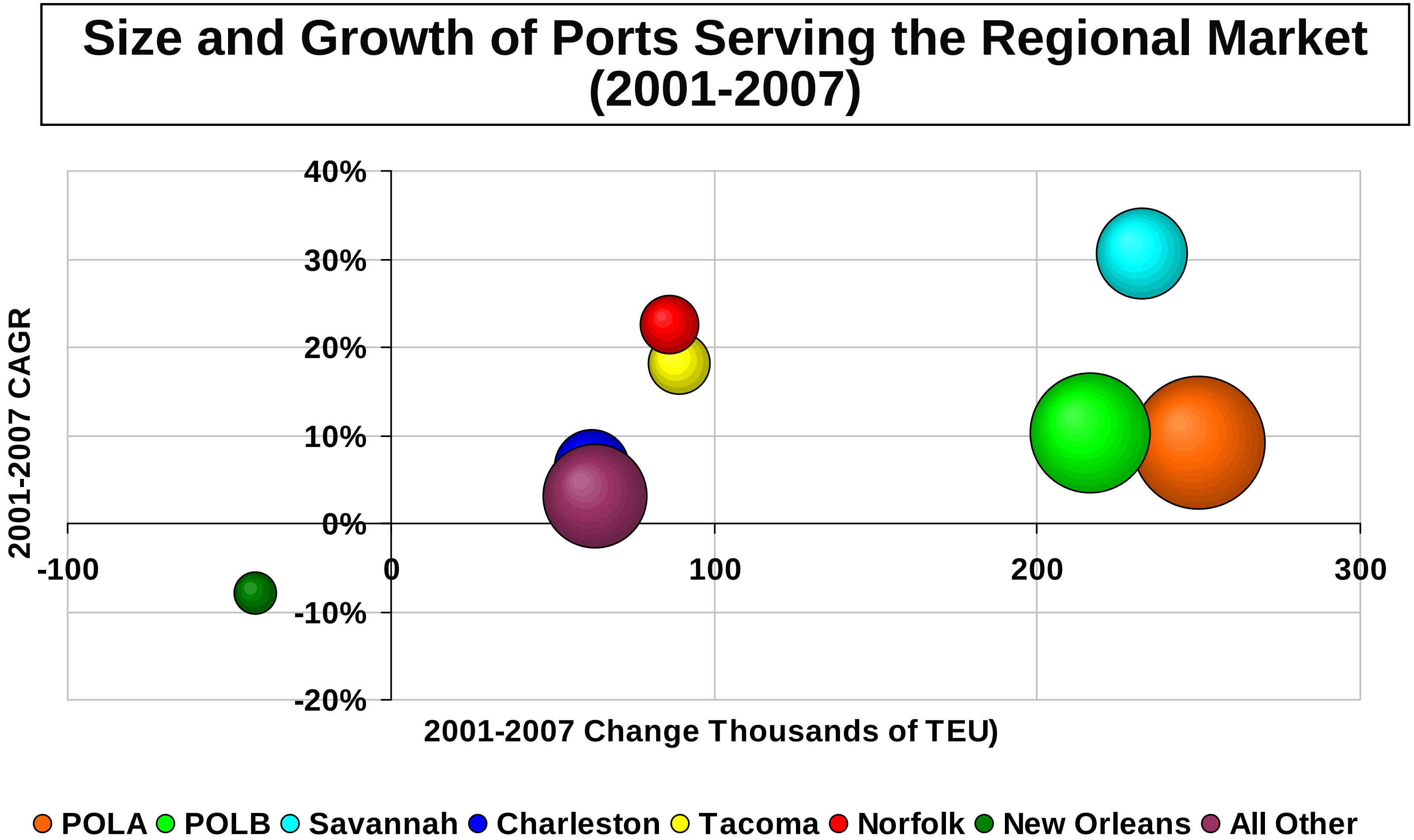


*Note: Regional market includes LA, AR, MS, MO, and TN

Source: PIERS; Norbridge Analysis

Norbridge

New Orleans is the only major port to realize a decline in regional market traffic volumes between 2001 and 2007.



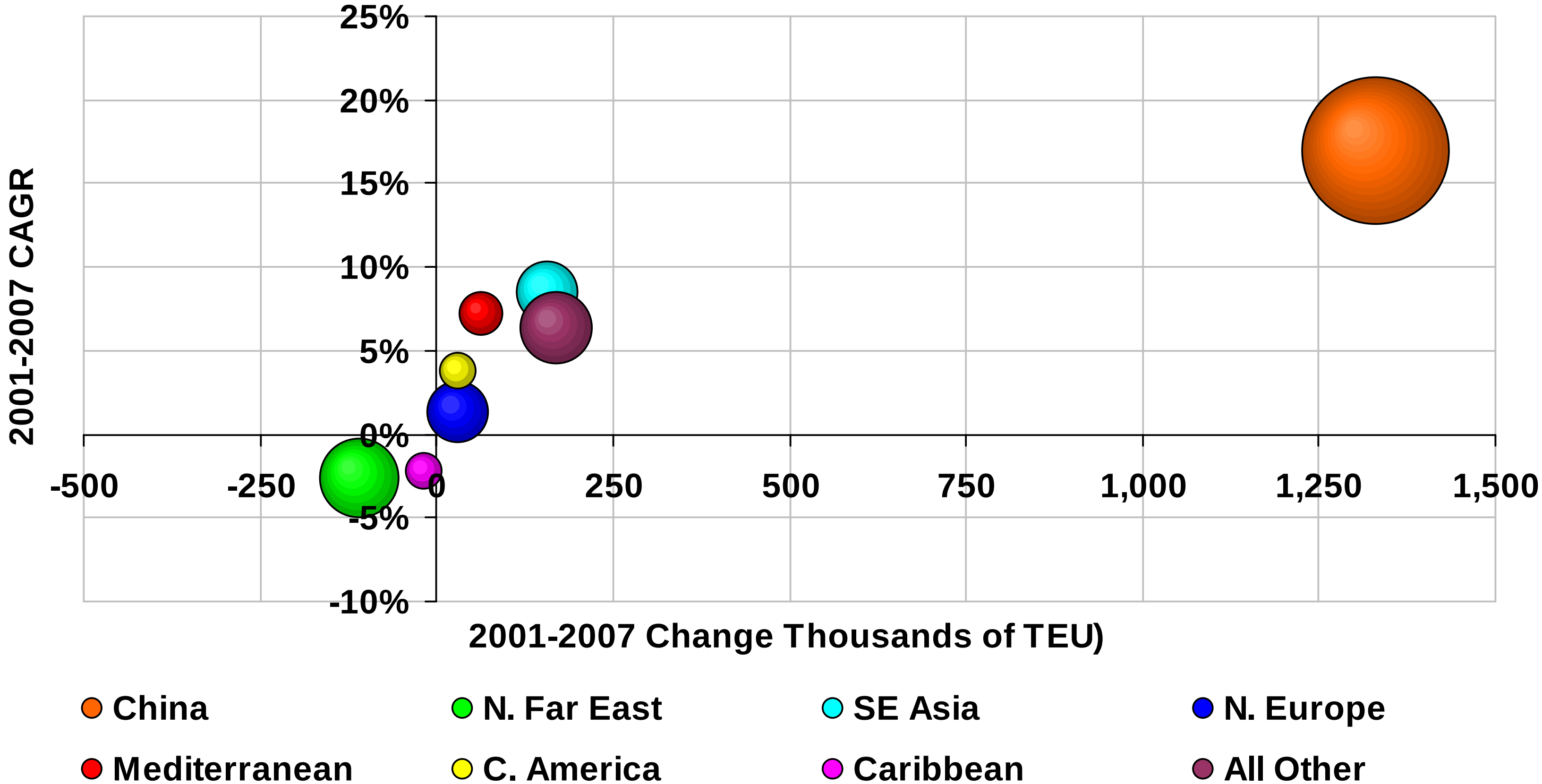
*Note: Regional market includes LA, AR, MS, MO, and TN

Source: PIERS; Norbridge Analysis

Midwest Container Market

Midwest market growth has been driven by China, which is the largest and fastest growing trade lane.

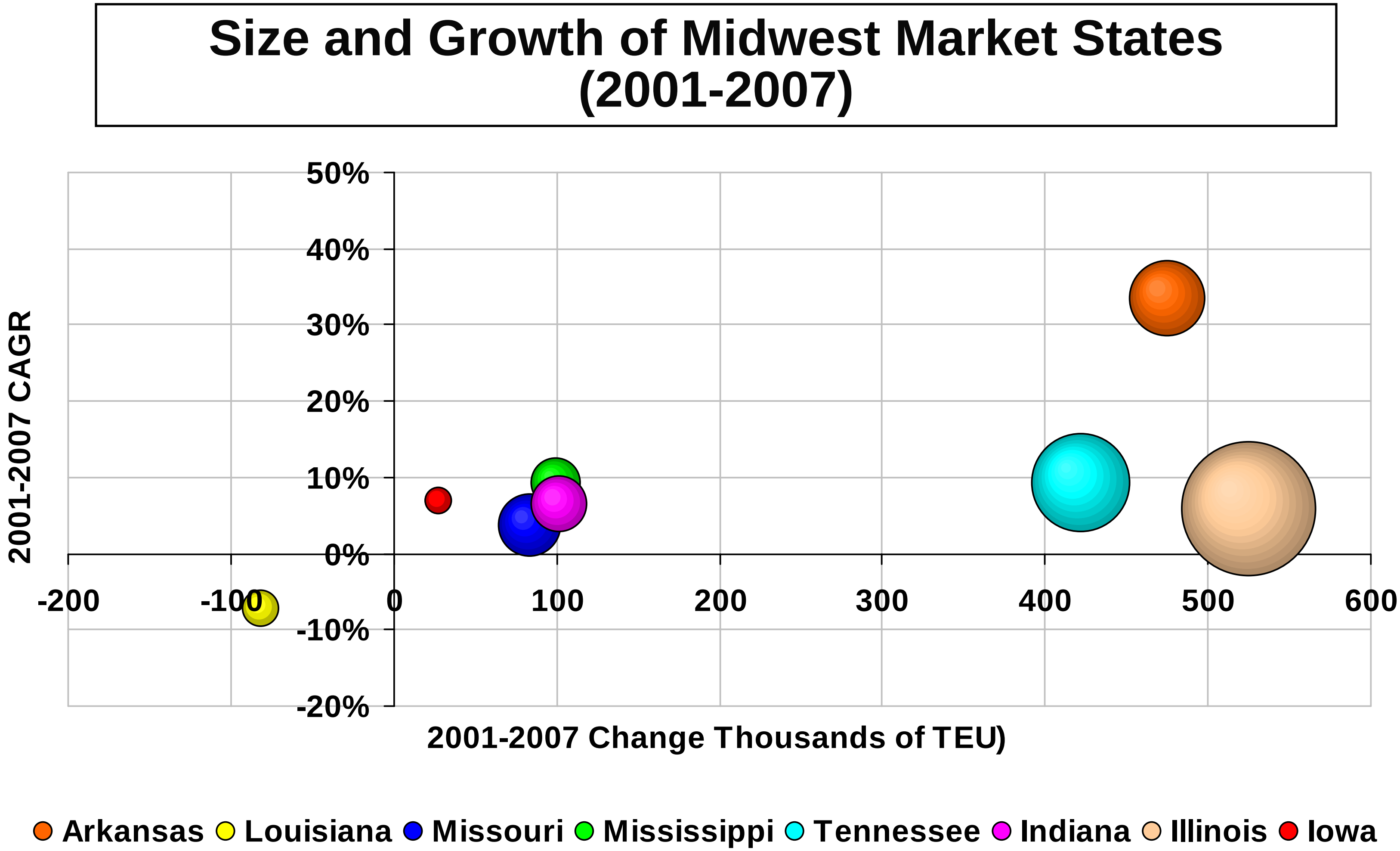
Size and Growth of Midwest Market Trade Lanes (2001-2007)



*Note: Midwest market includes LA, AR, MS, MO, TN, IA, IN, and IL

Source: PIERS; Norbridge Analysis

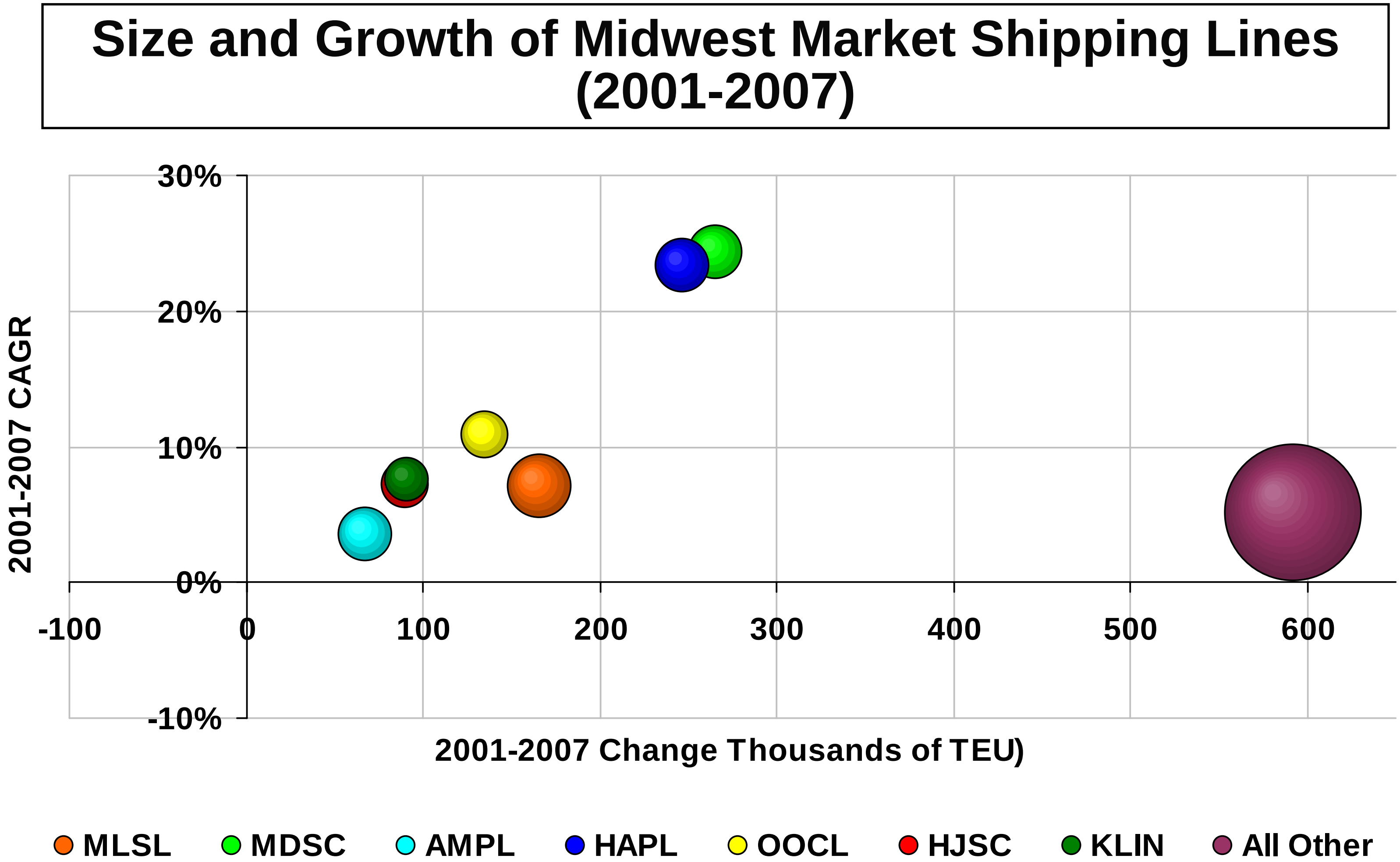
Louisiana is the only state in the Midwest market to realize a decline in TEUs between 2001 and 2007.



*Note: Midwest market includes LA, AR, MS, MO, TN, IA, IN, and IL

Source: PIERS; Norbridge Analysis

The 7 leading carriers experienced increases in their Midwest container traffic between 2001 and 2007.



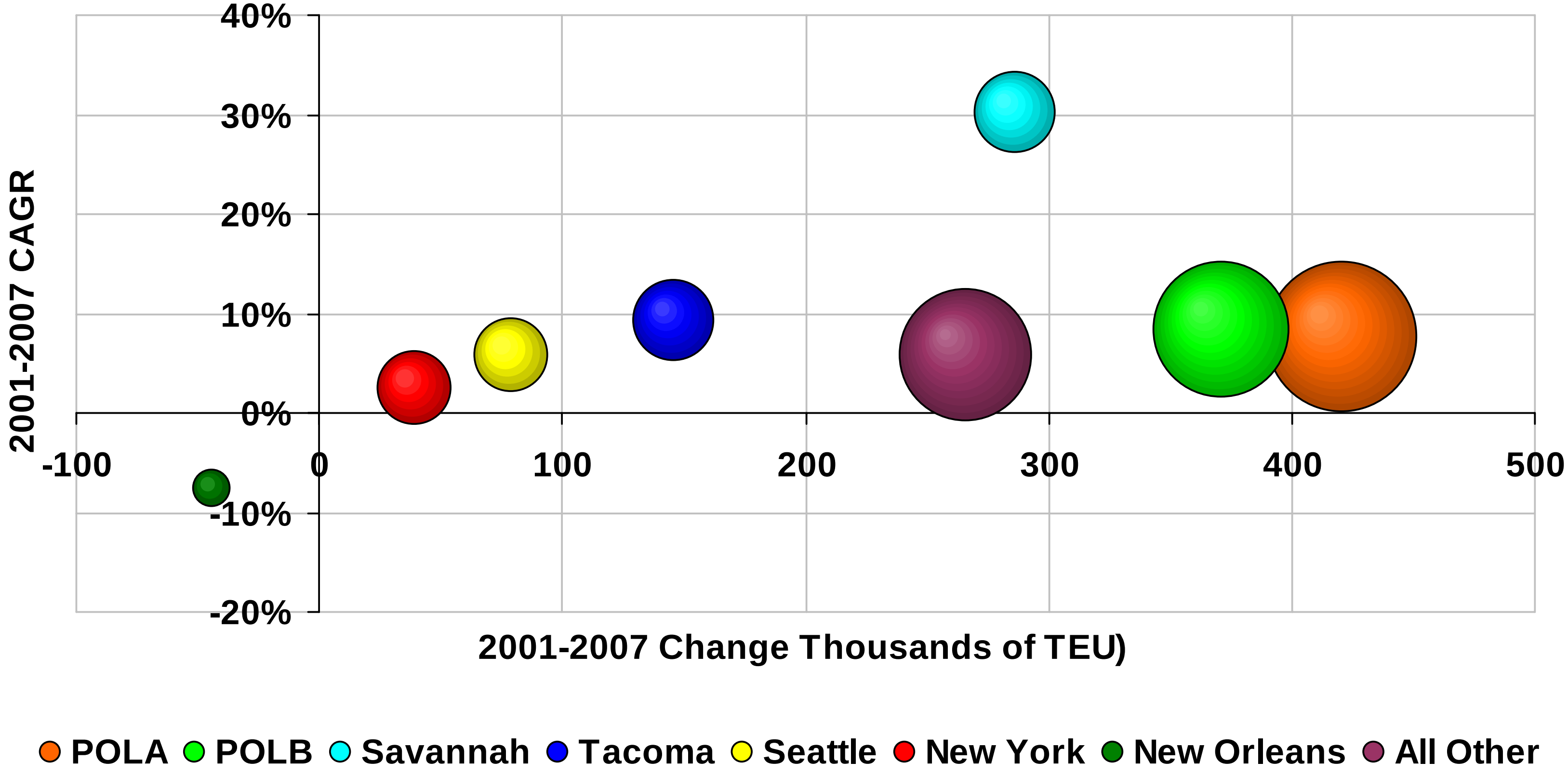
*Note: Midwest market includes LA, AR, MS, MO, TN, IA, IN, and IL

Source: PIERS; Norbridge Analysis

Norbridge

New Orleans is the only major port to realize a decline in Midwest container traffic between 2001 and 2007

Size and Growth of Ports Serving the Midwest Market (2001-2007)



*Note: Midwest market includes LA, AR, MS, MO, TN, IA, IN, and IL

Source: PIERS; Norbridge Analysis