



Panama Canal Expansion: Increase in Route Value and Service to World Maritime Industry

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An aerial photograph of a large red cargo ship navigating through the Panama Canal locks. The ship is positioned in the lower-left quadrant of the frame, moving towards the upper-right. The water is a deep blue, and the concrete structures of the locks are visible on the left side. The background of the slide is a textured blue pattern.

1999 – World expectation on Panama's capacity to manage and operate the Panama Canal.

Main Differences in Business Models


USA PCC

- ✦ Foreign enclave
- ✦ Managed by its principal user
- ✦ Responded to US interests
- ✦ Non-profitable agency
- ✦ Budget administration
- ✦ Ample capacity
- ✦ Near monopoly

PANAMA ACP

- ✦ Inalienable patrimony of the Republic of Panama
- ✦ Administered by its owners
- ✦ Profitable and competitive enterprise
- ✦ Resource Management
- ✦ Operates near capacity
- ✦ Faces increase competition

USA PCC MISSION

- 
- Ensure the safe and efficient operation of the Canal;
 - Take all appropriate steps to achieve a seamless transition to Panamanian control of the Canal on December 31, 1999.

September 7, 1977 - December 31, 1999

An aerial photograph of a large red and white cargo ship navigating through a canal lock system. The ship is positioned in the lower left quadrant of the frame, moving towards the upper right. The water is a deep blue, and the concrete walls of the lock are visible on either side. The ship's deck is filled with various cargo containers and equipment.

PANAMA ACP MISSION

- To produce maximum sustained benefit from our geographic position.

Transition in Business Model

**USA PCC
Model**

**Panama
ACP
Business
Model**

**Break-Even Operation
Managed by its
principal user**

**For Profit, and
Efficient Operation
Managed by its Owner**

ACP Panama Canal Business Model

The Legal structure is based on:

- The Constitution of the Republic of Panama
- The Organic Law of the Panama Canal Authority
- ACP regulations.

Some of the key elements of the Canal Business Model are:

- The Canal constitutes an inalienable patrimony of the Panamanian Nation.
- The Canal has to be efficient and profitable
- The Canal has its own patrimony and the right to manage it.
- Special employment regime based on the principles of merit and equal opportunity.
- Special procurement and contracting regime.
- Code of Ethics and Conduct.
- Special procedure for dispute resolution.
- Strikes are prohibited.

Panama Canal ACP Business Model

- **The Canal's current legal framework changes the business philosophy to one oriented to enhance the value of the route by providing a safe, reliable and efficient service to its customers while generating a return to its owner, The Republic of Panama.**



Panama Canal Change in Business Model

Historical Background

- 2000 – Change in the reservation system rules
- 2002 – Tolls are modified for the first time under Panamanian administration.

Differentiated market segment by type of vessel is established.

- Dry bulk carriers
- Container ships
- Liquid bulk
- Refrigerated cargo
- Vehicle carriers
- Passenger ships
- General cargo
- Others



Panama Canal Change in Business Model Historical Background

- 2005 – Change in the admeasurement system of container vessels. The phased-in implementation over three years, is as follows:
 - May 2005 \$42 per TEU.
 - May 2006 \$49 per TEU.
 - May 2007 \$54 per TEU.
- April 2006 – Implementation of a daily reservation slot made available through an auction process to the best bidder.



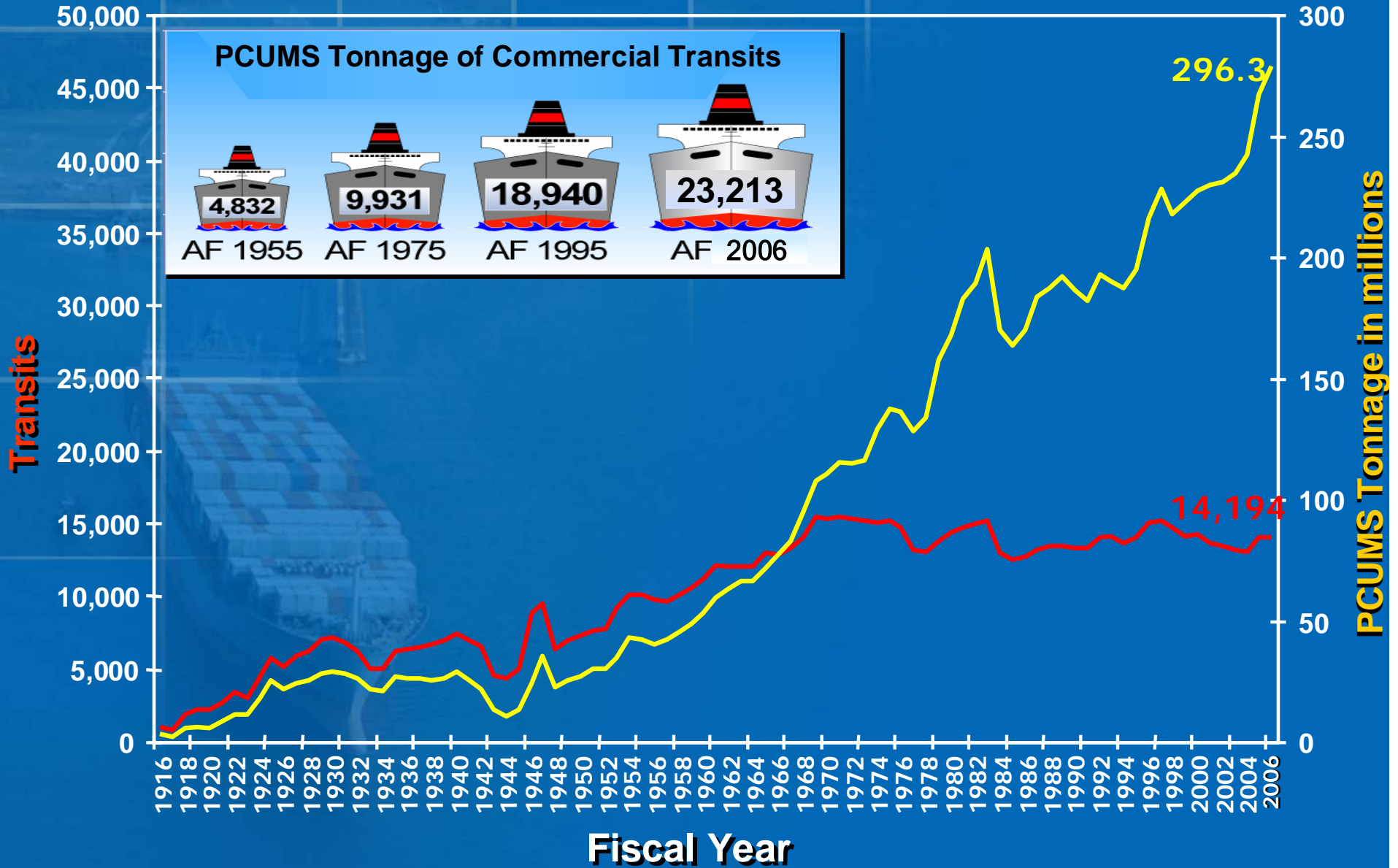
An aerial photograph of a large red cargo ship, likely a container ship, navigating through a narrow canal lock. The ship is positioned in the lower-left quadrant of the frame, moving towards the upper-right. The water is a deep blue, and the concrete walls of the lock are visible on either side. The background is a dark blue gradient with a subtle, wavy pattern.

2007 - Proposal to Modify the Regulations for the Admeasurement of Vessels for the Panama Canal and the Panama Canal Tolls

The proposal announced on February 2 includes:

- **Administrative changes in the admeasurement Rules**
- **New admeasurement method for passenger ships**
- **Toll adjustment by segment**

Transits vs. PCUMS Tonnage FY1916 - FY2006



CAPITAL INVESTMENT



Dredging



Locomotives



Hydraulic Conversion



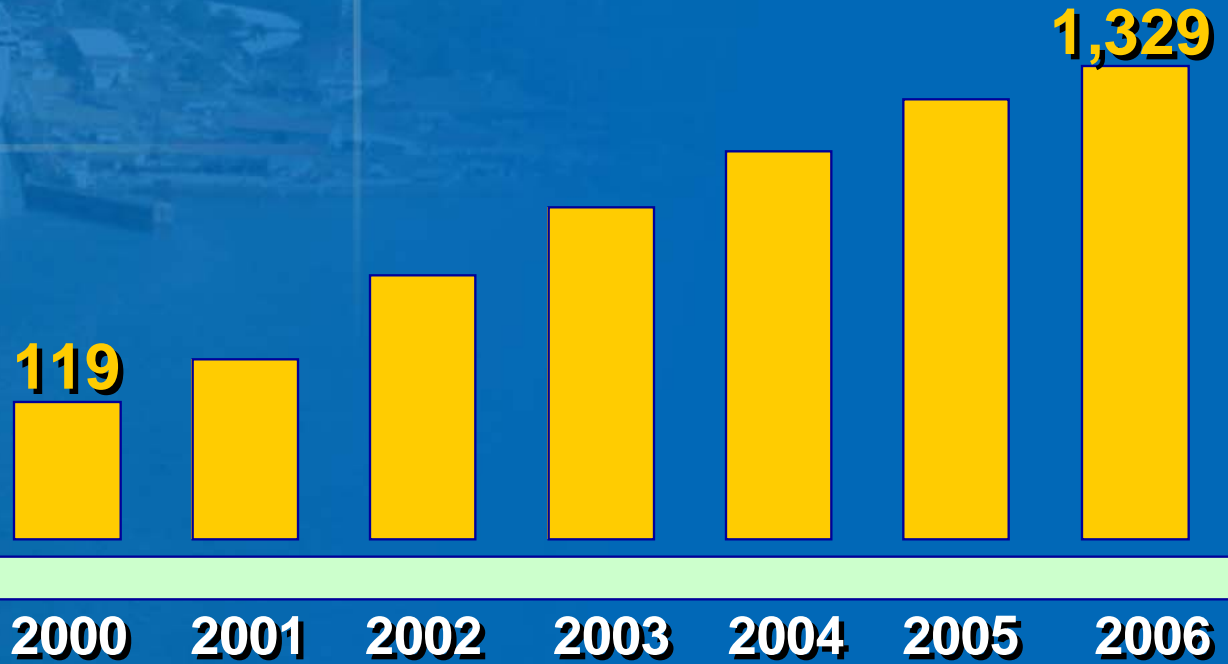
Technology



Track system

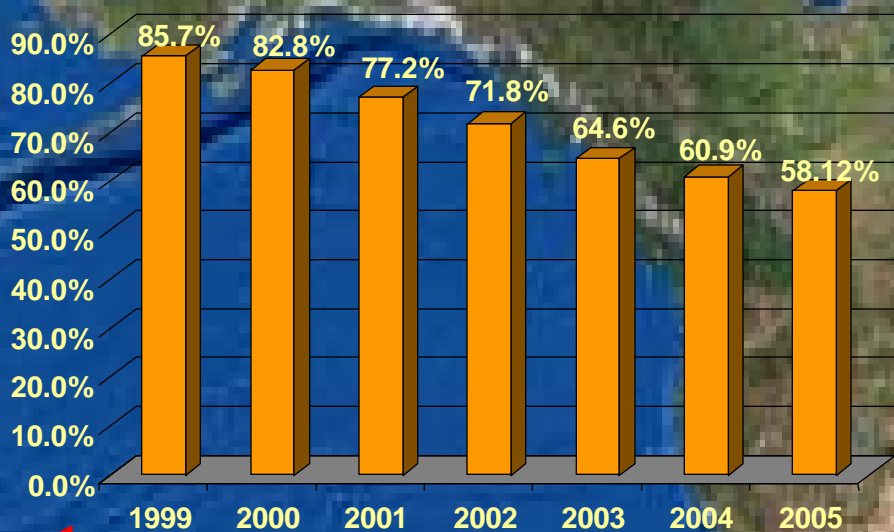


Tug Boats

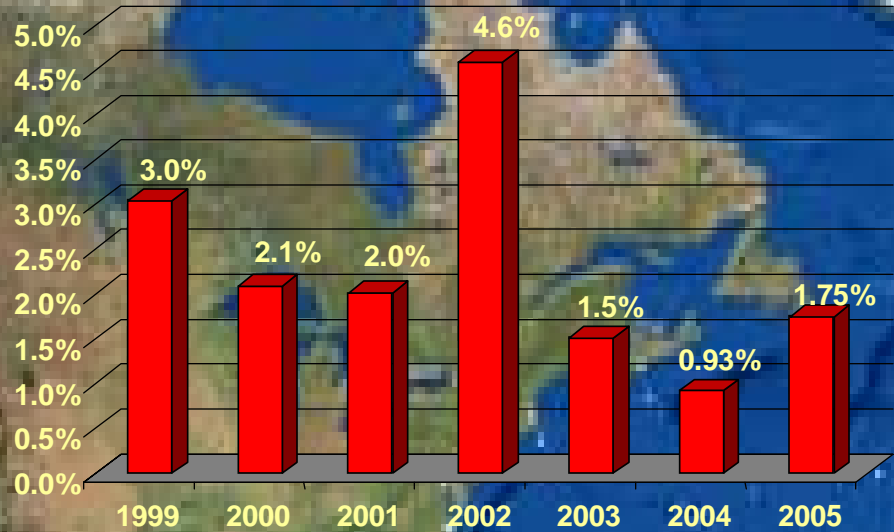


Panama Canal Market Share in N.E. Asia – U.S. East Coast Route

US Intermodal System

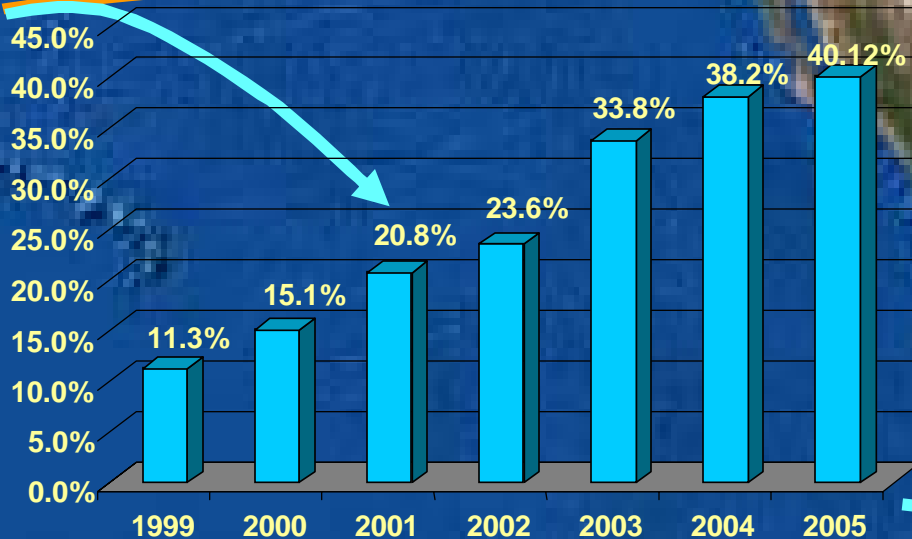


Suez Canal



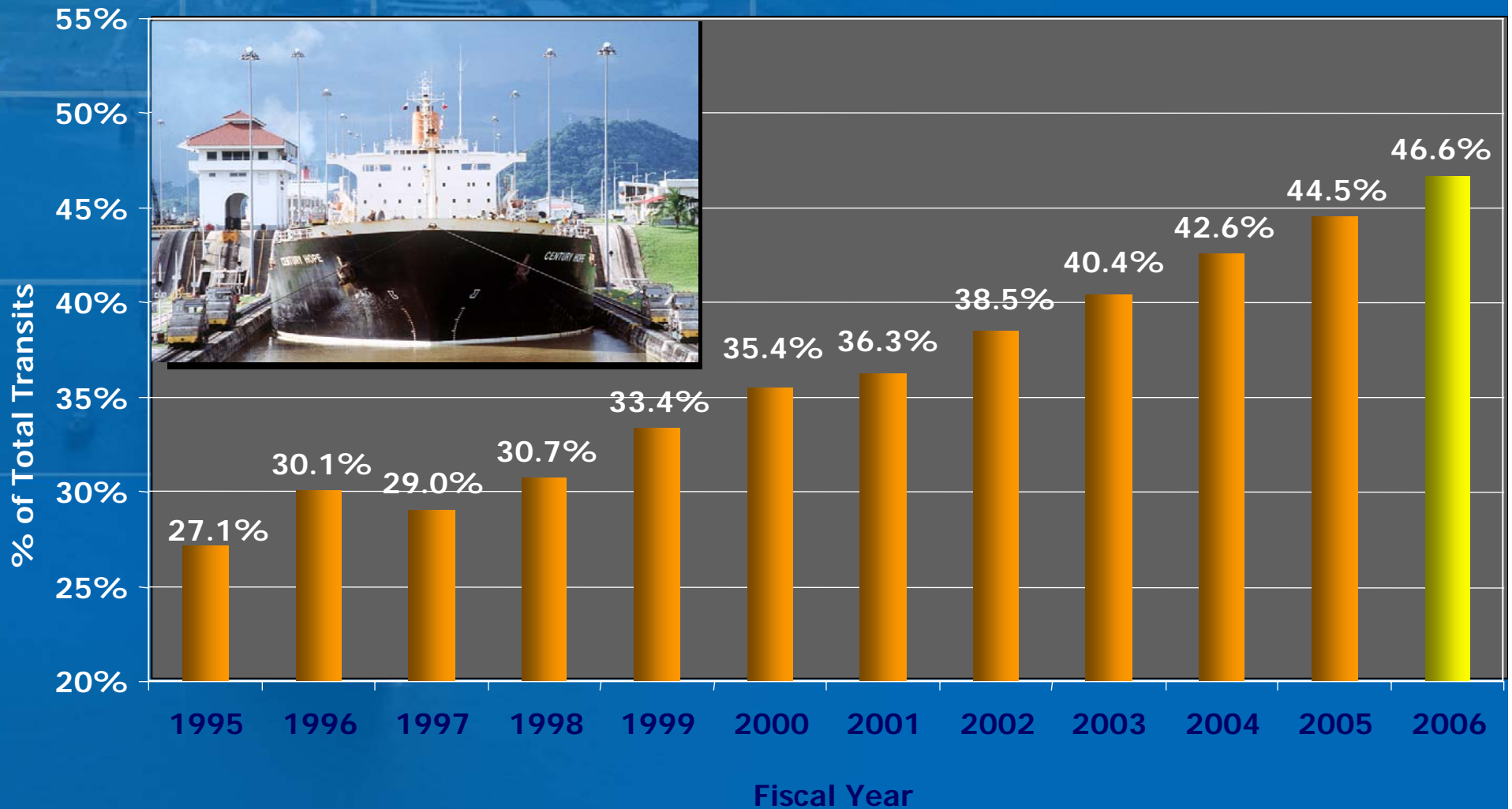
100%

Panama Canal

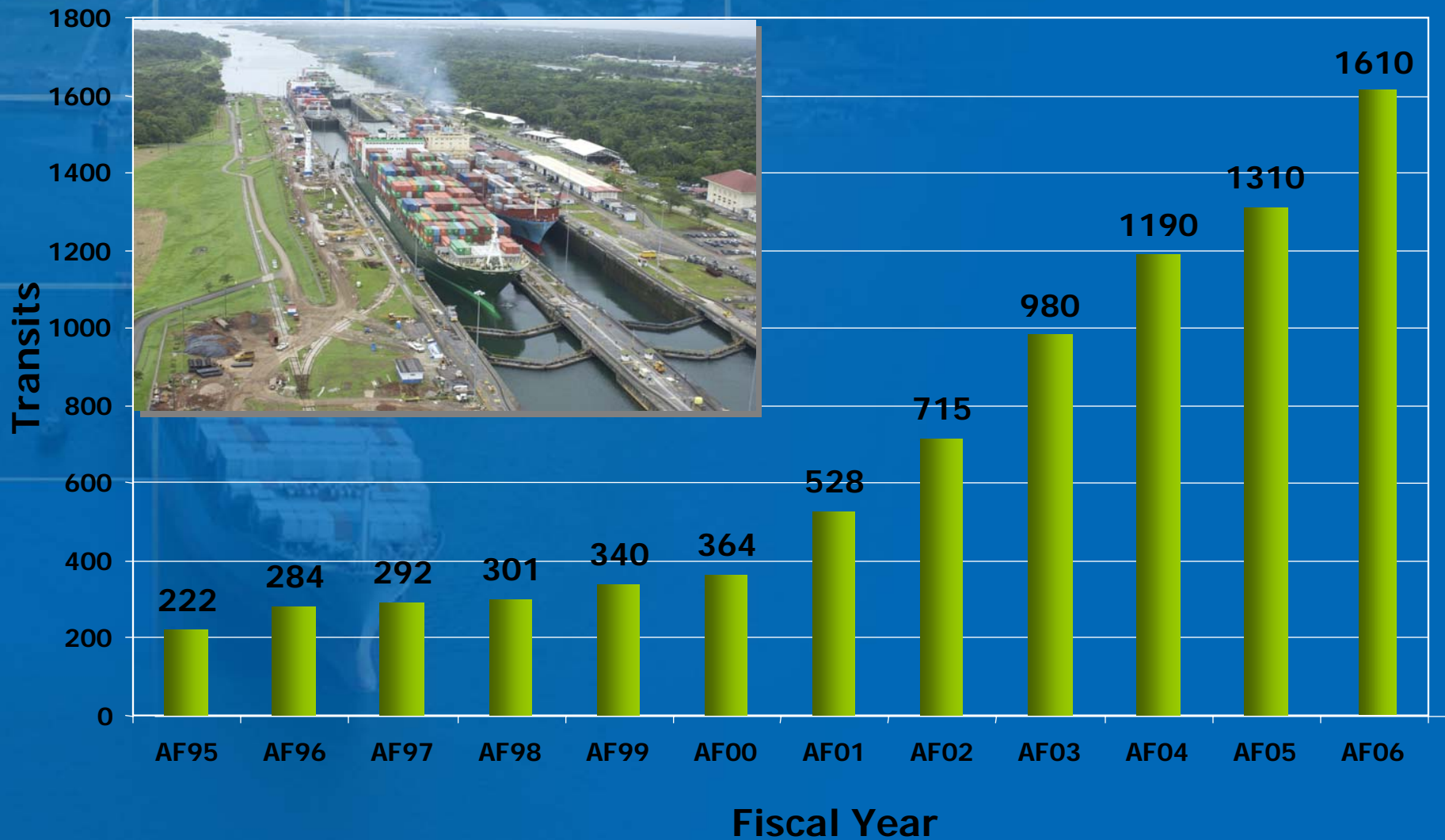


Source: Estimate based on different industry sources (PIERS, AAR, ACP Ship Data Banks)

Growth of Panamax Vessel Transits 100' (30.5m) + Beam FY1995 – FY2006



Growth in Transits of Vessels >900' (274.3m) Overall Length FY1995 - FY2006

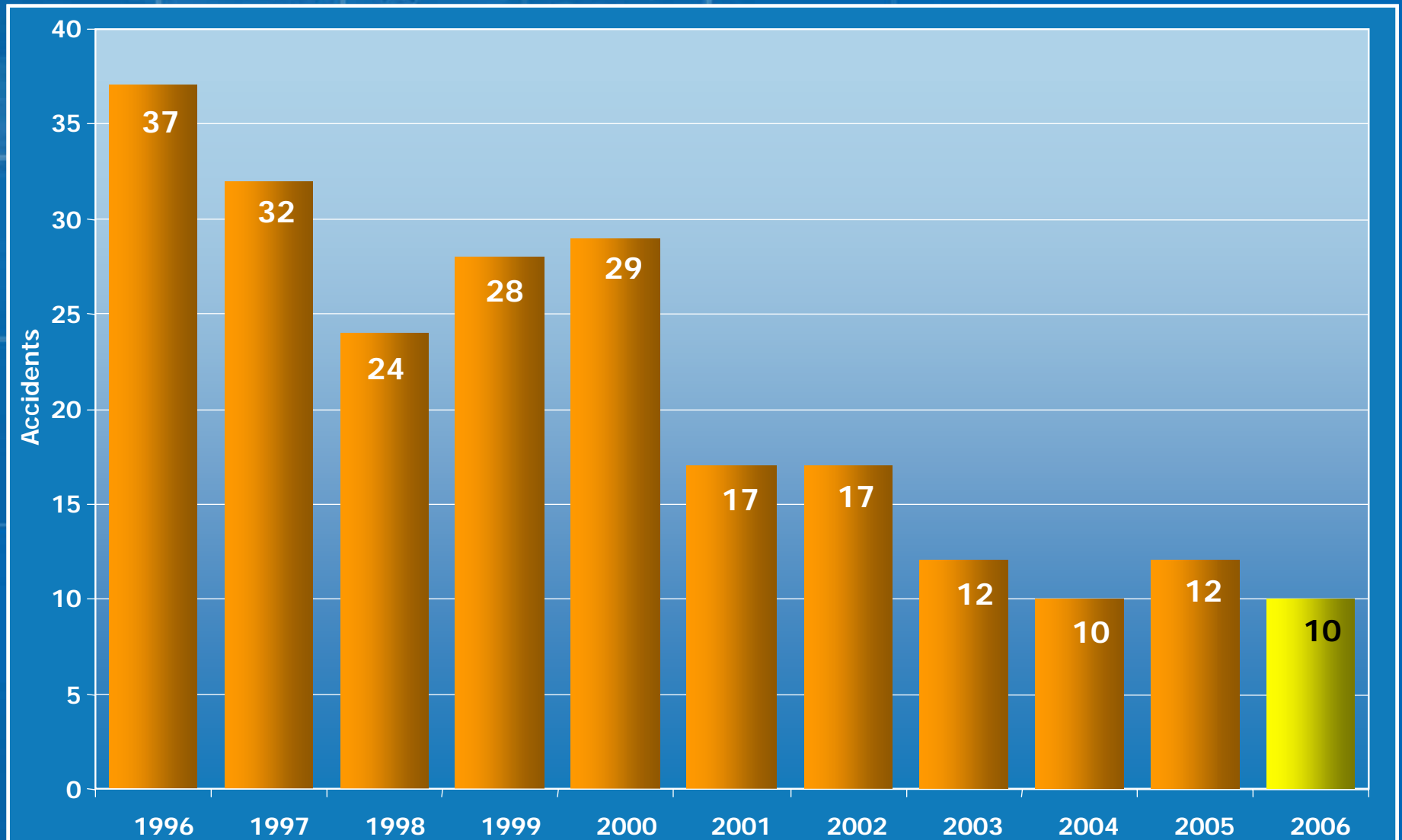


Average Canal Waters Time



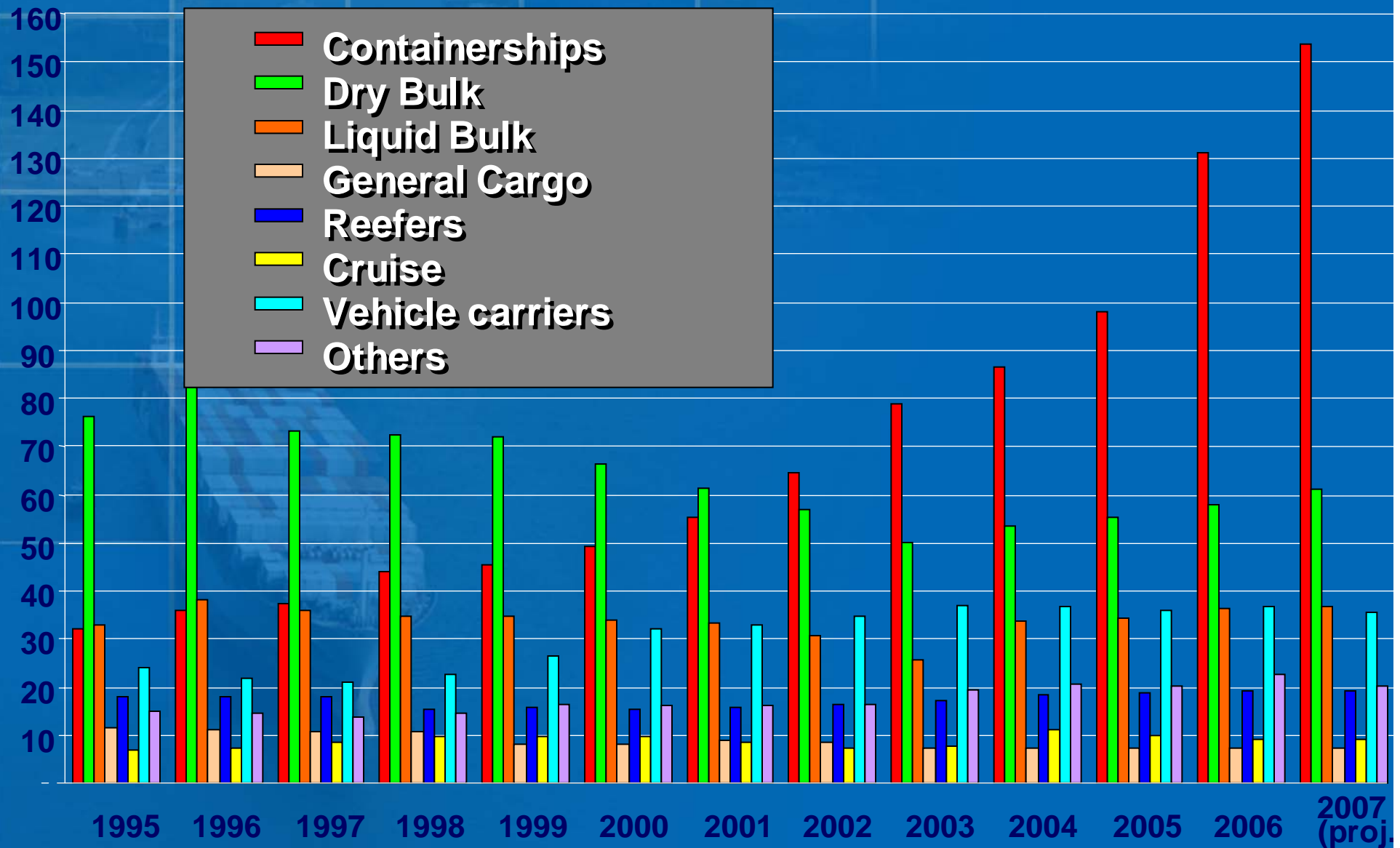
Accidents

FY1996 – FY2006



PCUMS Net Tons per Market Segment

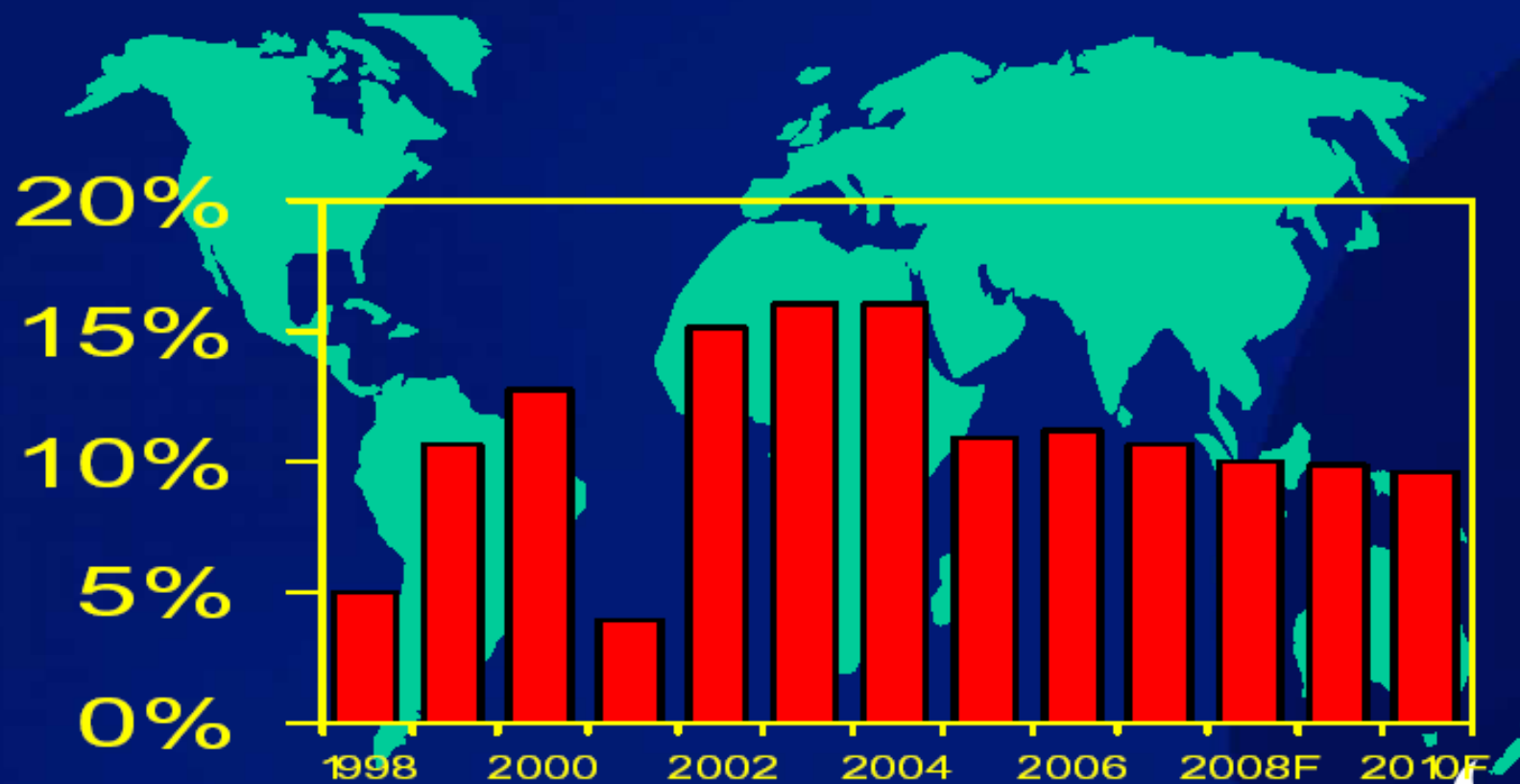
(in millions - FY 2000-2006 / 2007 proj)



Interoceanic Route and the Canal's Value for Panama and the World





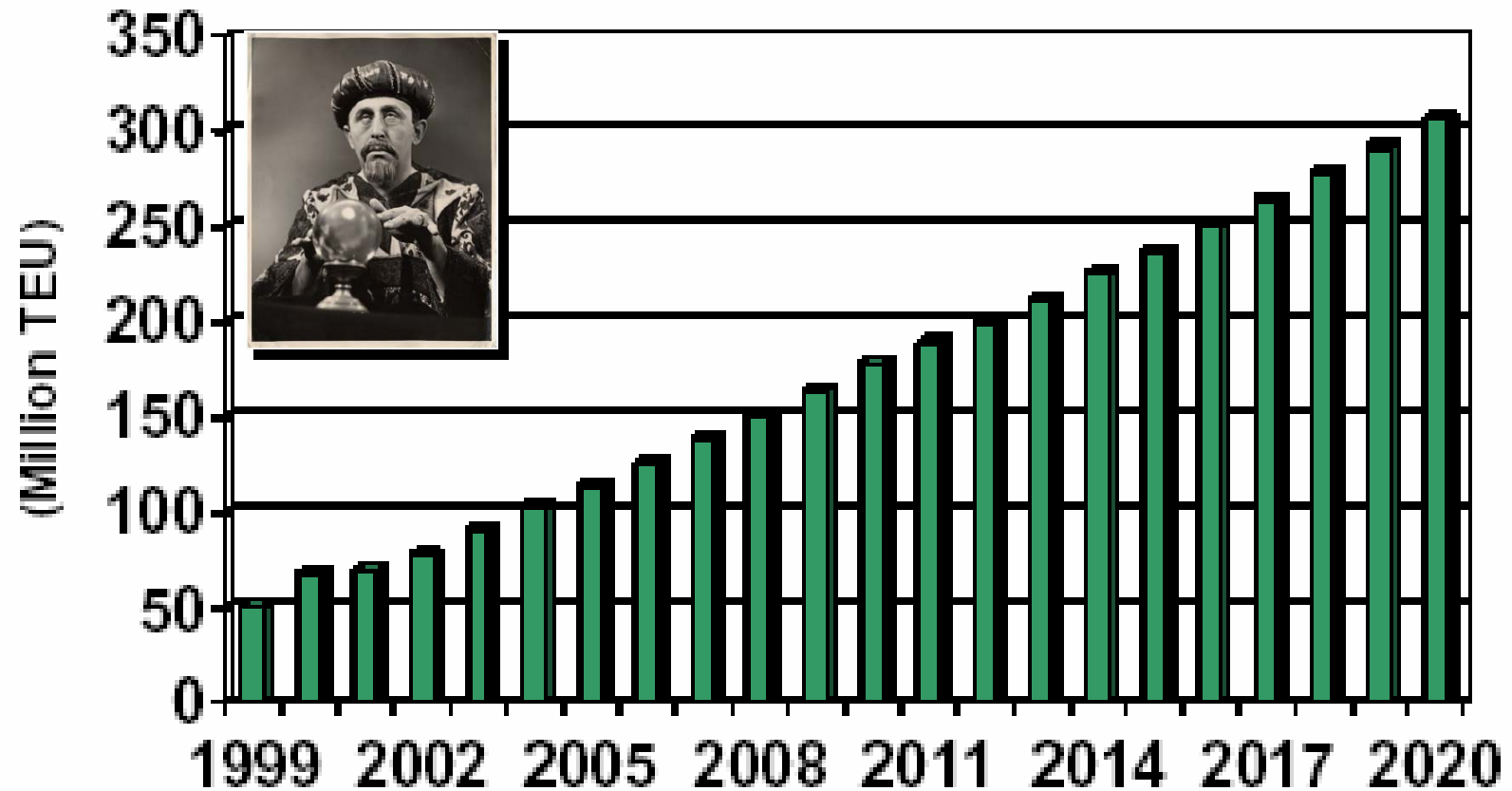


Source: Drewry Container Market Quarterly Sept06

Trans-Pacific Eastbound Demand Growth

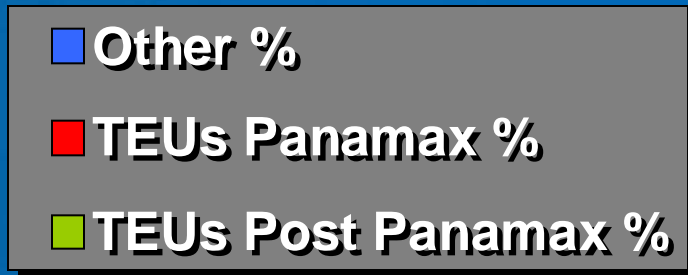
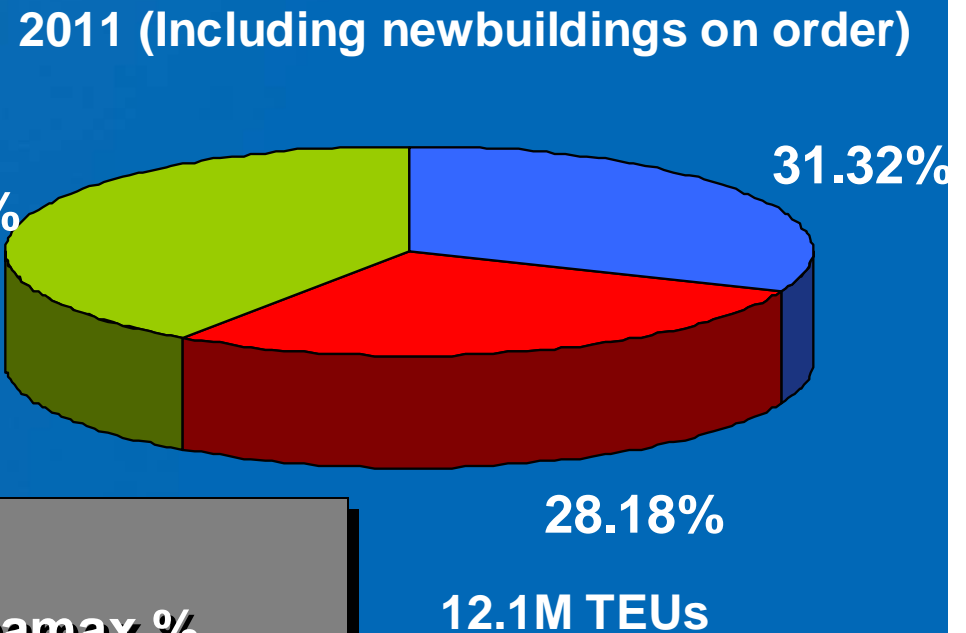
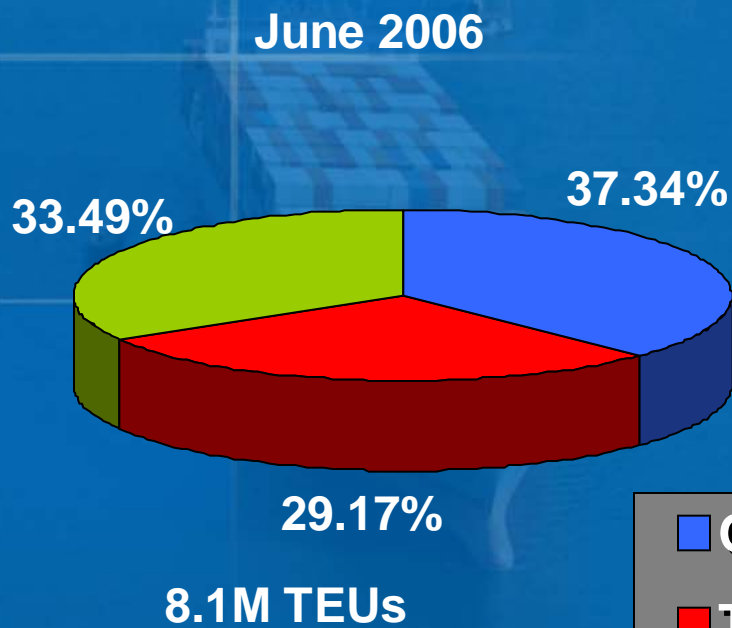
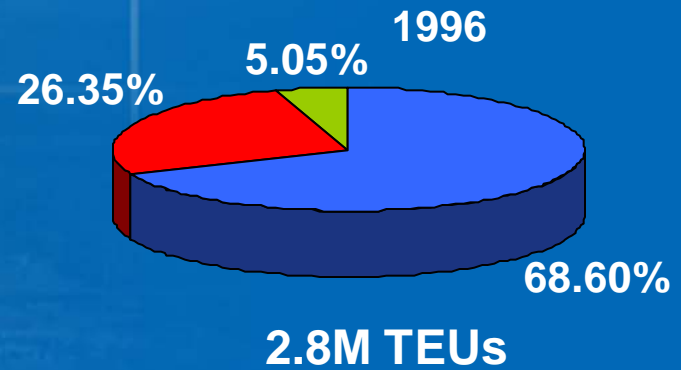
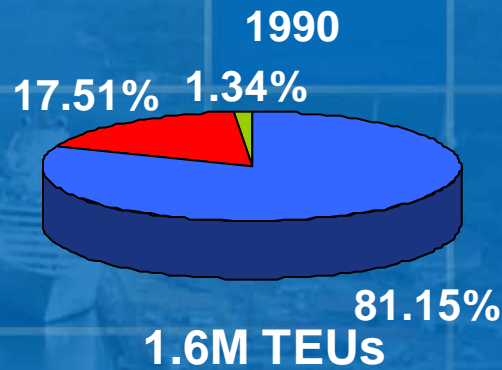
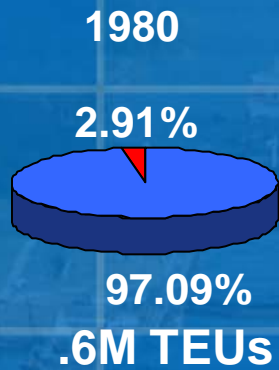
Source	Asia-U.S.		
	2007e	2008e	2009e
PIERS	9.5%	10.3%	n/a
Global Insight	8.8%	10.6%	n/a
Drewry	9.9%	10.2%	n/a
Morgan Stanley	10-11%	10-11%	10-11%
Goldman Sachs	11%	11%	10.3%
Clarkson	12%	n/a	n/a
UBS	8%	10%	10%

World Container Traffic



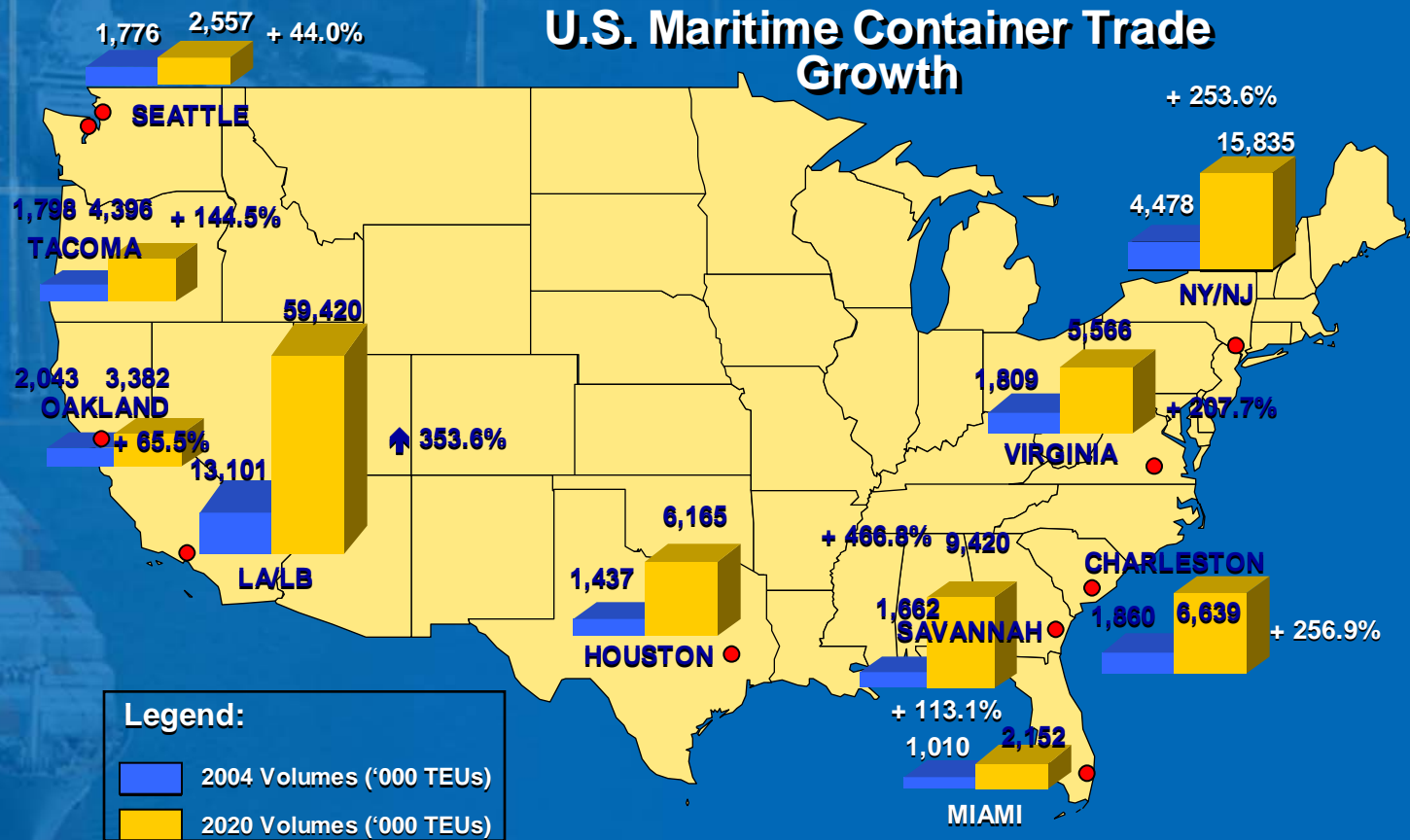
Sources: Drewry Shipping Consultant Ltd./Global Insight

Evolution of the world TEU carrying capacity



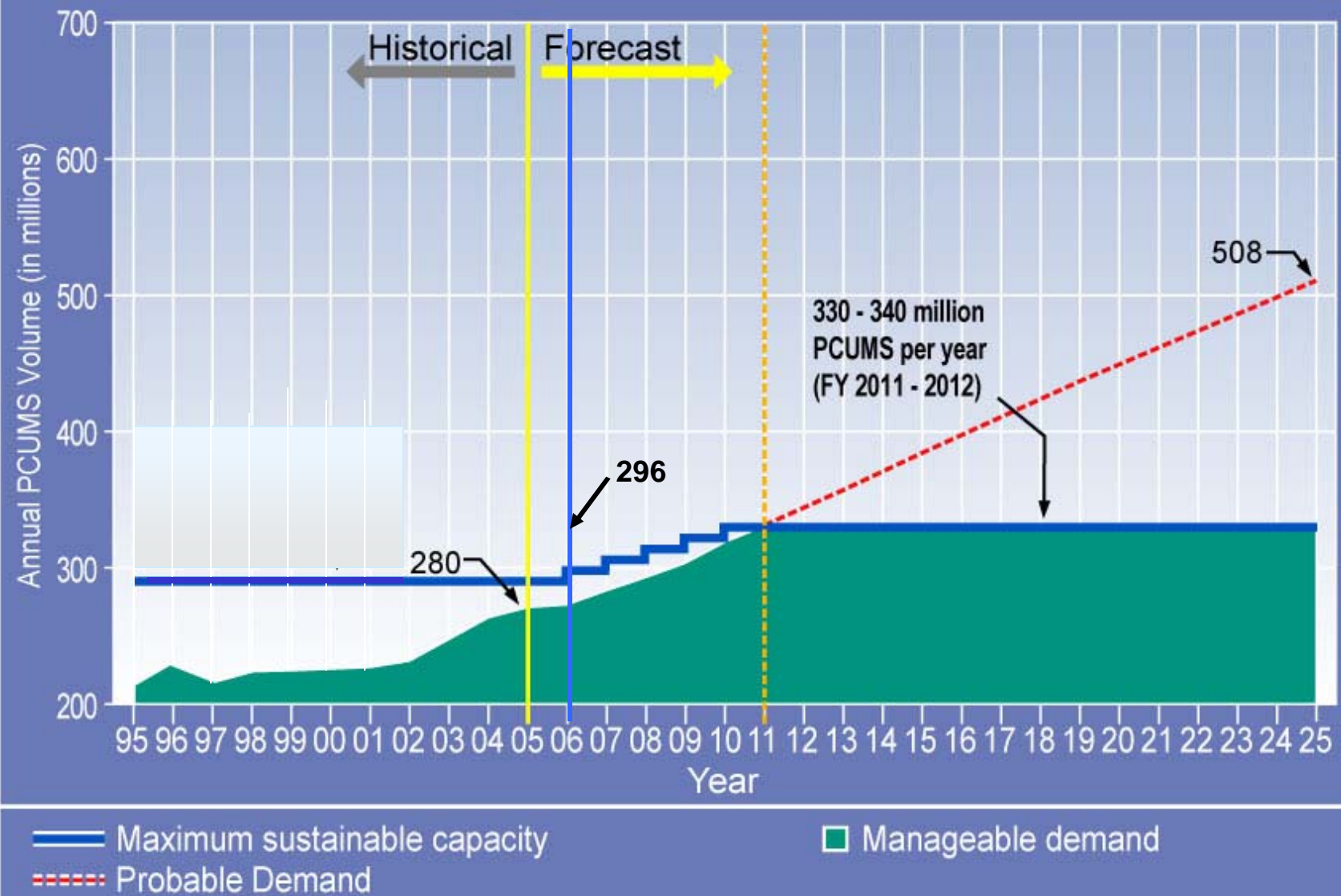
Infrastructure Issues: Current and Future

- Container imports are expected to double by 2020
- Rail freight tonnage is expected to increase by 50% by 2020
- Air cargo volume is expected to increase by 5% every year through 2016
- From 1970 to 2003, vehicle travel on highways rose by 161% but road mileage only increased by 6%
- Congestion costs US\$63 billion in wasted time & fuel
- Half of the nation's 257 locks on inland waterways are functionally obsolete
- Of the 590,750 bridges, 27% are structurally deficient or obsolete
- Most ports have not been dredged to handle the 10,000-TEU jumbo containerhips being built



Source: American Society of Civil Engineers (ASCE) – 2005 Report Card for America's Infrastructure, U.S. DoT

Maximum Sustainable Capacity of the Canal

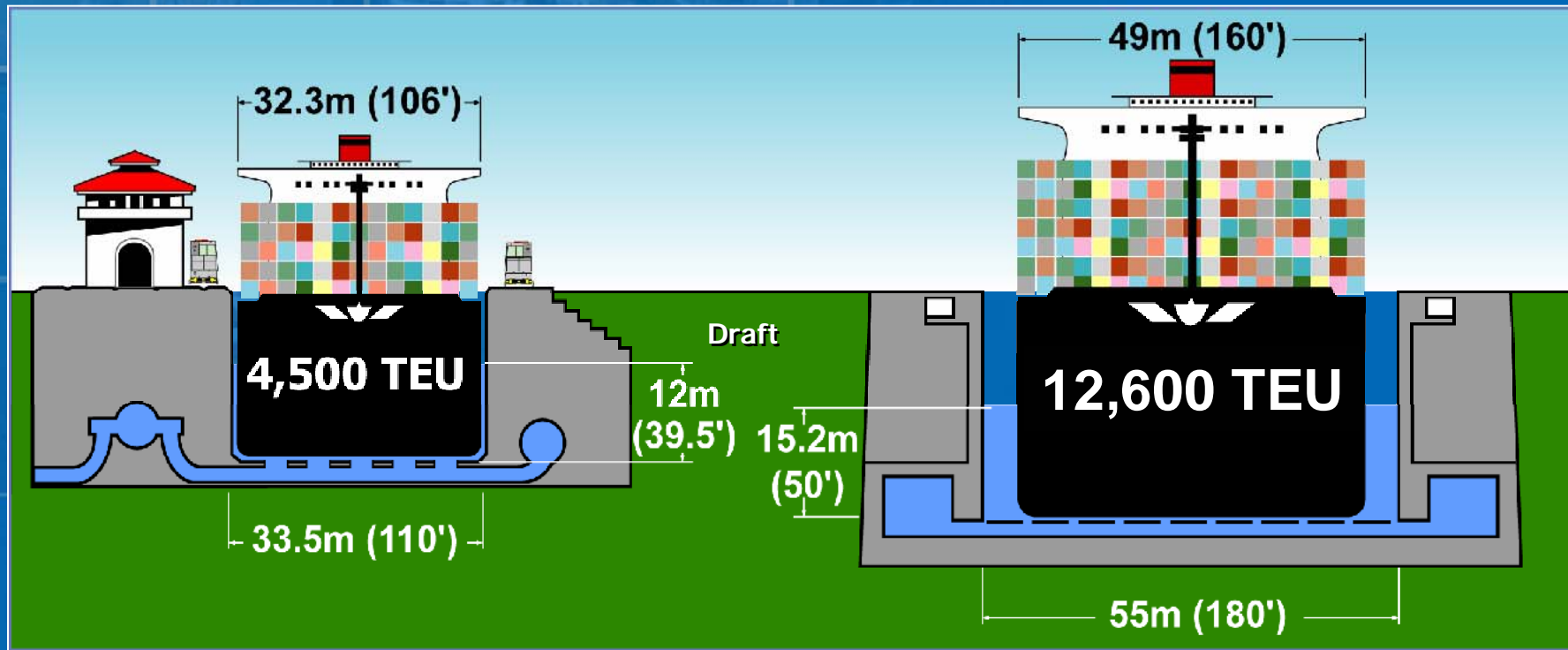


The improved existing Canal could sustainably handle up to 330 - 340 million annual PC/UMS tons

Pospanamax Locks and Vessel Dimensions

Existing Locks

New Locks



Chamber Length 305m (1,000')
Max. Vessel LOA 294.3m (965')

Chamber Length 427m (1,400')
Max. Vessel LOA 366m (1,200')



Program Components

Dredging of the Sea Entrance Navigation Channels



Program Components

Dredging of the Sea Entrance Navigation Channels



Program Components

Pospanamax Locks

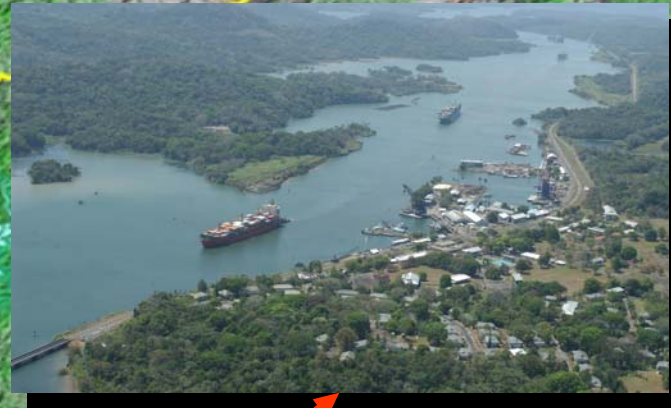
**Pacific and Atlantic Locks
(29.66 – M m³ Dry Excavation)
1 Contract**



Program Components

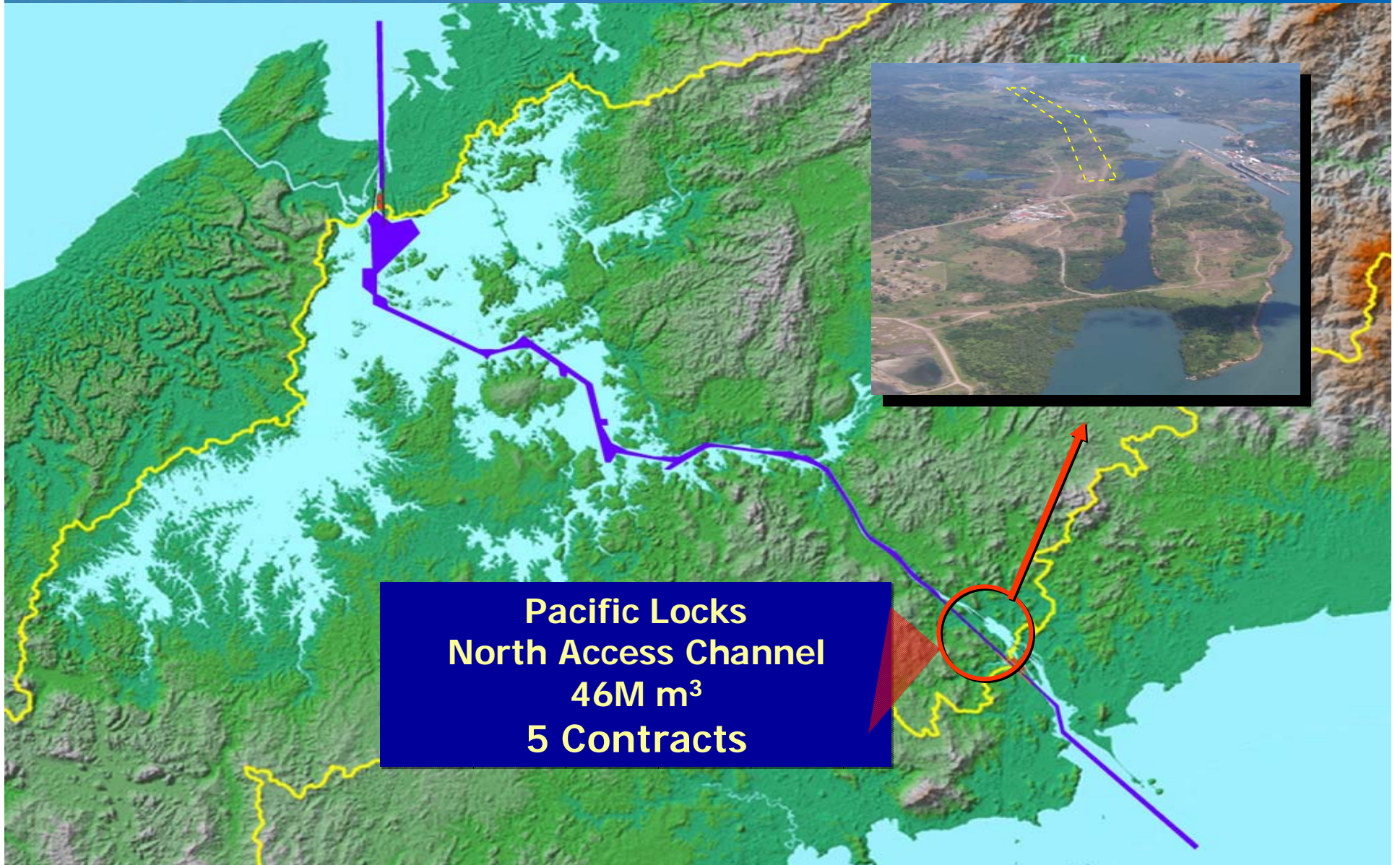
Dredging of Gatun Lake and Culebra Cut Navigation Channels

Deepening and Widening
of Gatun Lake and Culebra Cut
Navigation Channels
(Dredging - 23 M m³)



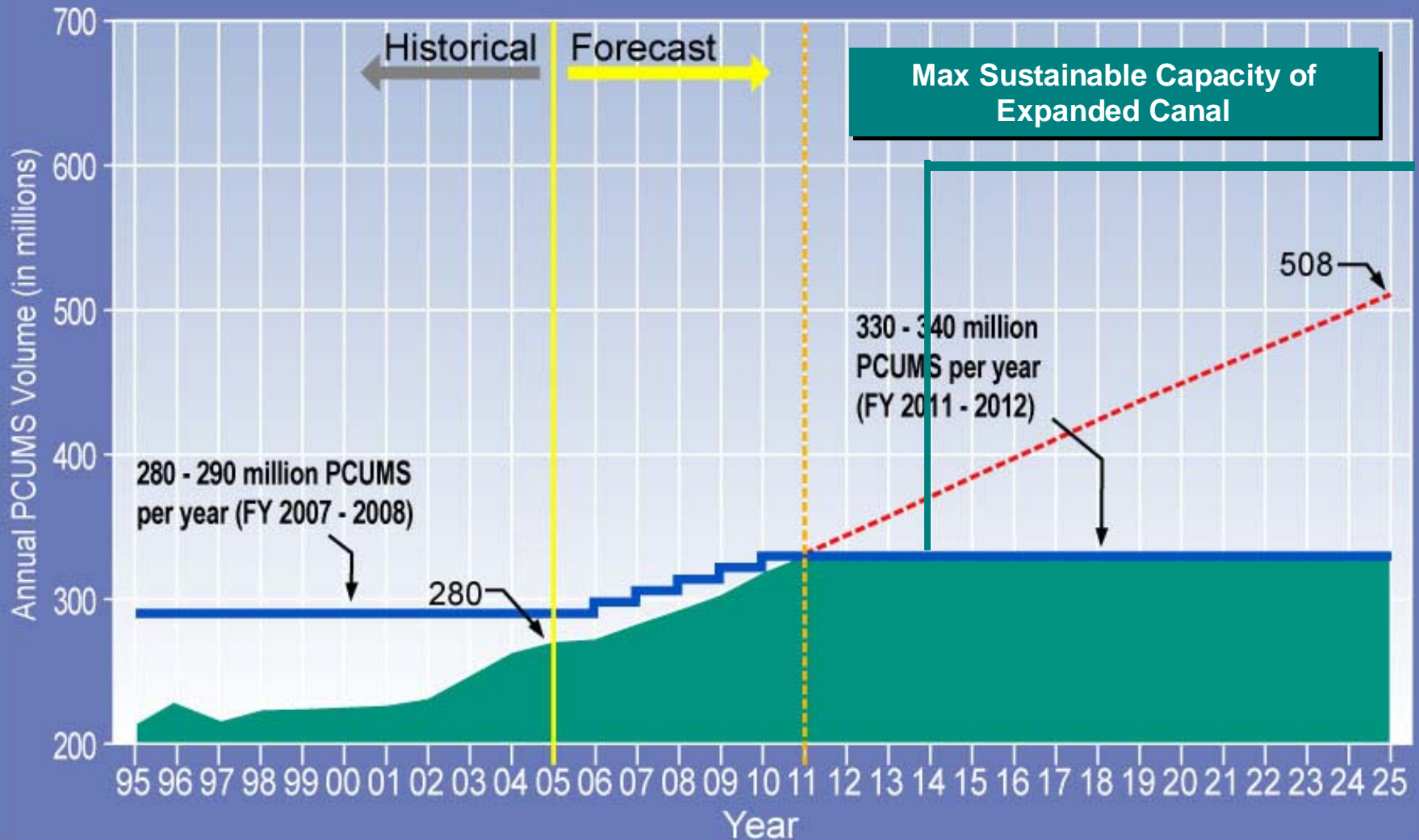
Program Components

Pacific Locks North Access Channel



Pacific Locks
North Access Channel
46M m³
5 Contracts

Maximum Sustainable Capacity of the Canal

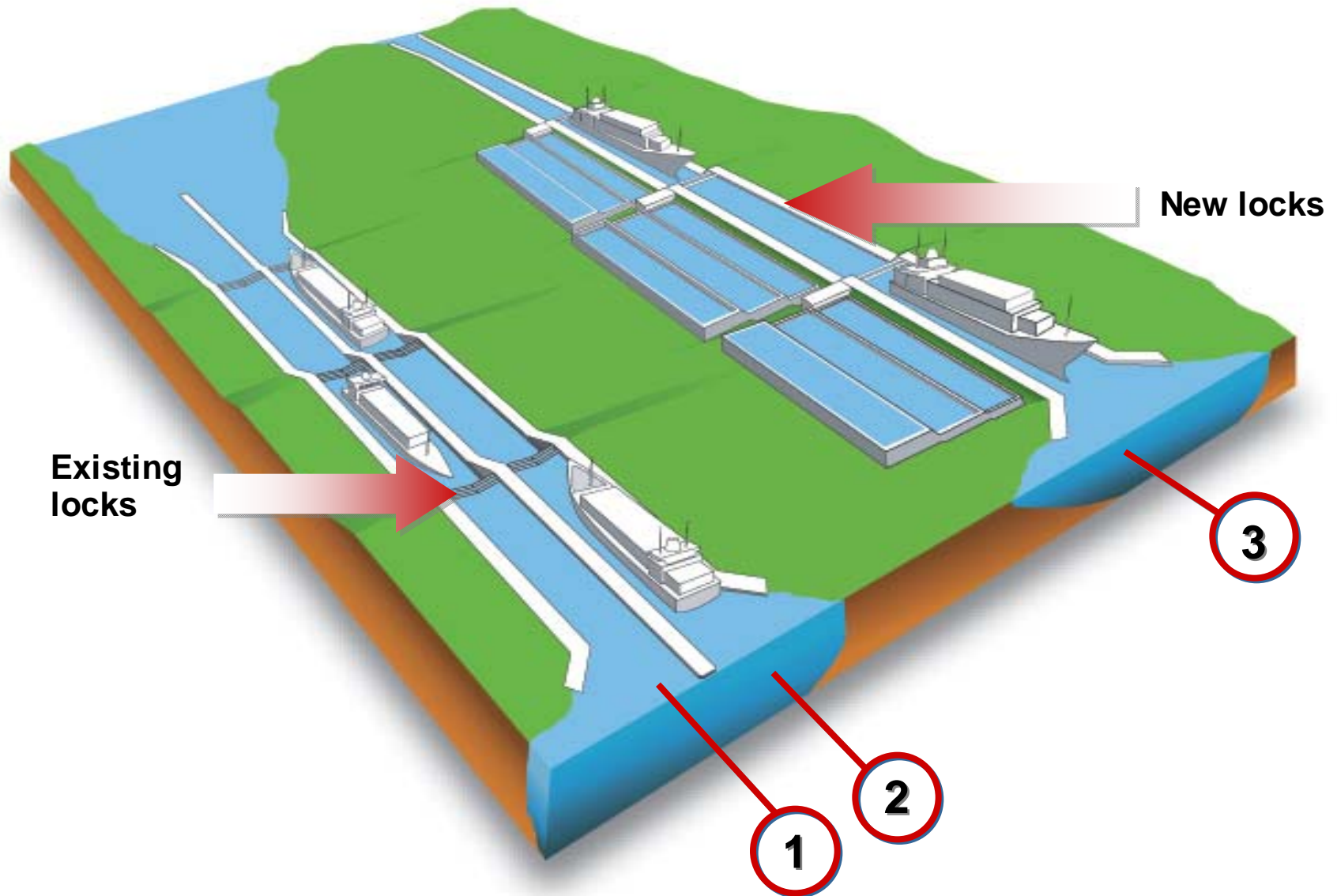


— Maximum sustainable capacity

■ Manageable demand

- - - Probable Demand

Third Set of Locks



Conceptual Design



Location for the new Pacific Locks and access channel



Location for the new Atlantic Locks



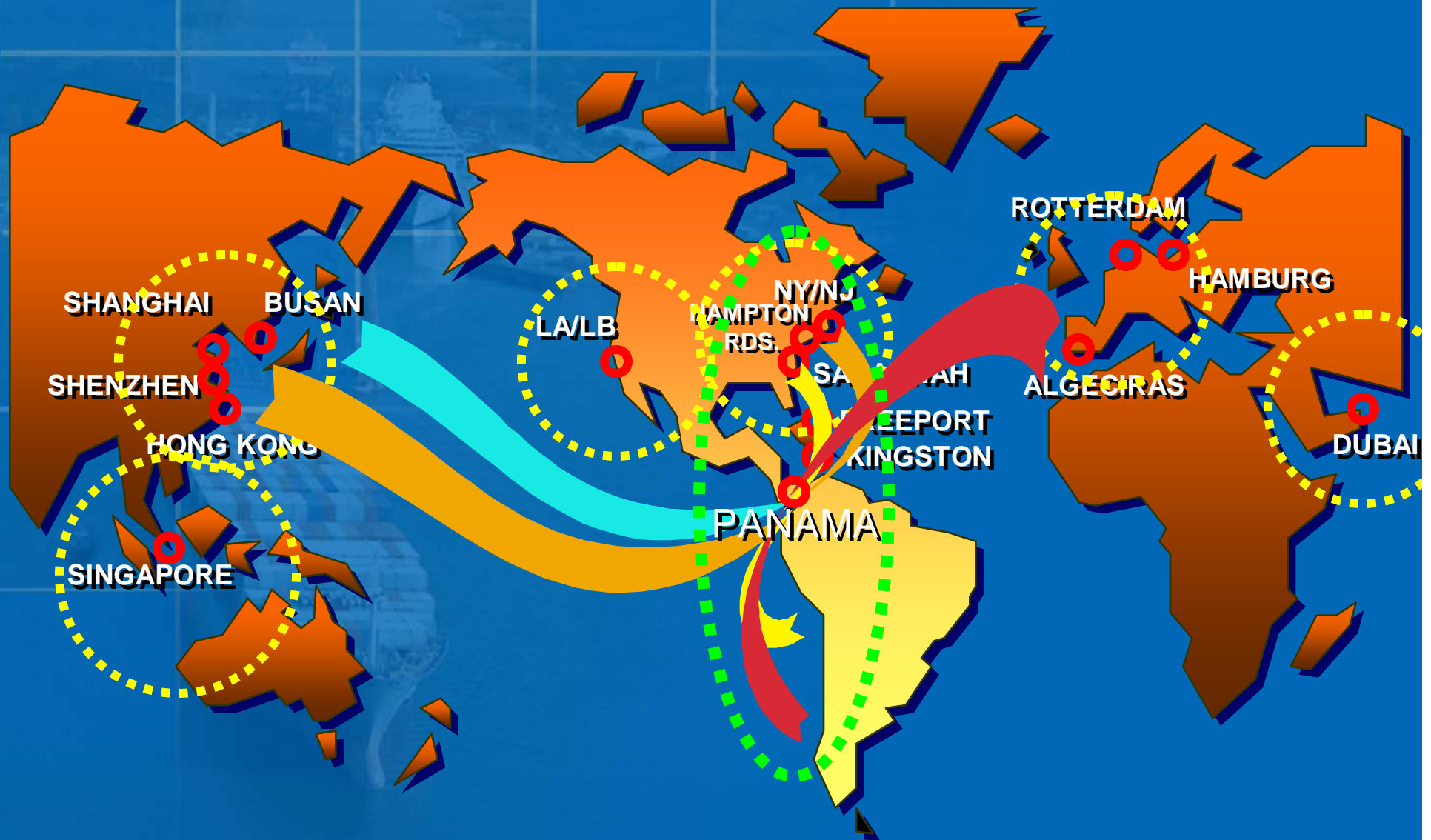
Main Logistics Hubs



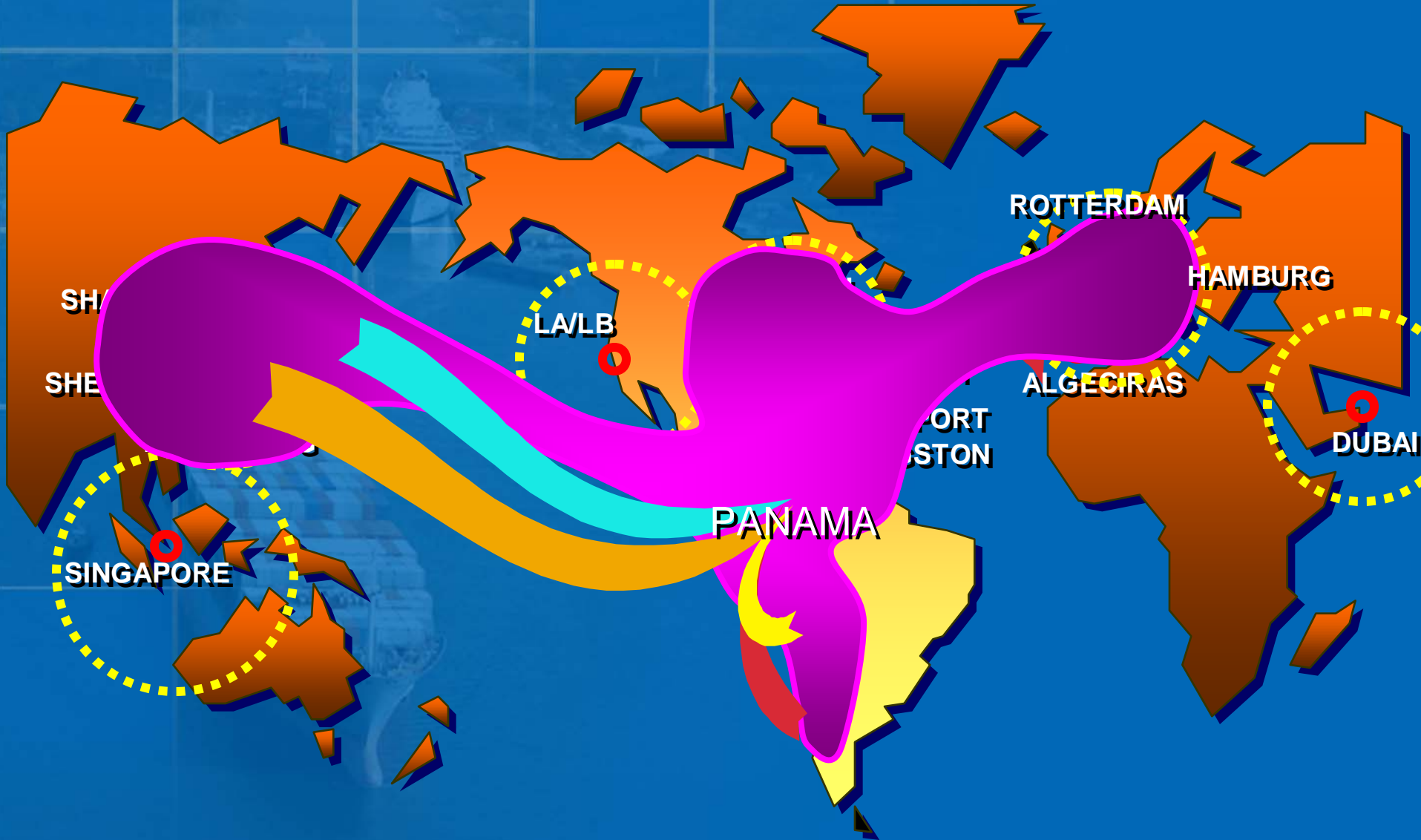
Main Logistics Hubs



Main Logistics Hubs



Main Logistics Hubs



Ports that Connect with Mother Ships



Value of the Interoceanic Route and the Panama Canal Service



Ports are interconnected through Weekly Port Container Services using the Panama Route

Source: ACP Database and Compair Data - 2006

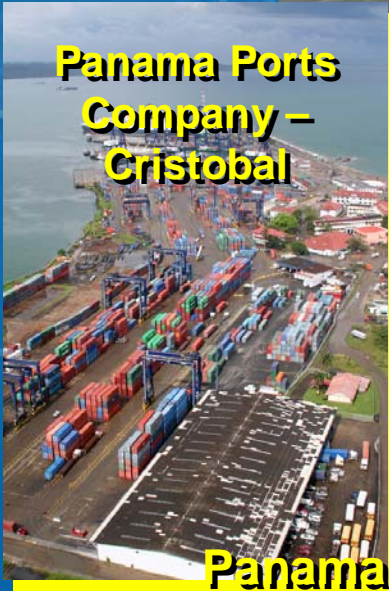
Manzanillo International Terminal (MIT)



Colon Container Terminal



Panama Ports Company – Cristobal



Panama Ports Company - Balboa



Port Development in Panama





1996: 235 KTEUs
2006: 2.94 MTEUs



	Panamax Cranes	PPX	Total
PPC-BCZ	7	8	15
PPC-CRI	3	3	6
CCT	4	6	10
MIT	2	14	16
	16	31	47





Forecast
2006: 2.94 MTEUs
2010: 4.6 MTEUs
2015: 7.4 MTEUs



Tocumen Airport



Trans-Isthmian Pipeline



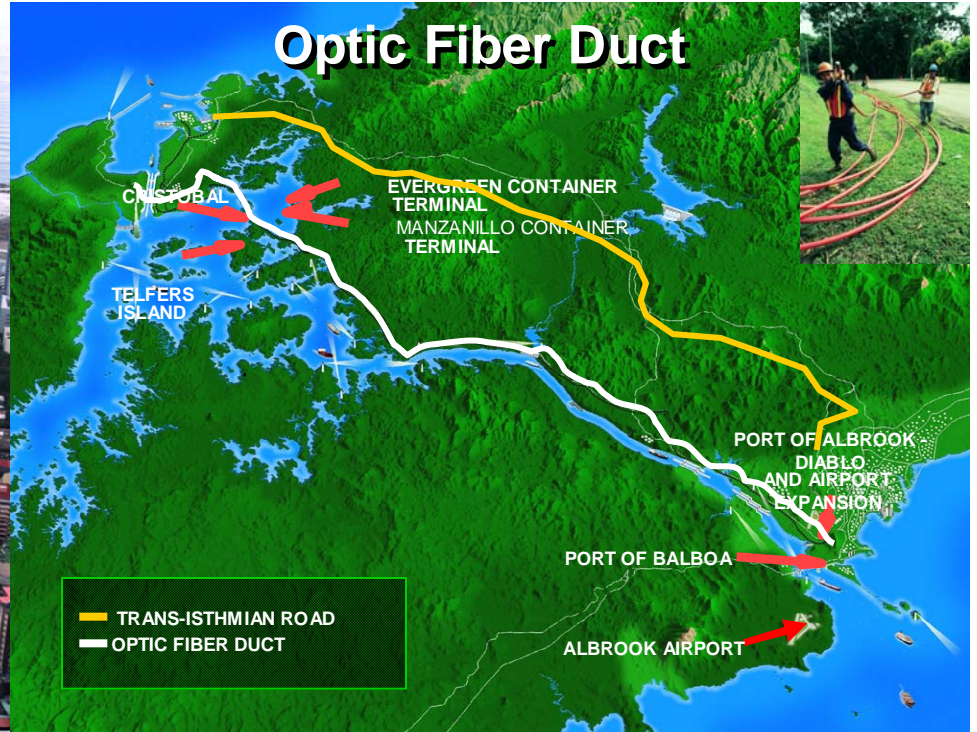
Inter-American Highway



Railroad



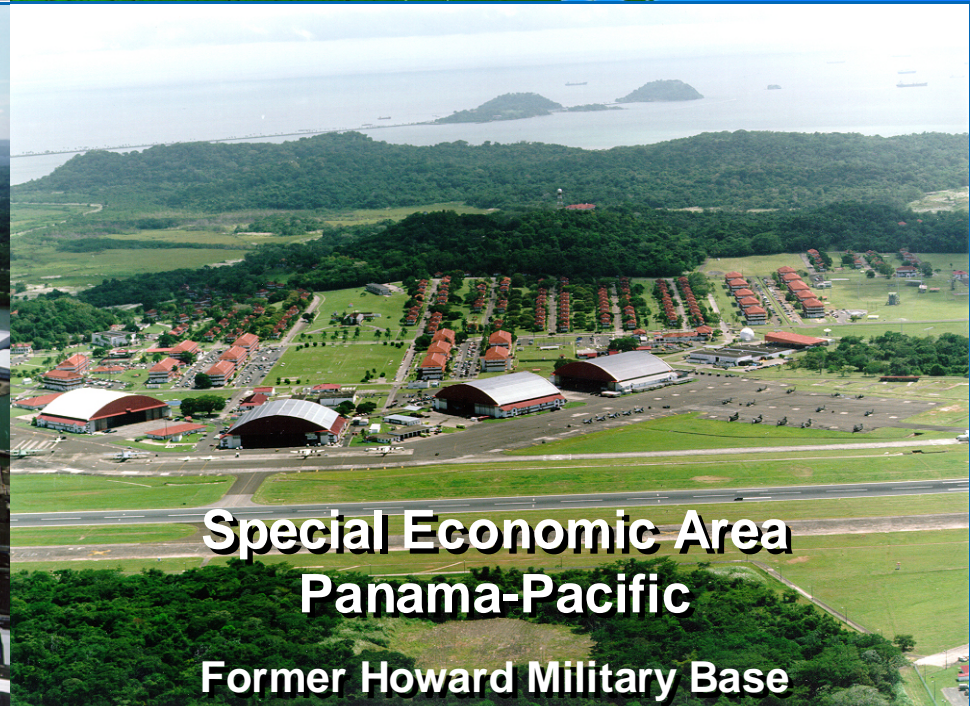
Banking Center



Optic Fiber Duct



Colon Free Zone



**Special Economic Area
Panama-Pacific
Former Howard Military Base**

Panama: America's Most Important Logistics and Transportation Hub





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