



The Future of the Suez Canal



**Shifting International Trade Routes
Tampa, January 15-16, 2009**

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Board Member
Suez Canal Authority**

The Suez Canal links the Mediterranean Sea to the Red Sea.



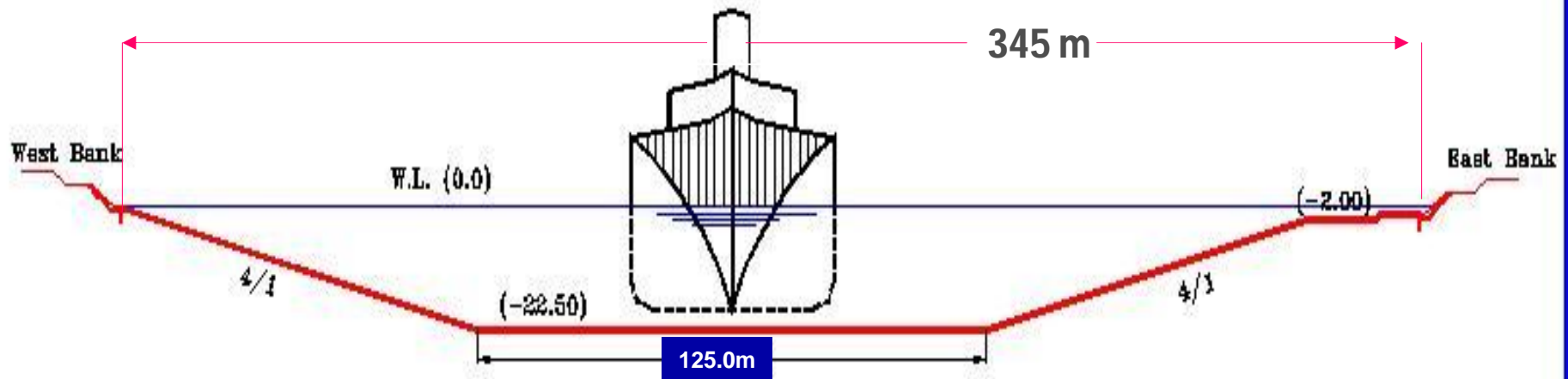
**It was opened for international navigation on
17 th November 1869.**

Map of The Suez Canal

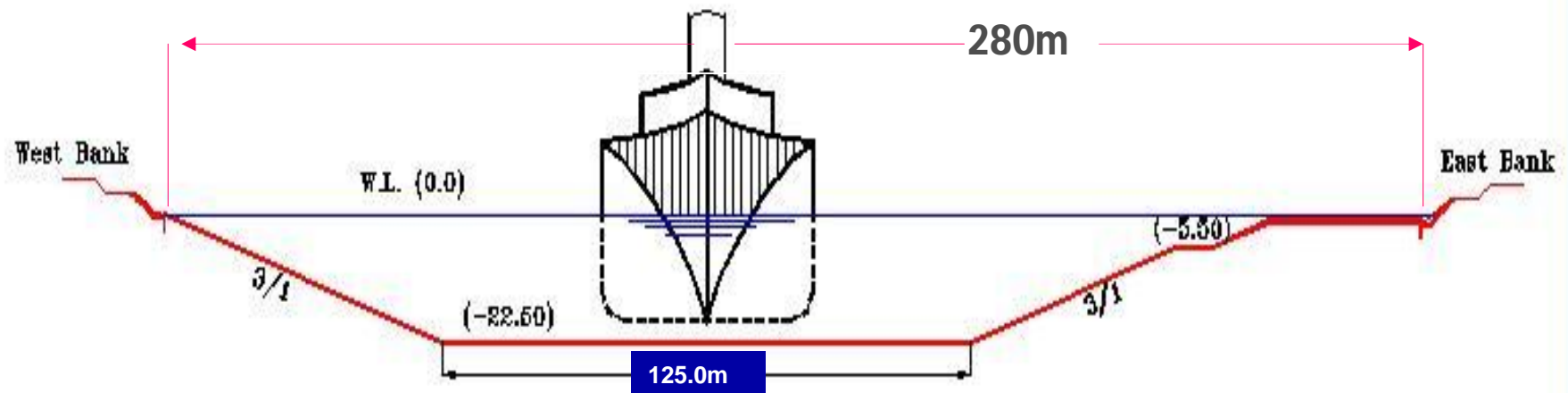


The Characteristics of the Suez Canal (1869 – 2008)

| Description | | 1869 | 2008 |
|-----------------------------|----------------------------|------------|--------------------|
| Overall Length | km | 164 | 190.25 |
| Doubled Parts | km | 0 | 78 |
| Depth | m | 7.5 | 22.5 - 24 |
| Cross Sectional Area | m² | 304 | 5000 - 5200 |
| Max. Draft | feet | 22 | 62 |
| Max. tonnage | 10³ tons | 5 | 220 |



Typical cross section of Suez Canal
in the north part (north km 61.00)



Typical cross section of Suez Canal
in the south part (south km 61.00)

Double parts of the Canal

Port Said by-bass

1



It's Length 36.5 KM

Acc. In 1980

Ballah by-bass

2



It's Length 9 KM

Acc. In 1955

Temsah by-pass

3



It's Length 5 KM

Acc. In 1980

Deversoir & Bitter Lakes by-passes

4



The Length 27.5 KM

Acc. In 1980

The Present Canal 2009



Emma Maersk

(First Transit 22/9/2006 S.B.)



| | |
|-------------|--------|
| Length (m) | 397.71 |
| Beam (m) | 56.4 |
| Draught (m) | 16.02 |

| | |
|------|---------|
| DWT | 158 200 |
| SCNT | 158 030 |

DUHAIL - LNG Tanker

First Transit: 1st April 2008



| | |
|---------------------|---------------|
| Length (m) | 305.57 |
| Beam (m) | 50 |
| Draught (ft) | 40 |
| SCNT | 121667 |

The Main Advantages of the Suez Canal

- **Longest Canal in the world without locks.**
- **Navigation goes day and night.**
- **Liabile to be widened and deepened when required to cope with the expansion in ship sizes of the world fleet .**
- **The VTMS system is securing the highest standards of safety to the vessels transiting the Canal.**

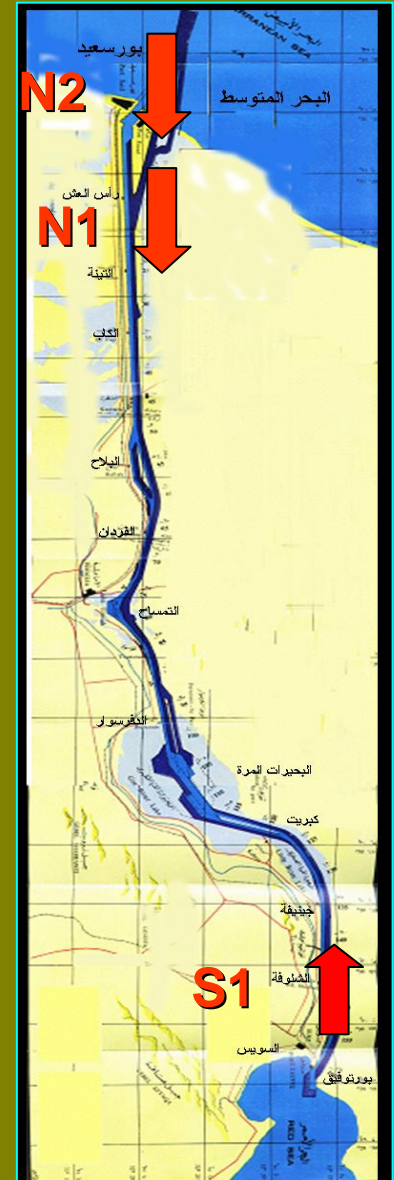
Suez Canal Traffic



Traffic System



- The navigation is run in a convoy system .
- Ships transit the Canal in three convoys daily :
 - 1- From Port Said at 0000 hrs going south.
 - 2- From Port Tawfiq at 0600 hrs going north.
 - 3- From Port Said at 0630 hrs going south.
- Permissible speed for loaded tankers 13 Km/hr.
- Permissible speed for other ships 14 Km/hr.
- Average transit time from 12 to 16 hrs

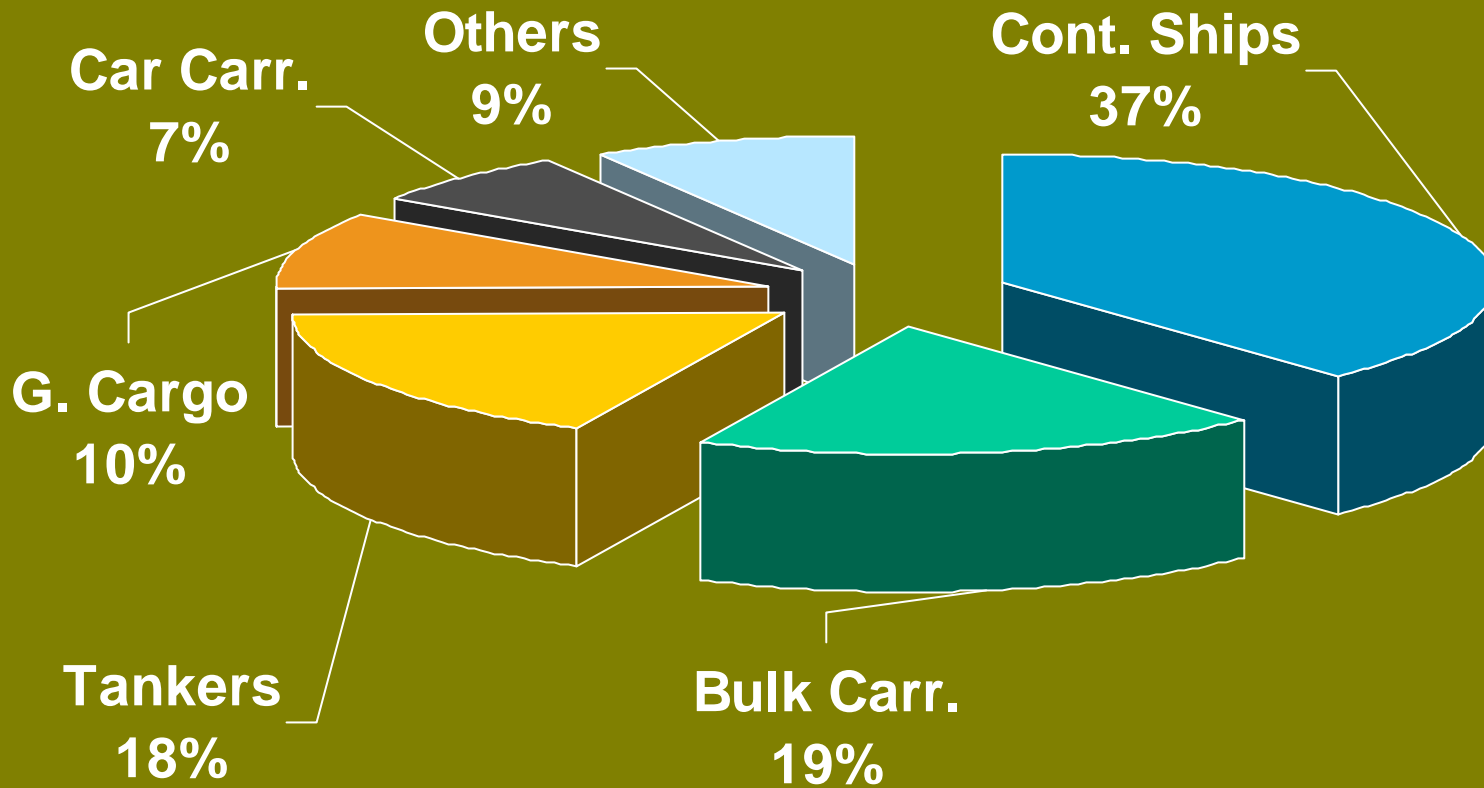


Development of the Suez Canal Traffic 1998-2008 (Numbers)

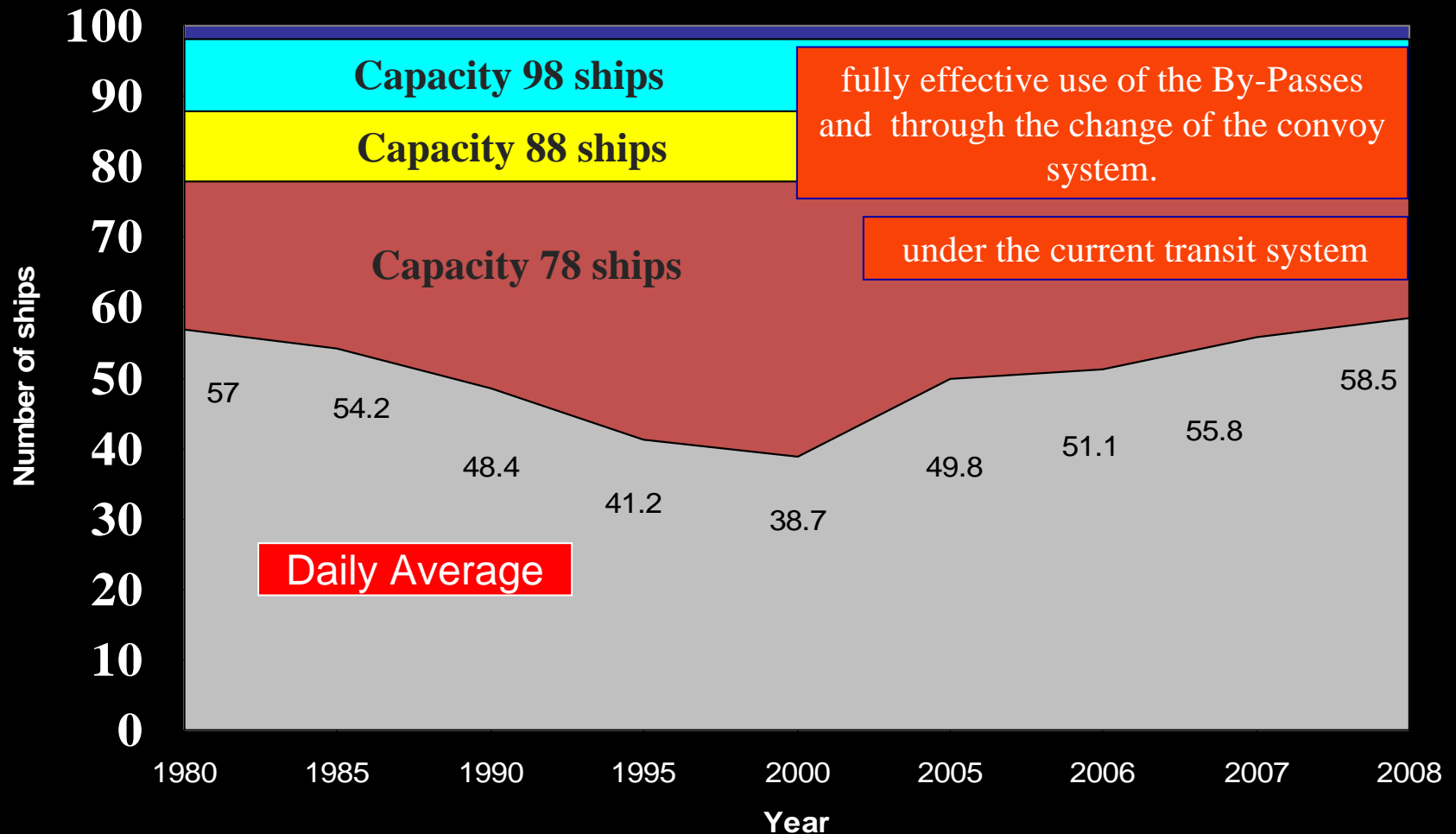


Ship Type distribution in the Canal(2008)

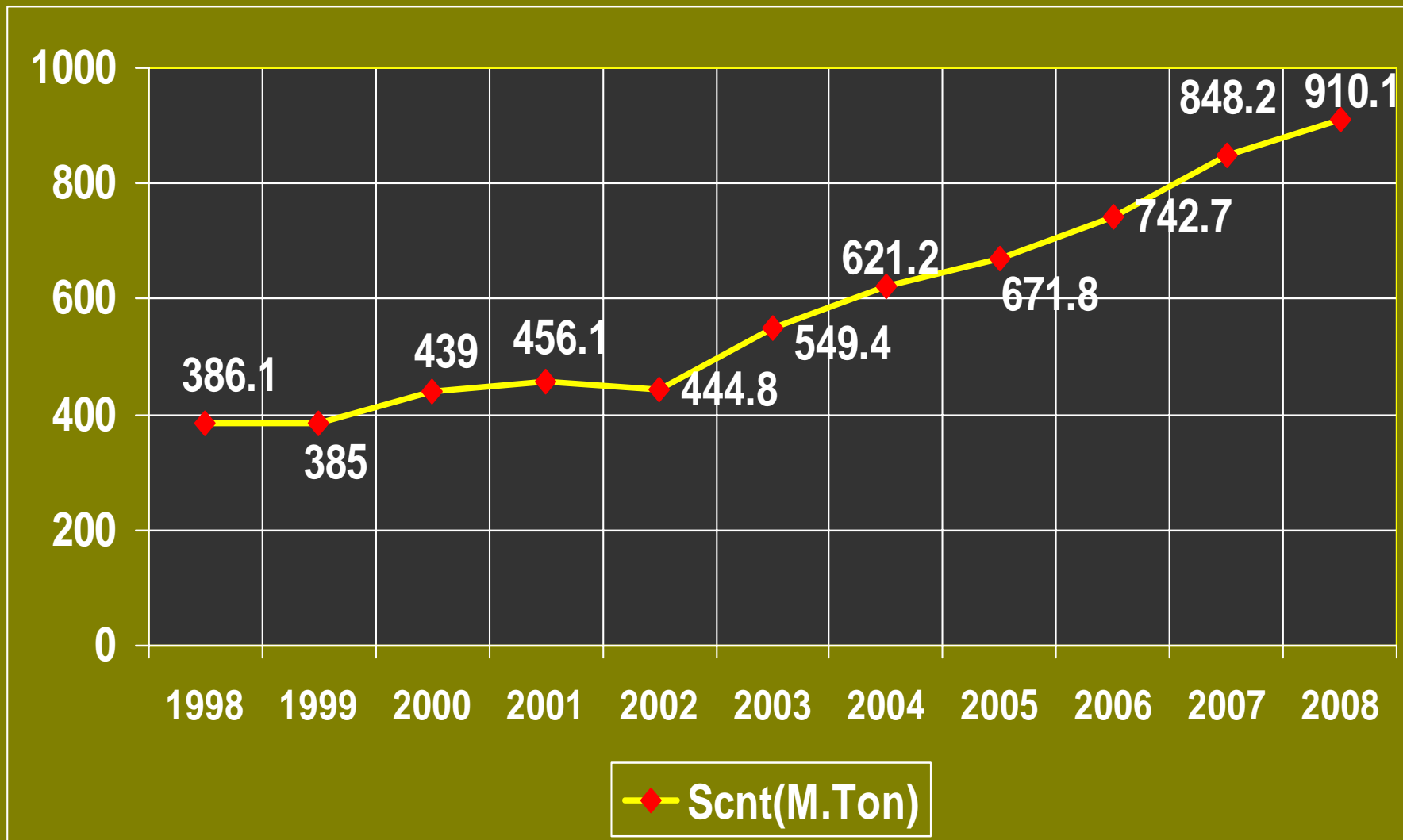
(Numbers)



Daily average number of transits against Suez Canal capacity

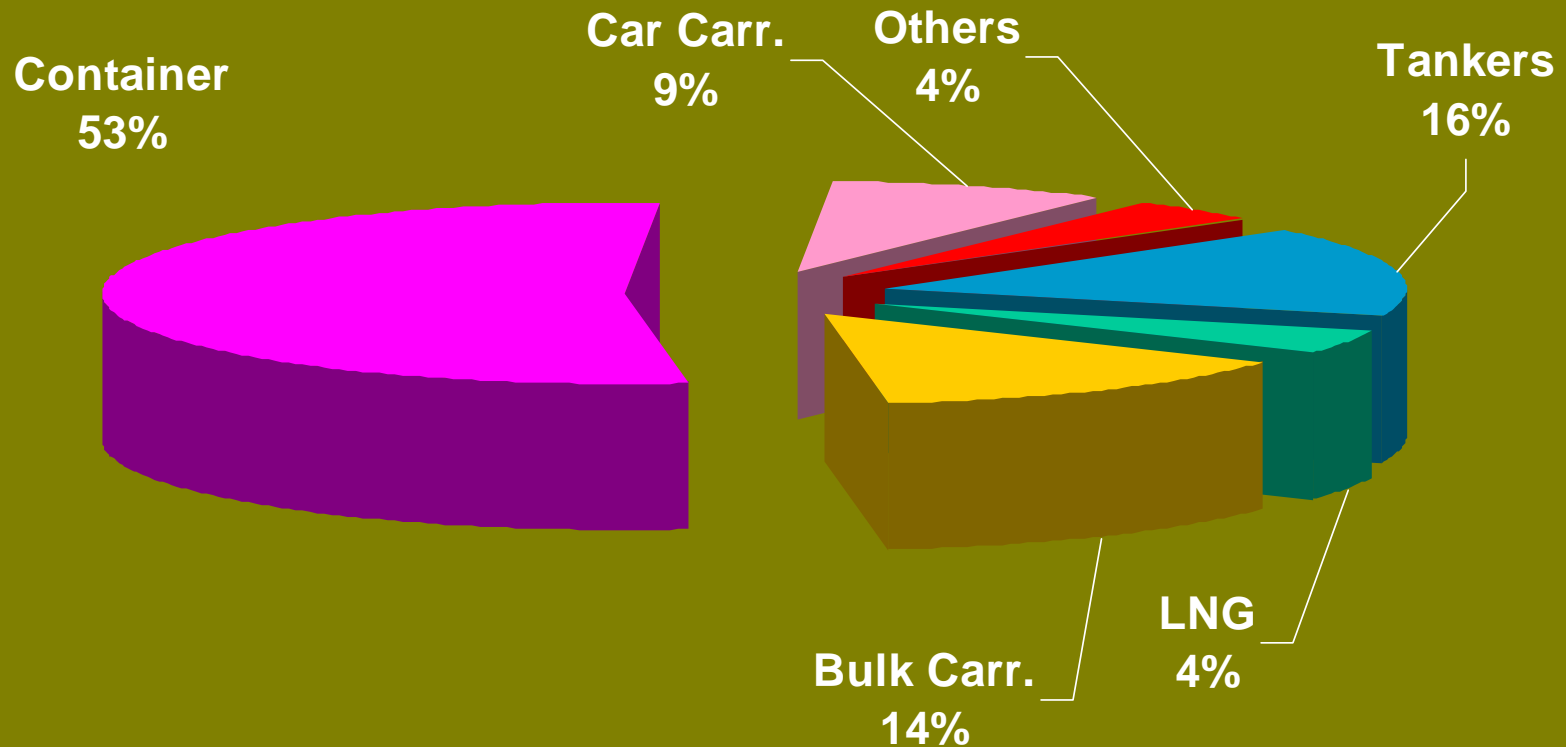


Development of Suez Canal Traffic 1998-2008 (SCNT)



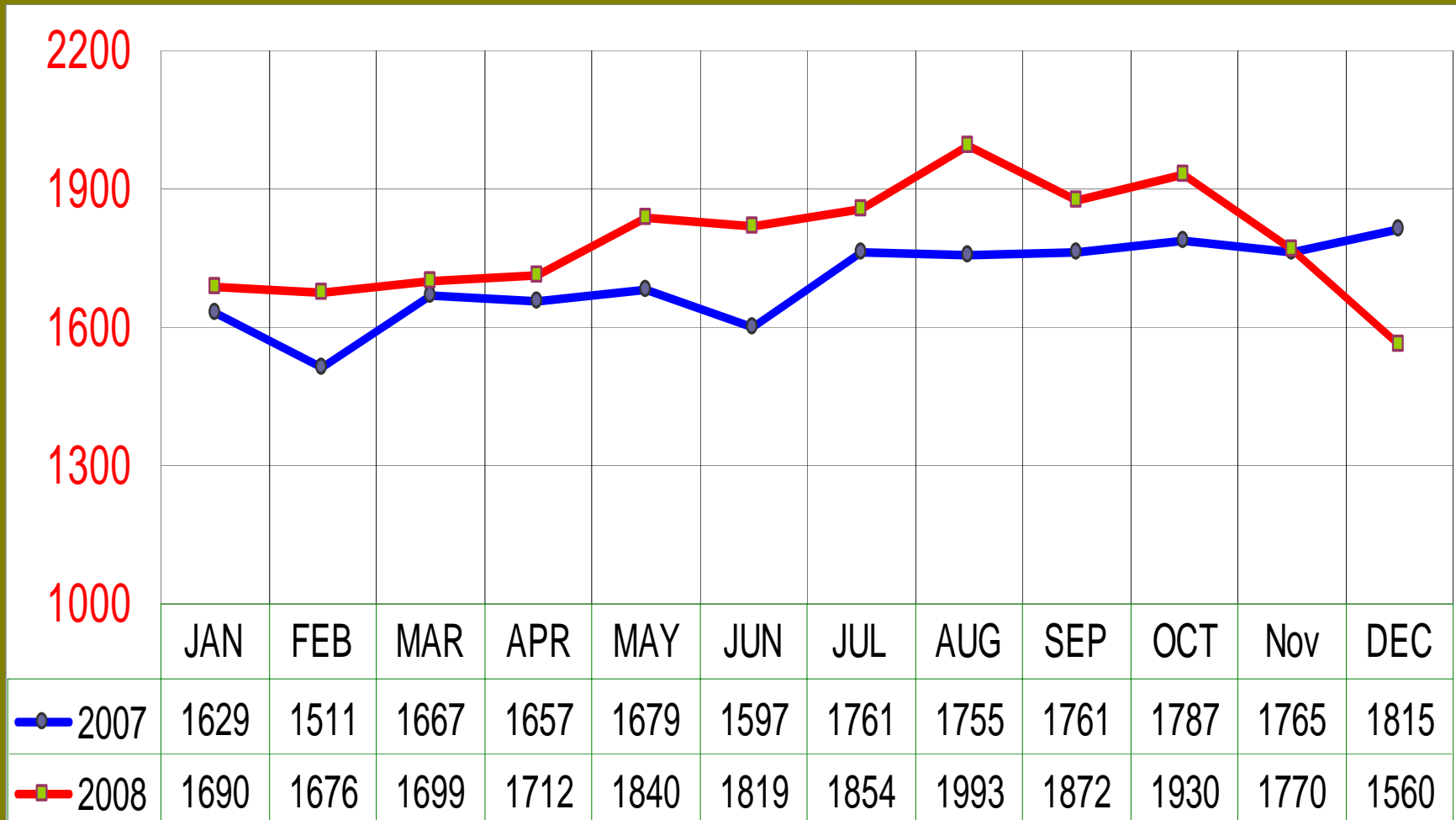
Ship Type distribution in the Canal(2008)

(SCNT)



Suez Canal Traffic Development 2007&2008

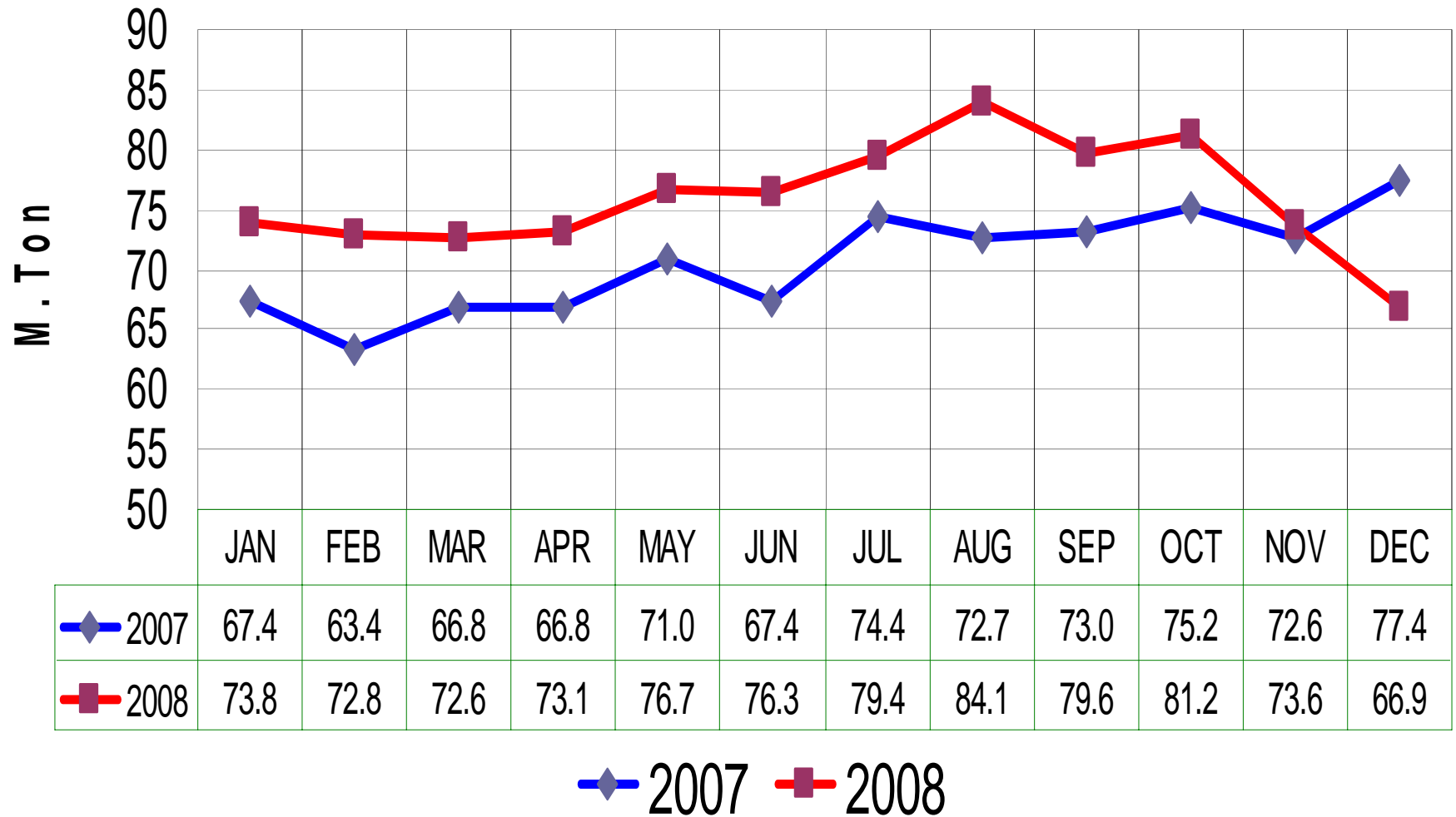
Number of ships



● 2007 ■ 2008

Suez Canal Traffic Development 2007&2008

SCNT



The Importance of the Suez Canal

- The geographical position of the Suez Canal makes it the shortest route between East & west as compared with the Cape of Good Hope.
- The Canal route achieves a saving in distance between the ports East & West the Canal, the matter that is translated into saving in time, fuel consumption and ship operating costs .
- About 10% of the world seaborne trade passes through the Suez Canal.

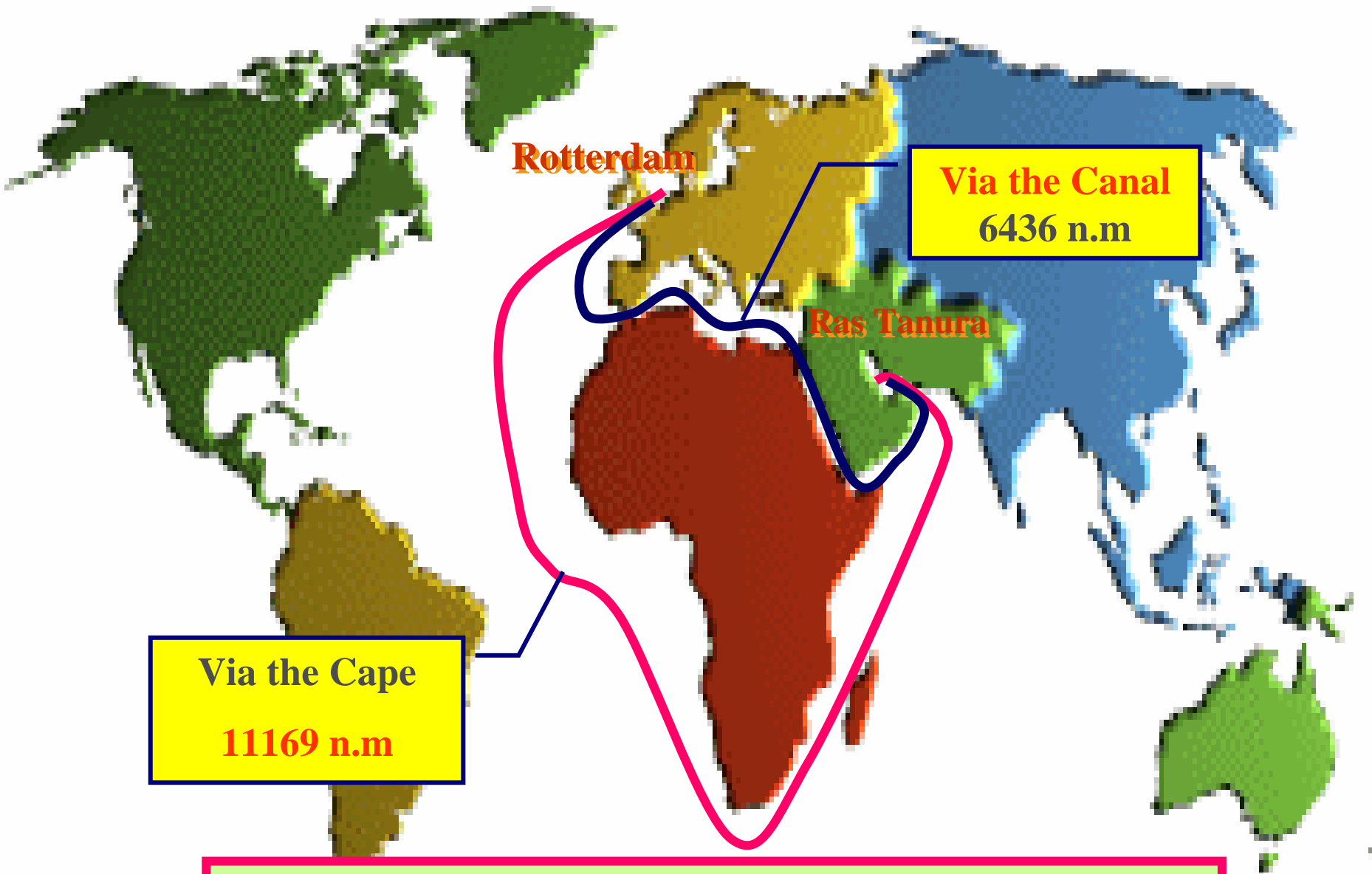
Saving in Distance Via Suez Canal and Alternative Routes

A- Cape of Good Hope

B- Panama Canal

A- Saving in distance achieved by the Canal compared To Cape of God Hope

| From | To | Nautical miles | | Saving | |
|------------|-------------|----------------|-------|-----------------|----------|
| | | SC | Cape | Saving by miles | % saving |
| Ras Tanura | Constanza | 4144 | 12094 | 7950 | 66% |
| | Lavera | 4684 | 10783 | 6099 | 57% |
| | Rotterdam | 6436 | 11169 | 4733 | 42% |
| | New orleans | 9645 | 12299 | 2654 | 22% |
| Jeddah | Piraeus | 1320 | 11207 | 9887 | 88% |
| | Rotterdam | 6337 | 10743 | 4406 | 41% |
| Tokyo | Rotterdam | 11192 | 14507 | 3315 | 23% |
| Singapore | Rotterdam | 8288 | 11755 | 3647 | 29% |



Rotterdam

Via the Canal
6436 n.m

Ras Tanura

Via the Cape
11169 n.m

Saving in distance via the Canal
From Ras Tanura to Rotterdam (4733 n.m: 42%)

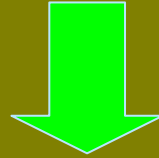
| From New York To (Mile) | Suez | Panama | Difference |
|-------------------------|-------|--------|-------------|
| Hong Kong | 11632 | 11301 | -331 |
| Laem Chabang | 11002 | 12645 | 1643 |
| Singapore | 10204 | 12537 | 2333 |
| Colombo | 8600 | 14073 | 5473 |

B – Suez/Panama



| | Suez | Panama | Diff. |
|--|-------|--------|-------|
| From Halifax - Hong Kong (mile) | 11140 | 11616 | 476 |

Development of the Suez Canal



1- Navigational Channel

2- Equipment and Machinery

**3-Safety of the Traffic and Navigational
Support**

4-Development of Pricing Policies



1-Development of the Navigational Channel

Development of the Navigational Channel

A . From the year 1869 till the present

| Description | Unit | 1869 | 1956 | 1962 | 1981 | 1994 | 1996 | 2001 | 2008 |
|----------------------|----------------|------|------|------|-------|--------|--------|--------|-----------|
| Overall Length | km | 164 | 175 | 175 | 187.5 | 190.25 | 190.25 | 190.25 | 190.25 |
| Doubled Parts | km | - | 29 | 29 | 78 | 78 | 78 | 78 | 78 |
| Depth | m | 7.5 | 14 | 15.5 | 19.5 | 20.5 | 21 | 22.5 | 22.5-24 |
| Cross Sectional Area | m ² | 304 | 1200 | 1800 | 3600 | 3800 | 4200 | 4800 | 5000-5200 |
| Max. Draft | feet | 22 | 35 | 38 | 53 | 56 | 58 | 62 | 62 |
| Max. tonnage | 1000 tons | 5 | 30 | 80 | 150 | 175 | 190 | 220 | 220 |

B. On going Development

- The work is going on for the stage of 66 ft draft.**
- It is planned to be completed by the end of this year .**
- Upon completed, the canal depth will be 24 m and the cross sectional area will be 5200 m² allowing loaded tankers up to 240000 tons D.W.T. to transit the canal and will be able to accommodate :**
 - 99 % of the Bulk carriers.**
 - 60 % of the Tanker fleet.**
 - 100 % of all other types of vessels.**

C. Future Development

- Another stage for widening and deepening the canal is expected to be carried out depending upon the feasibility studies. This stage will be for increasing the draft up to 72 ft.**
- By the end of this stage, the canal depth will be 27m and the cross sectional area will be 6750 m² allowing loaded tankers up to 350000 tons D.W.T to transit the canal.**
- Increase the lengths of double parts.**



**2 - Development of
Equipment
and Machinery**

MASHOUR



- Cutter suction dredger **31050 hp**
- Year of built **1996**
- Max. dredging depth **35 m**

Mecca



Trailing Suction Hopper dredger

- Hopper capacity 10000 m³
- Total installed power 25032 hp
- Year of built 2004
- Max. dredging depth 35 m



One of the biggest tugs of 160 bollard pull tons



Floating Crane Enkaz 500 tons



Floating dock of 55000 tons



**3-Safety of traffic
and navigational
support**

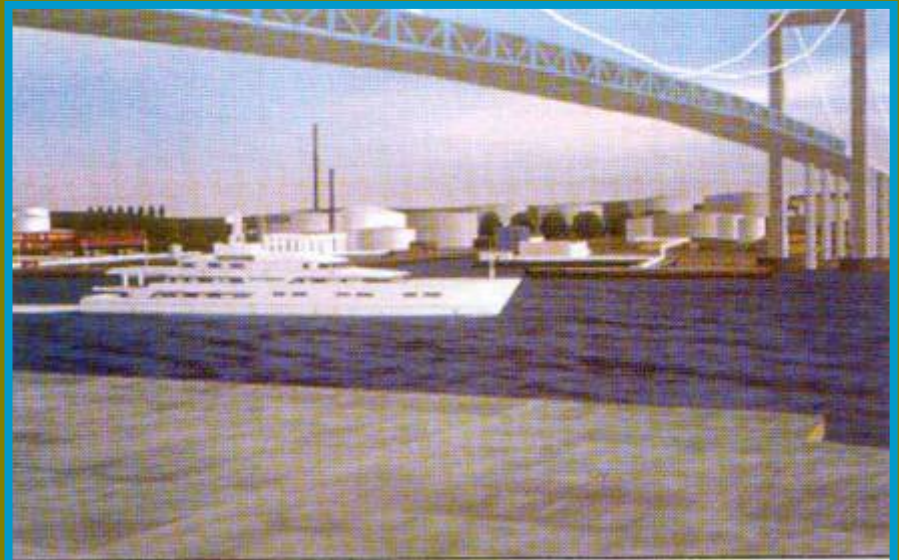
A- Suez Canal Vessel Traffic Management System (VTMS)



Targets achieved by the System :

- **Increasing the standards of safety of vessels transiting the canal through a radar net work covering all the canal.**
- **Radar surveillance covering an area of 30 Km at port-Said and Port Tawfik, and that gives an automatic announcement of arrival time of all vessels getting into the waiting area.**
- **Monitoring all the vessels transiting the canal to calculate average speed, separation distance, passing time at signal stations and to plot the real transit pattern.**
- **Participating in environment protection by decreasing the number of accidents in the Canal and dealing with them in the proper way in case they occur.**

B - The Maritime Training & Simulation Centre



Main Center's Objectives

- **Training of S.C.A Pilots on the main maneuvers for transiting the canal safely.**
- **Training the pilots in order to be able to control the vessel on different weather conditions.**
- **Analyzing any accident in the canal.**
- **Studying the expected behavior of special types of ships before their first transit.**
- **Updating the technical information of the pilots to the latest technology in the field of pilotage.**

C. Suez Canal Research Center

- **Suez Canal Authority Research Center is one of the Egyptian institutions specialized in conducting research and technical studies in the fields of design and development of navigation canals, port and harbor engineering, shore protections , and marine structures .**

The research center consists of five Sections :

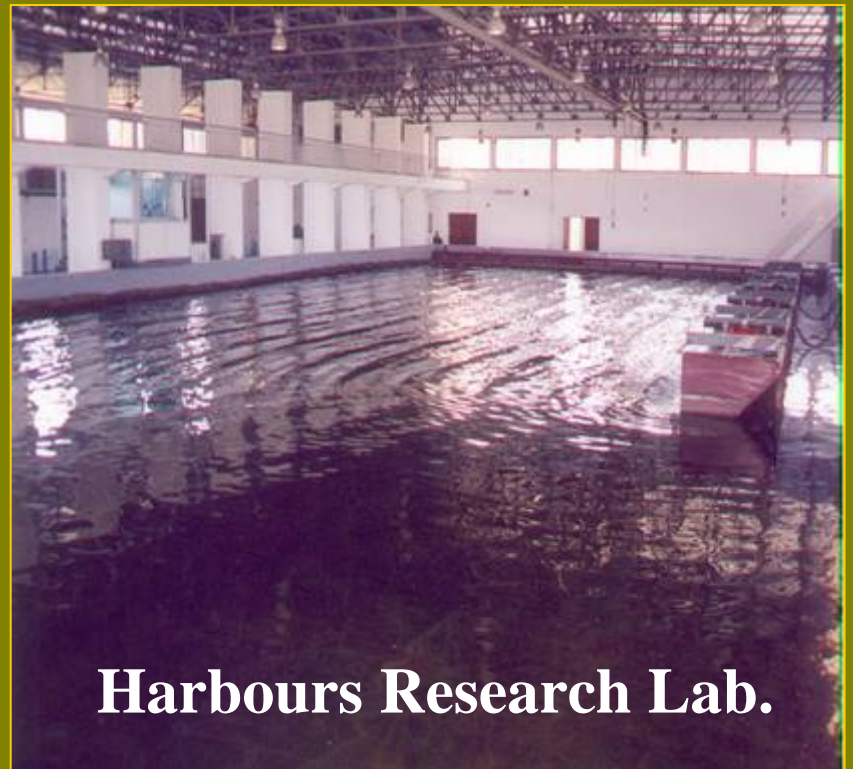
1. Canal and safety of navigation research section
2. Harbor and coastal research section .
3. Soil mechanics sections.
4. Testing of materials and quality assurance section .
5. Maintenance of equipment and instrument section .



Canal Research laboratory



Canal current measurements



Harbours Research Lab.

4-Development of Pricing Policies

The philosophy of the Suez Canal toll's is based on the following considerations :

- 1- Comparison of the ship voyage cost through the Canal and through other alternative routes.
- 2- Ship type and size.
- 3- Market conditions and all the economic factors affecting maritime transportation.
- 4- Keeping the Suez Canal the first choice for customers.

** The Tolls is revised and published yearly.

The regular dues can attract most of our customers ,and for the rest we offer other policies as :

1-Establishing an elastic toll's system to encourage all the potential trade to pass through the Canal:

- Long- haul vessels (Case by Case)**
- VLCCs in ballast condition (20% reduction for ships from Caribbean and US Gulf to AG) .**
- Environmentally friendly vessels (2% reduction for Double Hull)**
- LNG carriers (35% , plus Other reductions offered to certain quantity of gas transported via the Canal)**

2-Maintaining full complementary and coordinating policy with SUMED Pipeline.

3-Time saving service for vessels arriving after the time limit against a surcharge of 3%,5% or 10% subject to vessel's time of arrival.

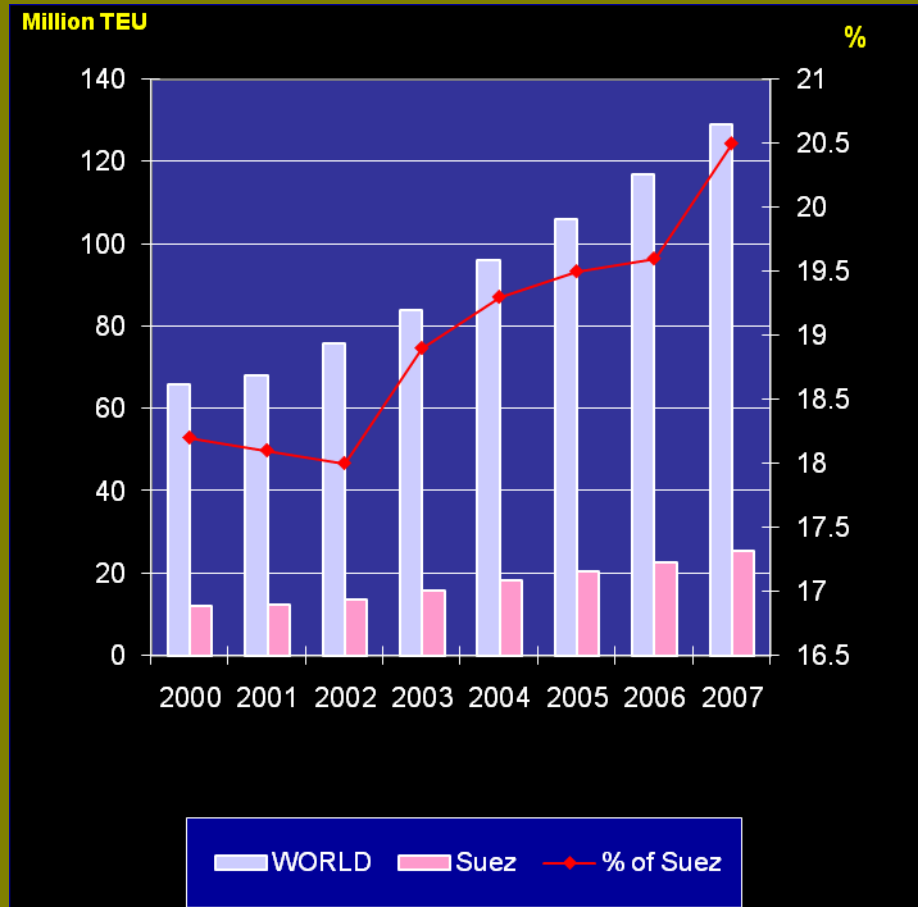
Suez Canal Container Traffic



Importance of Suez Canal

1000 TEU (LOADED)

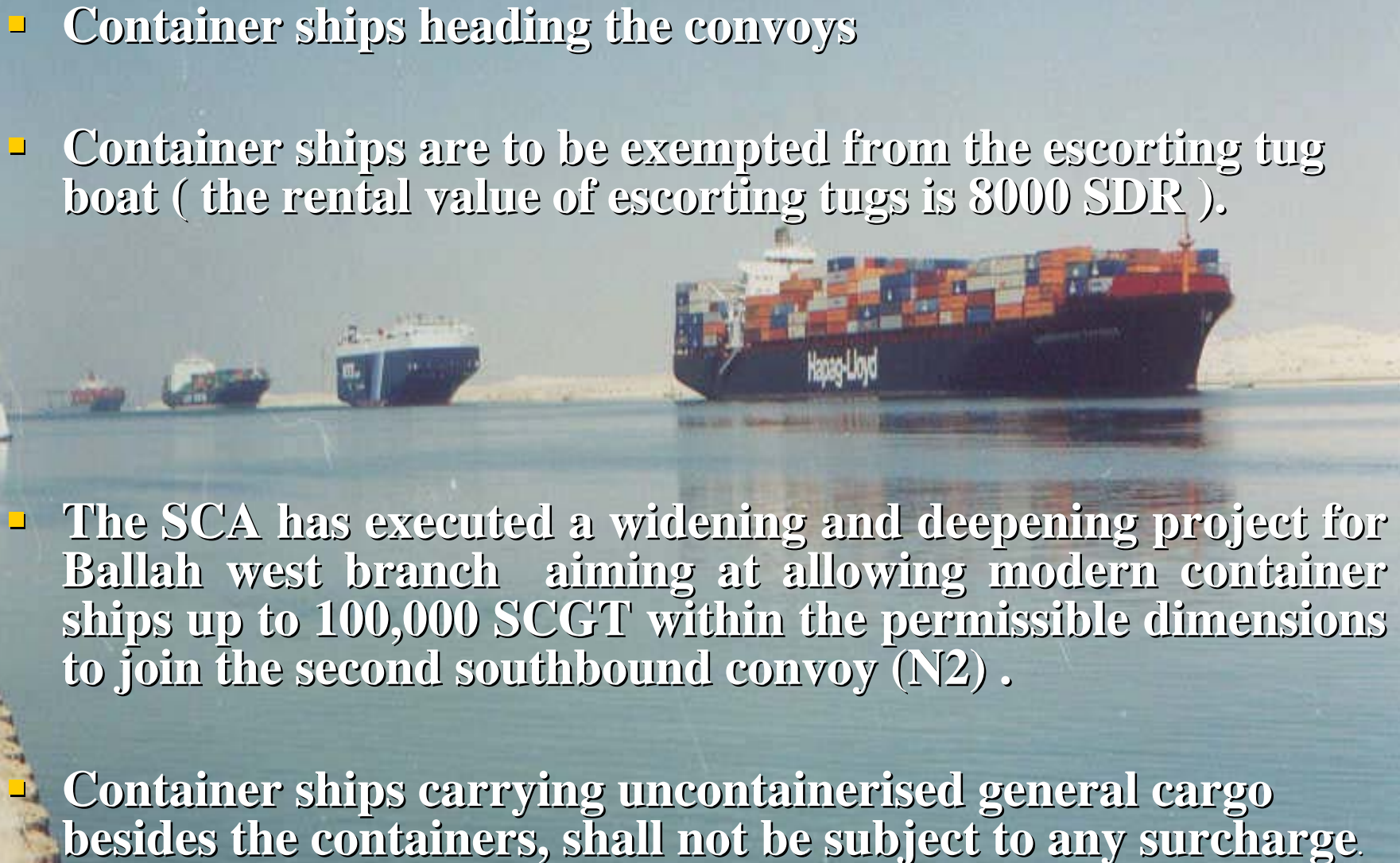
| Year | World Trade* | % | Trade via Suez** | % | % of Suez to world |
|------|--------------|------|------------------|------|--------------------|
| 2000 | 66000 | — | 11998 | — | 18.2 |
| 2001 | 68000 | 3.0 | 12291 | 2.4 | 18.1 |
| 2002 | 76000 | 11.8 | 13700 | 11.5 | 18.0 |
| 2003 | 84000 | 10.5 | 15852 | 15.7 | 18.9 |
| 2004 | 96000 | 14.3 | 18535 | 16.9 | 19.3 |
| 2005 | 106000 | 9.4 | 20505 | 10.2 | 19.5 |
| 2006 | 117000 | 10.4 | 22875 | 11.6 | 19.6 |
| 2007 | 129000 | 10.3 | 26466 | 15.7 | 20.5 |



Source: *Container Intelligence Monthly. Clarkson. March 2008

**Economic Unit. SCA

Facilities and privileges granted to container ships transiting the Suez Canal

- Container ships heading the convoys
 - Container ships are to be exempted from the escorting tug boat (the rental value of escorting tugs is 8000 SDR).
 - The SCA has executed a widening and deepening project for Ballah west branch aiming at allowing modern container ships up to 100,000 SCGT within the permissible dimensions to join the second southbound convoy (N2) .
 - Container ships carrying uncontainerised general cargo besides the containers, shall not be subject to any surcharge.
- 

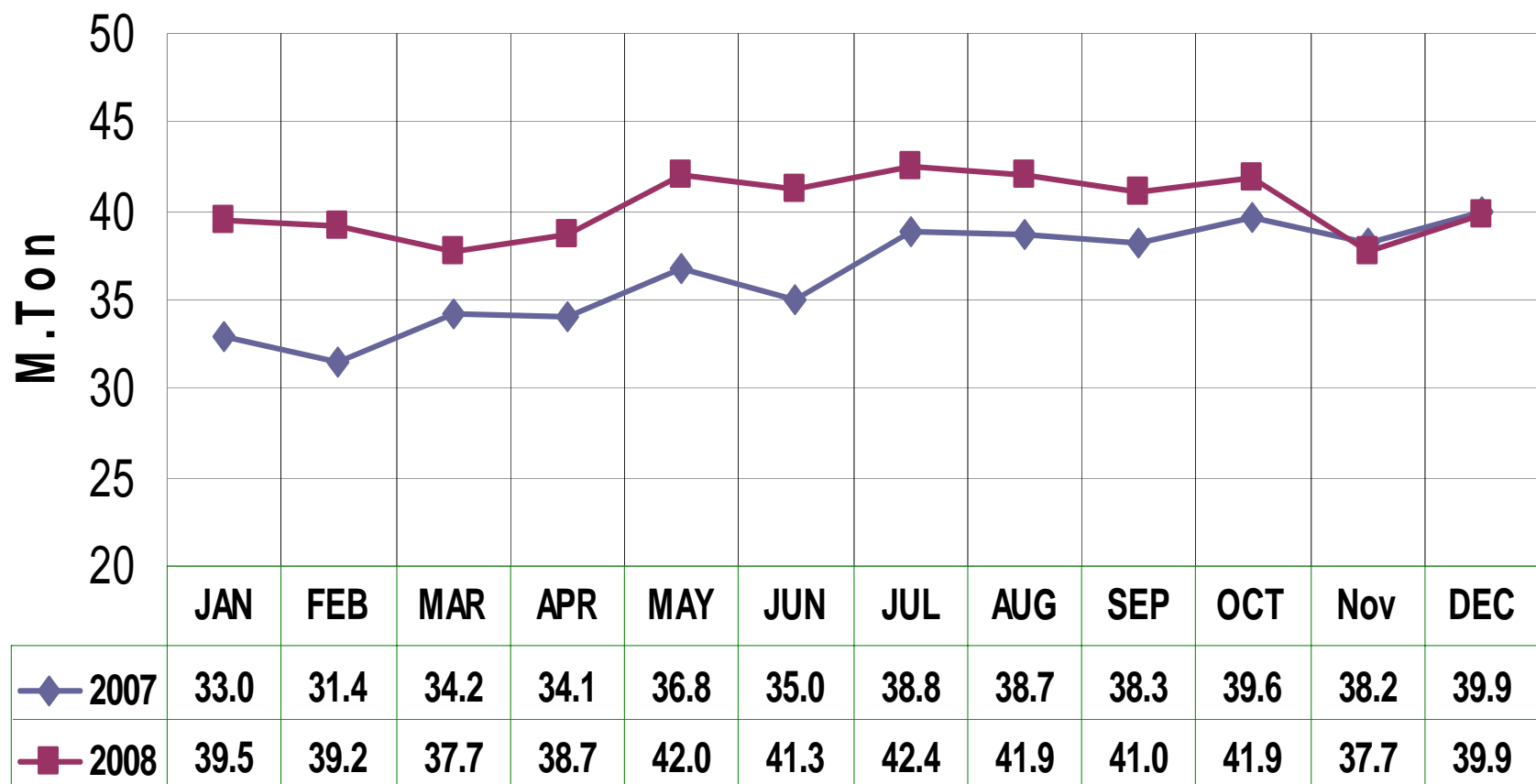
- In favorable navigational conditions, the limit time for arrivals is to be extended, against a payment of a surcharge equal to a percentage of the normal transit dues with a maximum amount.

- **Container ships are to be exempted from extra dues on the top tier, if the top tier contains no more than ten TEU**



Suez Canal Container Traffic Development 2007&2008

SCNT



◆ 2007 ■ 2008

Promoting the Suez Canal Route

Suez Canal Authority signed **Four Memoranda of Understanding (MOUs) with:**

- **The Port Authority of New York & New Jersey On June 14, 2006.**
- **Virginia Port Authority On June 21, 2006 – and updated in **December 12, 2007.****
- **Maryland Port Administration On October 2, 2006 .**
- **Georgia Port Authority on June 2, 2008.**

Signing MOU with Georgia Port Authority June 2, 2008



*New MOU signing
Suez Canal - Halifax*

BY THE END OF TODAY

Jan 15,2009

A NEW MOU WILL BE SIGNED BY

SUEZ CANAL AUTHORITY

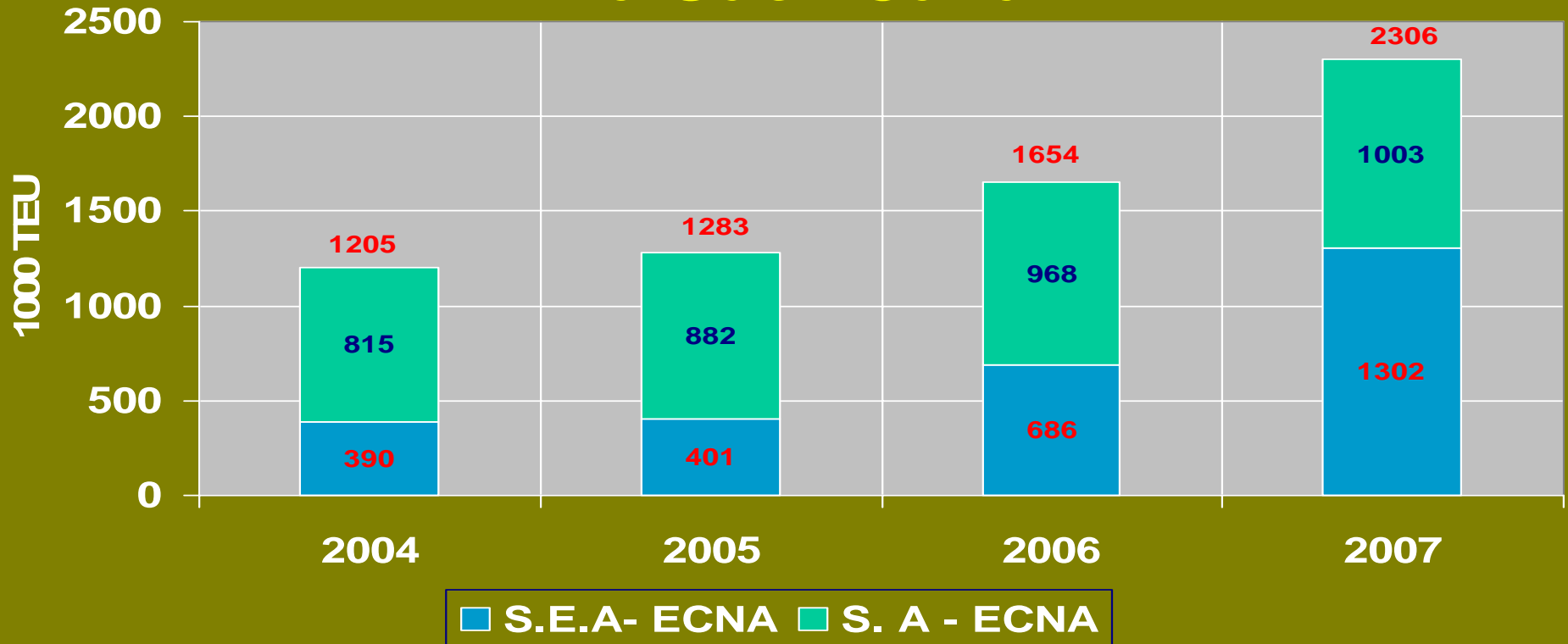
AND

HALIFAX PORT AUTHORITY

Targets of the MOUs :

- **Promoting trade between Asia and the ECNA through the Suez Canal.**
- **Generating business opportunities**
- **Enhancing customer service.**
- **Boosting economic growth**

Development of ECNA-Asia container traffic via Suez Canal



Yearly avg. increase :

Total Container trade via Suez Canal 11.5%

ECNA – S. Asia 5.3%

ECNA-S.E. Asia 35.2%

The SCA spares no effort for the sake of ensuring a safe and secure service for all transiting Vessels; thus contributing to the prosperity of world trade and all nations as well.



**Suez Canal Headquarter
Ismailia**



Thanks