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## **SUEZ 1860-2015**

Speaker

Mr. Dimitri Capaitzis

Old Parliament, Athens, 22/11/2016

**(Bibliotheca Alexandrina)**

**Old Parliament 22 November 2016, 18.00**

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# **SUEZ Canal 1860 – 2015 : D.G. CAPAITZIS Lecture**

## **Bibliotheca Alexandrina : Old Parliament, Athens : 22/11/2016 18.00**

### **1. Ancients**

The idea of access from the Mediterranean to the Red Sea is old. Pharaoh Sesostris (18th century BC) began construction of a canal from the Nile to the Red Sea. Herodotus mentions Pharaoh Necho 2 (7th BC) and similar projects. They were followed by Ptolemy 2 Filadelfos (3rd BC), Trajan (1st AD) and the Arabs with Amr Ibn el As (7th AD).

Till that time it was a local matter for Egypt. Around 1500 AD, however, with the Spanish, Portuguese and other explorations in America, India, Asia and the Far East the crossing from West to East through the Mediterranean became a global matter.

With Bonaparte, during the Egyptian campaign around 1798, the opening of a canal was discouraged by Le Père, who mistakenly calculated the Red Sea to be 10 meters above the level of the Mediterranean, instead of the actual one meter with tide.

In 1847 approximately 3000 passengers with 3,500 camels, 440 horses and 46 wagons in the desert and 4 steam riverboats from Cairo to Alexandria, needed 78 hours for the 250 miles journey from sea to sea. In 1858 a railway line Alexandria, Cairo, Suez was completed, by Stephenson and Galloway, and passage time was thus reduced.

This was the era of rapid development of steam propelled ships, such as Brunel's Great Western in 1838 and others. The idea of the Suez Canal then came forth with Saïd and De Lesseps. The large sailing ships of the time would have had difficulty crossing an almost straight north - south and relatively narrow canal with the prevailing local westerly winds.

### **2. Saïd / Lesseps**

In 1854 Saïd Pasha, son of Mohamed Aly, took over as Wali of Egypt and charged De Lesseps – his mentor in his teen age years to build the Suez Canal.

Ferdinand De Lesseps, son of a diplomat, was consul of France in Egypt. From his first marriage he had five sons and from his second six sons and six daughters.

Following measurements, studies, diplomatic struggles in Constantinople and Europe, approvals and authorizations until 15 December 1858, the «Compagnie Universelle du Canal Maritime de Suez» was founded with the purpose of constructing and operating the Canal for 99 years after completion. Saïd's concession included three privileges: Construction of a freshwater canal from the Nile, Land two kilometres either side all along the Canal and the Corvee, which was very cheap and forced labour by Egyptian fellahs.

Company Capital was : FF 200 million (£ 8 million) ie 400,000 shares of FF500 (£ 20). These were purchased 52% in France, 4% elsewhere and 44% by Saïd. Construction costs were evaluated at FF 160 million (£ 6.4 million) and income of FF 30 million (£ 1.2 million) or 15%. Work began on 25 April 1859.

### **3. Ismail / Nubar / Lesseps**

In 1863 the Saïd died. His successor was his nephew Ismail, son of Ibrahim, who along with his minister Nubar Pacha proceeded to cancel some of the Compagnie's privileges ie Areas either side of the Canal and the Corvee. The freshwater canal had already been finished. The Compagnie had to be indemnified for this with FF 80 million (£ 3.2 million).

The Compagnie was then forced to use personnel from overseas and especially many steam powered machines and operators and to obtain additional finance from loans, bonds etc, as the indemnification sum was not sufficient. The final cost in 1869 amounted to FF 453,645,000 (£ 18 million).

### **4. Machines, Workers**

The Suez Canal works coincided with the great and rapid progress of steam propulsion and industrial development.

The Corvée was quickly replaced by steam excavators, machines, dredgers - dragues a long couloir - barges, tugboats, railways, with many foreign operators and workers. Among them many from the Dodecanese, especially from Kasos and according to the folk song: "Damn you de Lesseps, I would have wished to judge you, for you made the desert bloom, and left Kasos desolate"

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### **5. Inauguration**

On the big day of 17 November 1869, about fifty ships sail from Port Said through the Canal to Ismailia and Suez. First the yacht *Aigle* with Empress Eugenie of France, followed by *Mahroussa* with Ismail, Khedive / Viceroy of Egypt, *Greif* with Francis Joseph, Emperor of Austro-Hungary, *Grille* with the King of Prussia, *Psyche* with the British Ambassador, warships *Yachut* of Russia, *Vulkan* and *Peluse* of Austria, passenger ships *Delta* of P & O and *America* of Lloyd Austria with English tourists from Thomas Cook.

Titled guests, priests, nobles, officers, foreigners and Egyptians, attend several ceremonies and events before and after.

Performance of the opera “*Rigoletto*” was given to the newly opened Opera House of Cairo, instead of specially ordered “*Aida*” by Verdi, which was not ready. The first performance of “*Aida*” in Cairo was on 24 December 1871.

At the entrance to Port Said, a statue of De Lesseps 10m high, with the inscription “*Terram gentilus aperire*”, was erected !

### **6. English, French, Ottomans. Disraeli**

Ismail had ambitions similar to Mohamed Aly's, his grandfather. He wanted independence from the Ottomans, political and economic power in the Middle East and rapprochement with the West. In 1867 he managed to obtain from the Sultan the title of Khedive, namely Regent of Egypt, instead of the current Wali, Governor.

To increase agricultural production, particularly cotton - which benefited from the American Civil War 1861-1865 - about 5 million acres in cultivation land were added, with the additional infrastructure of 100 Nile canals, 400 bridges, 500 km of telegraph line and others. There was also important urban modernization in postal services, education, government and army.

These however and the Suez Canal inauguration costs, as well as many excesses by the Khedive, including the Ethiopian expedition, resulted in Egypt having debts in 1875 of about £ 100 million.

The November 1875 Ismail sold his shares for £ 4 million to England, following the Disraeli intervention and Rothchild loan. This however was not sufficient for the “*Caisse de la Dette*”, which initially forced Ismail in 1878 to pass his own land property to the state and followed by Sultan Abdul Hamid's, banishment of Ismail in June 1879, and replacement by his son Tewfik, the following revolution of Arabi Pacha, battle Mers el Kebir in 1882 and British occupation of Egypt.

### **7. 1888 Convention of Constantinople. World Wars 1 and 2**

The Convention of Constantinople in 1888 defined the Canal as a neutral zone, under the protection of Great Britain and open to ships of commerce or of war, without distinction of nationality.

In 1905 with the war against Japan, the Russian fleet crossed the Canal on the Far East. The 1935 war and conquest of Ethiopia by Italy used the passage of the Canal for warships and other for military transportation and military equipment.

In World War 1, the Ottomans were allies of the Germans. The Kaizer always had aspirations to the Middle East and Arabia. His project of a railway line Berlin - Constantinople – Baghdad is well known. Their campaign to Suez and Egypt in 1915 however failed while Lawrence and the Arabs took Akaba and then Damascus with Allenby in 1917.

In World War 2 Rommel, in end 1942, was stopped at El Alamein.

## **8. Nasser, Nationalisation, Compensation**

The fall of Farouk in June 1952 was followed by the Republic in March 1954 led by Naguib and later Nasser.

The refusal to finance the Aswan dam by the West led to nationalization of the Canal in 1956.

This was followed by the withdrawal of the pilots in September 1956, invasion by Great Britain, France, Israel in October 1956, the blocking of the Canal, the armistice, restoration of Egyptian sovereignty in December 1956 and finally clearance of the Canal and traffic restart in April 1957. With the subsequent Israel wars the Canal was closed again on 6 May 1967 and reopened on 10 June 1975.

In July 1958, Egypt paid out to shareholders of Compagnie in full compensation £ 29 million. The Compagnie pursued its management of its assets as Compagnie Financiere de Suez. The concession for the operation Canal was for 99 years from opening, ie. until the end of 1968. The nationalisation, in 1956, was 12 years early.

Earnings of Compagnie for 1955 were a total of £ 11 million, ie. £ 4.5 for the Great Britain shares. Through the years its profits were significant. In early years loans and bonds were repaid, operation and maintenance remained in low figures, taxes to Egypt very few and extensions also few: Year / feet draft / tons dwt:

1869 / 22 / 7,000 -- 1908 / 28 / 14,000 -- 1935 / 33 / 28,000 -- 1954 / 35 / 32,000.

## **9. The New Suez Canal**

On 6 August 2015 the President of Egypt Al-Sisi, inaugurated the extension of the Suez Canal in the presence of many heads of state and other officials. He sailed on the famous yacht Mahroussa, the same as Khedive Ismail did in 1869, now more than 150 years old since construction in 1865. Originally built in England by Samuda, with reciprocating steam engines and paddle wheels by Galloway, she was later lengthened and modified, fitted with turbines and propellers by Parsons in 1905 and again later by Ansaldo in 1949. The objective of the Suez Canal extension is to increase traffic and revenue and create an industrial centre in the area around the Canal.

The New Suez Canal includes a new passage of 72 kilometres, parallel to the existing canal between Balah and the South Bitter Lake, which allows ships to move from the Mediterranean to the Red Sea, in both directions and at the same time. It also includes the deepening and widening of the old canal. The new project was completed with approximately 45,000 workers in just one year at a cost of \$ 8 billion US dollars.

The traffic previously with two convoys to the south and one to the north and with the use of large by-passes in Ballah and the Great Bitter Lake and three small by - passes in Port Said, Timsah, Deversoir, gave an average crossing time of approximately 16 hours.

The new dual traffic will decrease crossing time to about 10 hours, with virtually no waiting time and increasing thus the possible number of ships from 50 to 100 day. In 1870 passages were 486 ships, average 2 / day and time 48-65 hours. In 1900 there were 3441 ships 9 / day and 18-32 hours. In 1930 5761 ships, in 1955 14666 ships, in 1982 22545 ships, in 2010 17993 ships in 2015 17483 ships.

Sufficient demand is expected from shipping to achieve the marketing goal to double traffic and reach a revenue of \$ 13 billion US dollars / year in 2023 instead of \$ 5.2 billion in 2015.

## **10. Operations**

When the Canal opened in 1868 it had a length of 164 km and a depth of 8 m (26 ft). After various magnifications it reached length 193 km and a depth of 24 m.

Originally possible ship drafts were 6.76 m (22.2 ft) ie 7,000 tons dwt loaded.

Subsequent extensions were frequent and larger :

1961 -- 37 ft -- 45,000 dwt	1964 -- 38 ft -- 65,000 dwt
1980 -- 53 ft -- 150,000 dwt	2015 -- 66 ft -- 240,000 dwt

The extensions of the Canal evolved along with the rapid increase of sizes and numbers of ships after World War 2 and the great growth of traffic.

Around 2010, the ship numbers were about 18,000 per year, almost 50 per day, with a similar income from tolls (loaded / empty in approximate \$ US Dollars):

Container --	4000 teu	50,000 dwt	-	(\$200,000 / 150,000)
Bulker / Tanker		75,000 dwt		(\$250,000 / 200,000)
Bulker / Tanker		180,000 dwt		(\$350,000 / 300,000)

In 2010 passage of ships with a draft of 20.12 m (66) ie 240,000 tonnes dwt loaded with height up to 68 meters of water surface and a maximum width of 77.5 m was possible. This restricts the passage of VLOC (Very Large Ore Carriers) and VLCC (Very Large Crude Carriers) of over 240,000 dwt fully laden and all ULCC (Ultra Large Crude Carriers) of 320,000 or more.

But many of these larger tankers can transfer additional cargo into barges from the port of Suez for reloading in Port Saïd or through the Sumed pipeline from Ain Sukhna on the Red Sea to reloading near Alexandria, in Sidi Kerir on the Mediterranean.

This New Canal allows passage of the largest military, passenger, cruise and container ships. All these have a relatively small draft, which is the limiting dimension of the Canal, but other dimensions within the limits (Length / Width / Draught - meters)

<input type="checkbox"/> Aircraft Carrier :	Harry Truman (333 / 40.8 / 12.5)
<input type="checkbox"/> Cruise:	Allure of Seas (362/47 / 9.3)
<input type="checkbox"/> Containers:	MMK Moller (400/59 / 15.5)



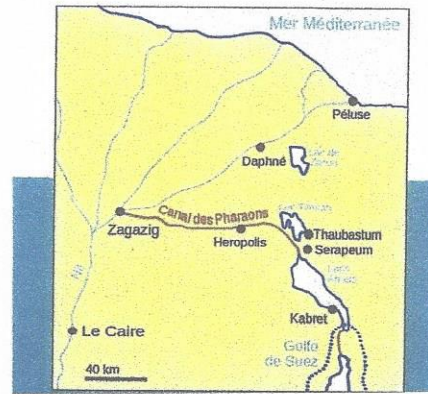
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## SUEZ 1860-2015

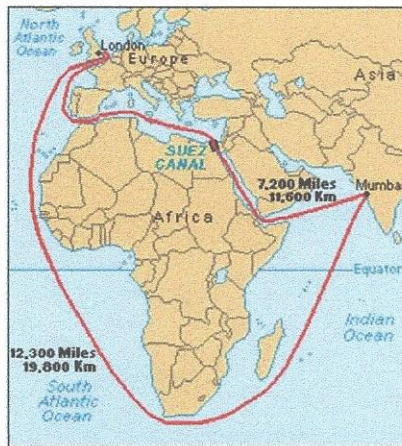
Speaker

Mr. Dimitri Capaitzis

Old Parliament, Athens, 22/11/2016



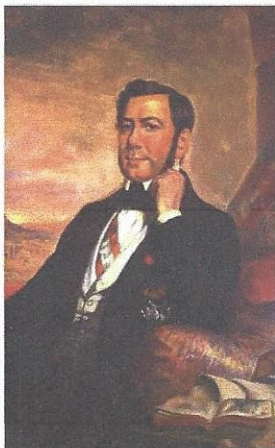
## 65) Ancient Egypt 1.1



## 38) Africa – Suez 1.5



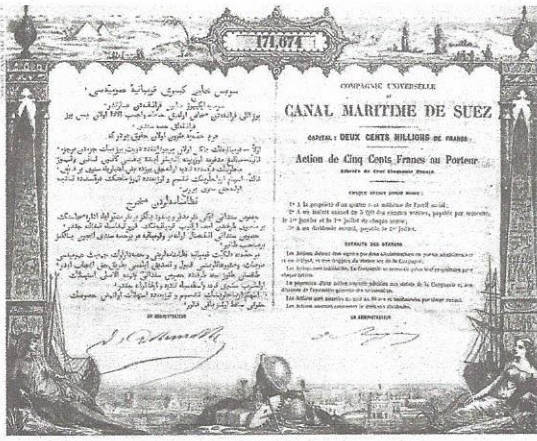
## 47) Said Pasha 2.1



## 05) De Lesseps 2.2



## 21) Suez Share 2.3



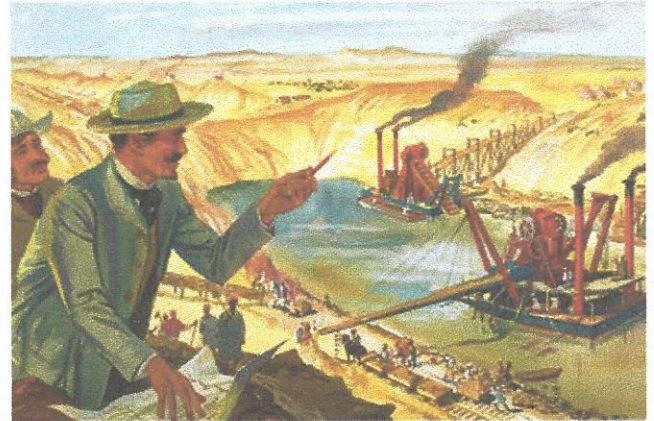
64) Suez Share 2.4



66) Khedive Ismail 3.1



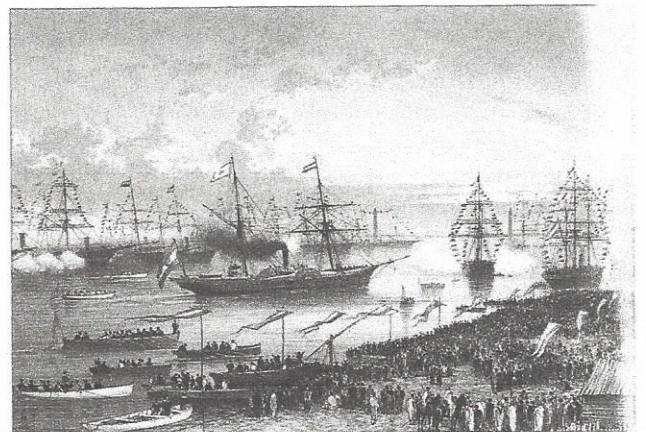
04) Lesseps Family 3.2



20) Canal Building 4.1

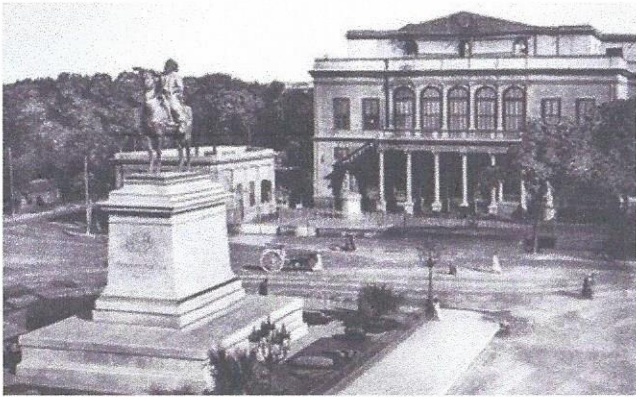


26) De Lesseps 4.4

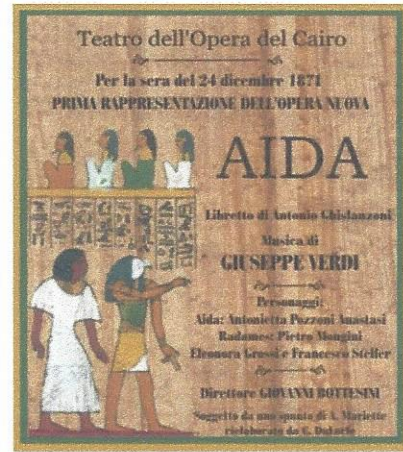


14) Francois-Joseph yacht 5.2

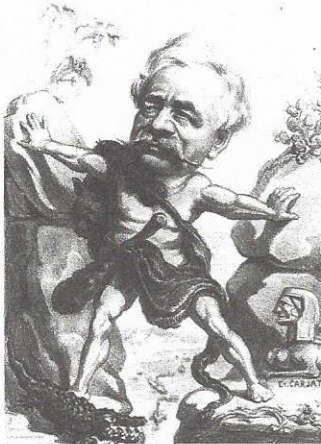




35) Cairo Opera – Ibrahim 5.4



19) Aida 5.5



06) De Lesseps 5.7

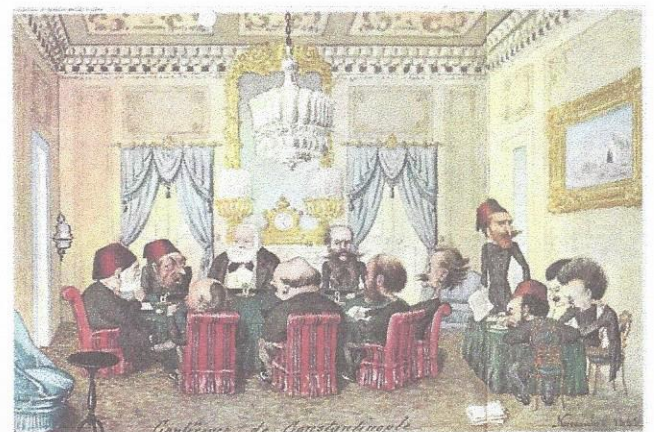


44) Disraeli 6.1

TABLEAU DU TRANSIT ET DE RÉSULTATS FINANCIERS DU CANAL DE SUEZ DE 1870 A 1900

ANNÉES	TONNAGE		SOMME des passagers	Moyen dans le canal	RECETTES		DÉPENSES		REVENU des actions (intérêts et dividendes)
	brut	net			du transit	diverses	Exploitation et entretien	Travaux d'amélioration	
1870	486	551,911	426,400	26,728	48 000	5,718,757	3,255,572	5,321,300	3,290,170
1871	768	1,142,201	761,491	45,122	40 28	9,200,438	4,022,017	5,000,213	3,162,501
1872	1,682	1,744,481	1,435,193	97,610	42 31	19,202,891	1,722,225	1,835,815	126,490
1873	1,172	2,055,073	2,055,073	65,659	42 21	29,199,992	1,931,121	2,017,012	729,416
1874	1,524	2,423,672	1,515,570	73,587	41 15	33,169,950	1,916,855	6,252,371	1,023,241
1875	1,191	2,040,706	2,009,291	81,116	39 41	27,197,778	1,200,250	9,201,411	226,162
1876	1,497	2,472,107	2,408,772	71,819	39 41	29,121,773	1,819,890	5,027,112	618,177
1877	1,663	3,418,530	2,855,442	72,825	39 11	32,852,510	1,022,188	5,802,269	970,711
1878	1,308	2,291,323	2,291,323	59,293	37 03	31,202,817	1,003,893	5,229,422	923,071
1879	1,477	2,229,242	2,229,242	81,812	36 36	23,276,801	1,072,782	4,879,340	870,251
1880	2,026	2,211,520	2,057,422	101,251	35 05	29,592,571	1,208,368	5,172,451	1,116,797
1881	2,727	2,721,401	1,128,780	90,521	45 53	51,737,718	2,938,471	5,317,217	621,357
1882	2,195	7,122,129	5,671,460	151,868	35 15	61,074,515	2,294,065	6,635,006	1,451,333
1883	2,307	8,051,907	2,729,862	119,177	48 35	69,127,615	2,385,780	7,215,330	4,113,359
1884	2,524	8,219,967	5,571,501	121,919	41 56	61,635,901	2,789,531	6,619,376	2,780,816
1885	3,234	8,255,415	6,285,724	135,521	41 56	62,474,401	2,757,454	7,191,470	2,759,405
1886	3,190	8,185,318	5,767,636	171,411	36 11	56,708,252	2,221,311	6,626,950	10,115,011
1887	3,127	8,229,045	5,919,224	182,597	31 05	56,195,225	2,284,584	6,269,341	18,328,786
1888	3,440	9,457,937	6,410,821	183,895	30 45	63,242,637	2,162,727	7,131,230	18,074,888
1889	3,425	9,466,741	6,783,187	180,211	29 14	66,592,199	1,713,969	9,175,831	9,202,632
1890	3,265	9,248,129	6,590,694	191,333	21 04	67,425,278	3,633,622	8,931,310	10,526,459
1891	4,207	12,217,969	8,428,777	191,467	22 31	65,916,291	2,921,559	9,172,837	9,782,496
1892	4,266	10,206,491	7,118,629	185,302	21 16	71,228,561	2,921,730	3,433,310	11,072,817
1893	3,211	10,253,735	6,659,090	186,425	20 45	71,112,182	5,167,810	8,292,625	6,577,416
1894	3,022	11,282,825	8,008,123	205,003	19 23	74,127,026	2,824,023	8,182,181	9,785,187
1895	3,434	11,633,637	8,345,333	216,338	19 18	78,126,116	2,276,677	9,426,377	3,097,187
1896	3,405	12,397,599	8,008,123	205,003	19 23	74,127,026	2,824,023	8,182,181	9,785,187
1897	2,856	11,123,400	7,899,477	191,315	17 11	72,214,226	2,262,869	6,222,226	3,191,197
1898	3,204	12,162,622	8,228,639	219,551	18 02	85,329,657	2,576,691	11,104,717	3,862,865
1899	2,907	13,812,029	8,841,436	231,232	18 20	91,261,295	2,566,391	12,127,420	2,523,374
1900	3,441	13,602,228	9,728,152	232,511	18 32	90,707,007	2,741,396	12,929,621	2,295,028

67) Accounts 1870-1900 6.2



13) 1885 Constantinople Congress 7.1



28) Company Offices P.Said 8.1



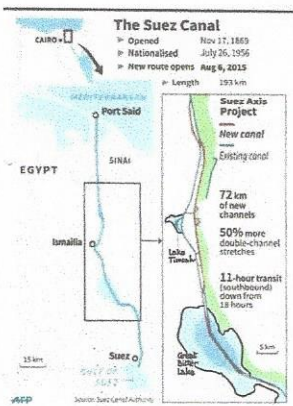
74) Mahroussa 8.2



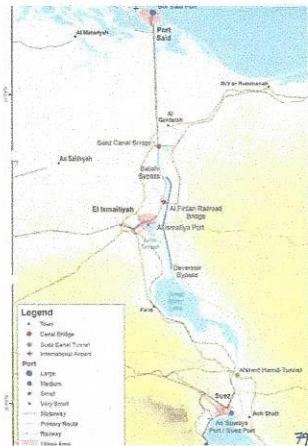
01) New Canal 9.1



33) Shohada Bridge 9.2

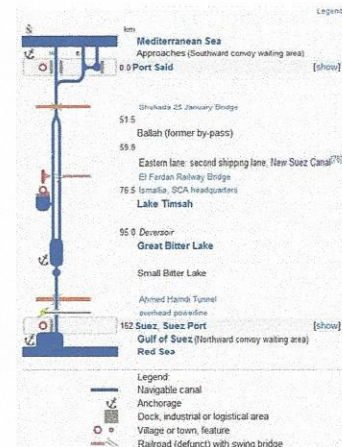


map A



map B

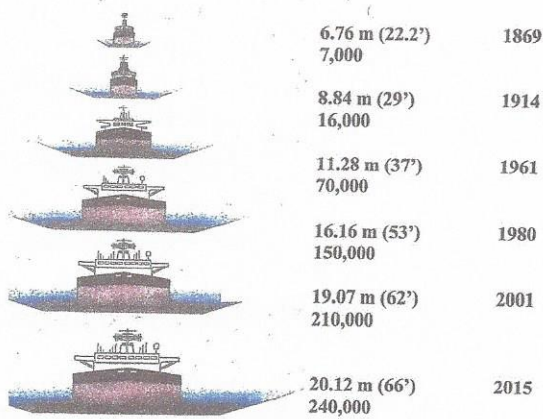
78,79 New Suez Canal 9.3



10) New Canal 9.5

Year	m / Draft	/ ft	DWT
1869	6.76	22.2	7,000
1900	7.80	25.6	10,000
1914	8.84	29	16,000
1935	10.06	32	28,000
1954	10.67	35	32,000
1964	11.58	38	65,000
1980	16.16	53	150,000
1994	17.07	56	170,000
1996	17.68	58	185,000
2001	18.90	62	210,000
2010	20.12	66	240,000
2015	20.12	66	240,000

### 59) Drafts 10.3

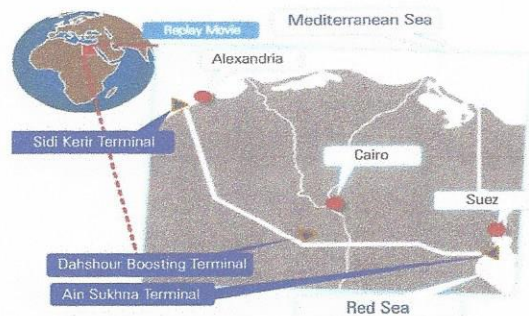


### 60) Year, DWT, Draft 10.5a

### SUEZ CANAL Tolls ~ 2010 ~ \$

TYPE	DWT	Loaded	Ballast	Notes
Container	50,000	200,000	150,000	4000 teu
Bulk Carrier	180,000	350,000	300,000	
Bulk Carrier	75,000	250,000	200,000	
Tanker	160,000	350,000	300,000	
Tanker	70,000	250,000	200,000	
LNG	85,000	420,000	370,000	

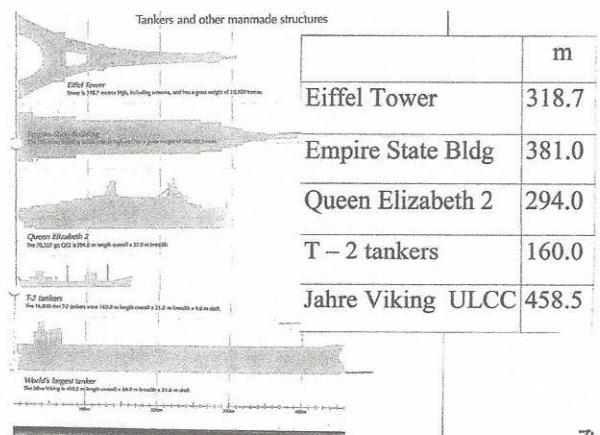
### 57) Tolls 10.4



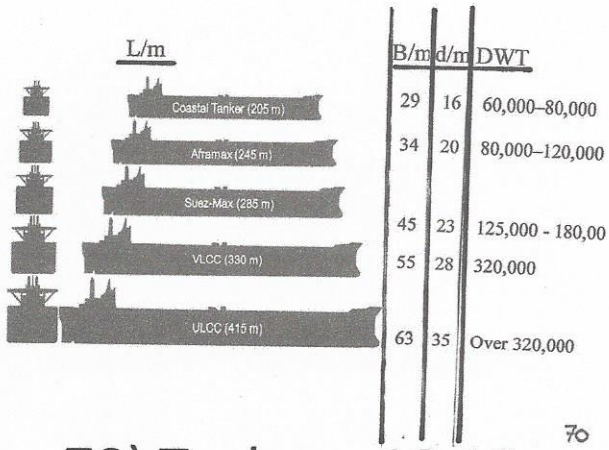
### 63) Sumed Pipeline 10.5b



### 42) Container Ship 10.8



### 71) Eiffel, Empire state, QE2, T2, Jehra 10.9



70) Tankers 10.10



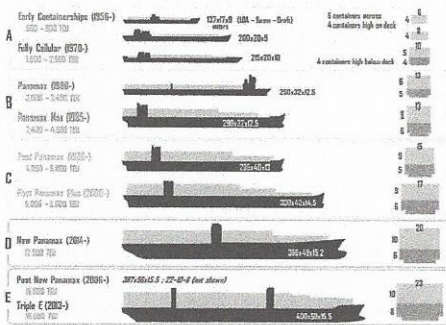
50) TI Asia - Eagle Otome 10.11



52) TI Europe 10.13



46) Aircraft Carrier 10.15



72) Container Sizes 10.16



81) Allure of the Seas 10.17

