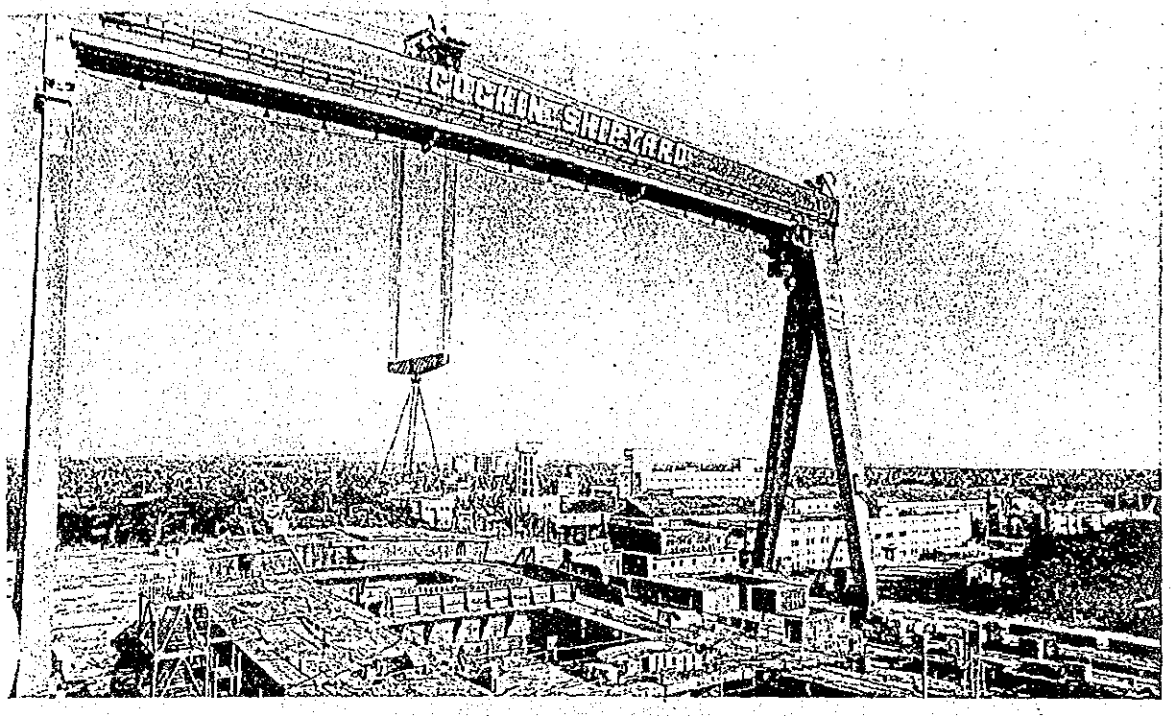
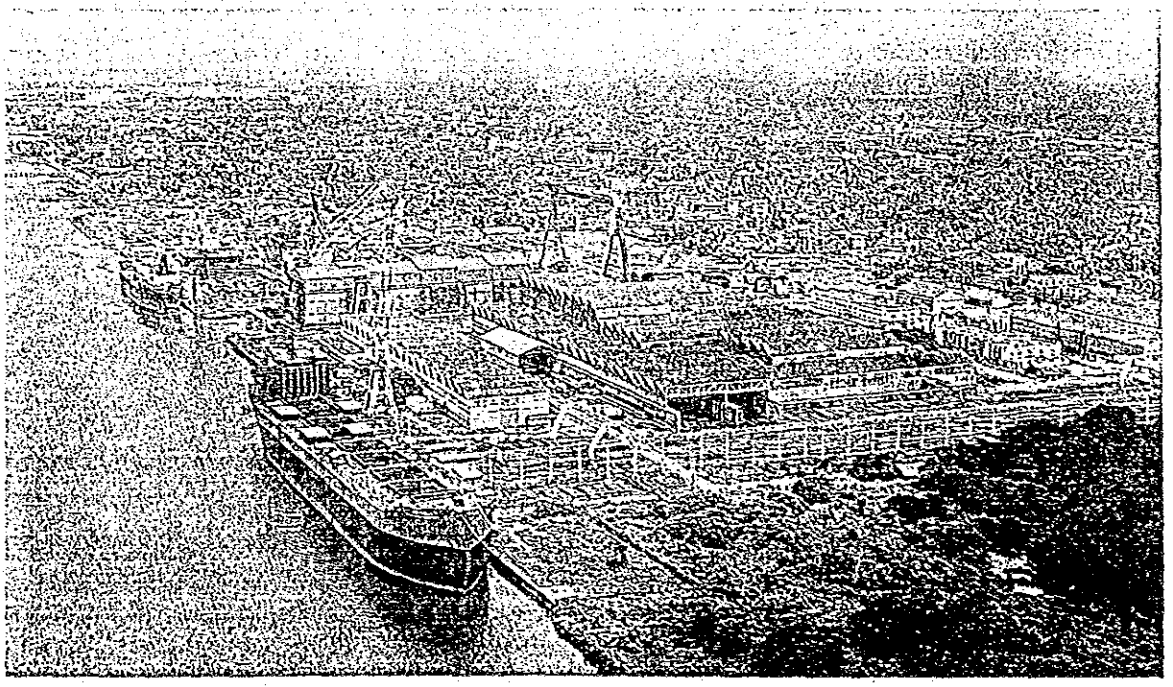
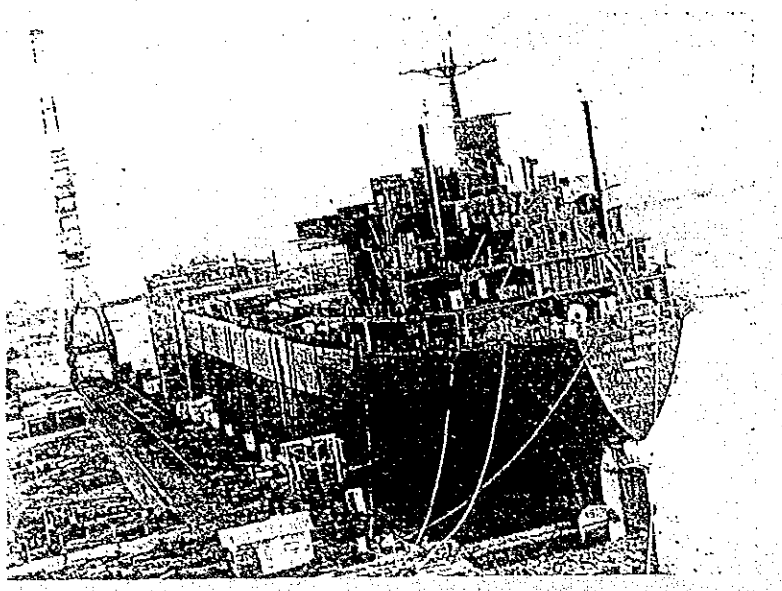
THE LEADER

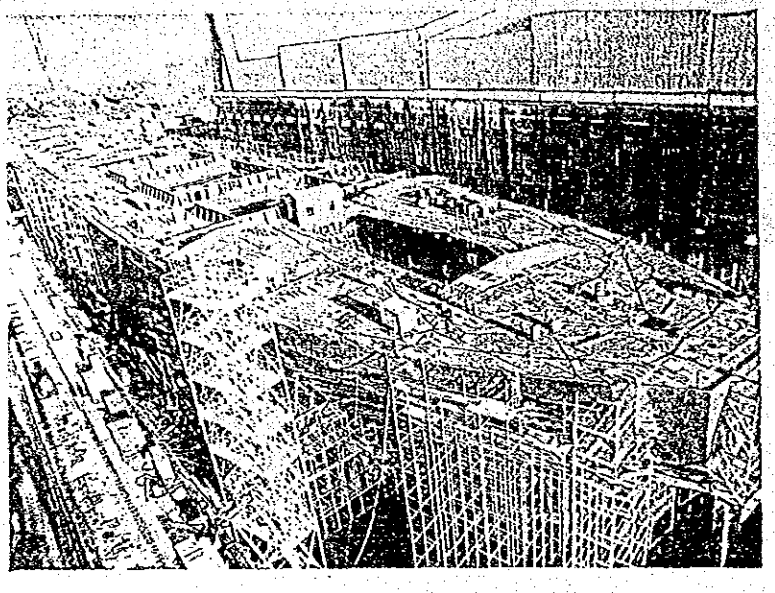


COCHIN SHIPYARD



In India, the largest.
In the world, among the most modern.





The start

Established in 1972, the Cochin Shipyard undertook shipbuilding from 1975, years before the completion of the project in 1982. From then on there's never been any looking back. Through the cumulative and concerted efforts of a goal-oriented management and a highly-motivated work force, today the Cochin Shipyard offers ultra-modern shipbuilding and repair facilities which stand among the best in the world. This has invested the shipyard with the required infrastructure and technology for undertaking mammoth projects like off-shore constructions. For example: oil rigs and platforms.

From inception the shipyard has given technology top priority. The first vessel was completed and delivered in 1981. Since then its achievements have been impressive. With its collective human resources, the yard has today become the largest and most modern shipyard in the country, with a rated capacity of 1,50,000, DWT in ship building and 1 million GRT in ship repair. The project outlay is Rs. 132 crores.

The Yard

This was set up with the technical collaboration of M/s Mitsubishi Heavy Industries, Japan. The Building Dock in the yard measures 255M × 42.8M × 9M viz. over a ¼ km long. The crane capacity here is 150T. And

the yard's dimensions provide for building vessels upto 86,000 DWT.

The shipbuilding complex of the yard is planned for a steel throughput of 25,000 T per annum.

The yard is equipped with computer facilities, modern production and fitting out facilities, ample cranage, a long quay with a deep water front and, cost-effective technology – all the necessary ingredients to make it the biggest and best in India for shipbuilding and repair work.

Major turnouts

The keel of the first vessel – a Panamax Bulk Carrier of 75,000 DWT – was laid on February 11, 1976 by the late Prime Minister Smt Indira Gandhi.

The first ship – MV RANI PADMINI was delivered in July '81. It was built on the basic design of the yard's technical consultants at that time, M/s Scott Lithgow Ltd., Port Glasgow U.K.

This is the single largest industrial product made in India.

To date the Cochin Shipyard has successfully delivered ~~three~~ five 75,000 DWT Panamax Bulk Carriers. All these vessels have won all-round acclaim in

shipping circles, for quality and workmanship. There are right now two similar vessels being built at the Building Dock and at the outfitting quay.

Construction of 86,000 DWT oil tankers is shortly to be taken up. The Cochin Shipyard will be India's first to undertake construction of oil tankers.

The yard is poised to diversify into manufacture of structures both onshore and offshore.

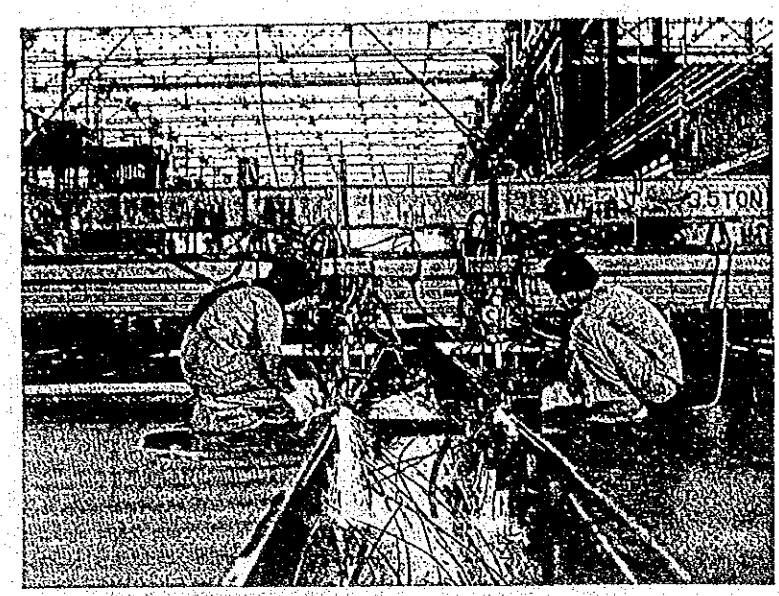
Facilities

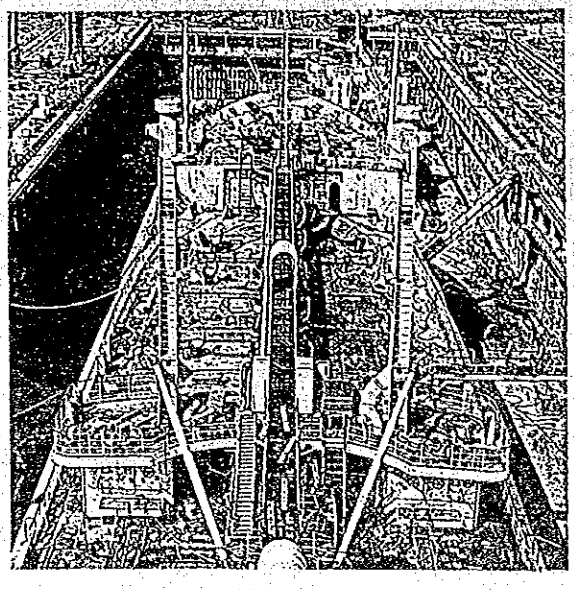
Ultra modern hull shop: Cranes upto 50 T capacity; Mangling machine; Shot-blasting and Automatic Painting machines; Presses upto 1200 T capacity; Beam bender; Frame bender.

Welding equipment: One of the finest in the country: one side automatic welding (FCB and FAB); Electrogas and Electroslag automatic welding; CO_2 welding; TIG welding; submerged arc welding; gravity welding; and auto contact welding. Plus contemporary profile and cutting machines, flame gas burning machines.

State-of-the-art techniques: In-line and spot heating for forming of shapes and removal of weld distortion.

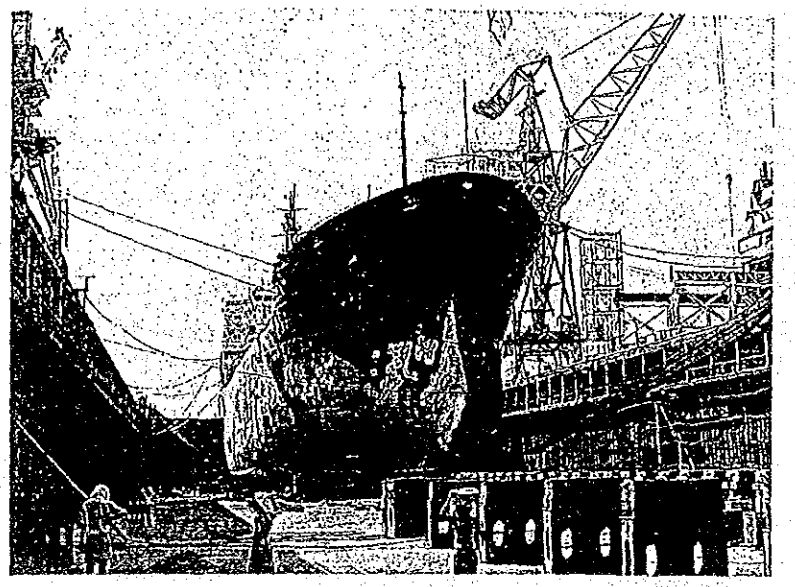
Pipe shop with contemporary facilities: Pipe bending machines upto 150 mm capacity, pipe cutting equipment, pipe edge working machine, pipe threading machine, pipe joining machine, turning roller.

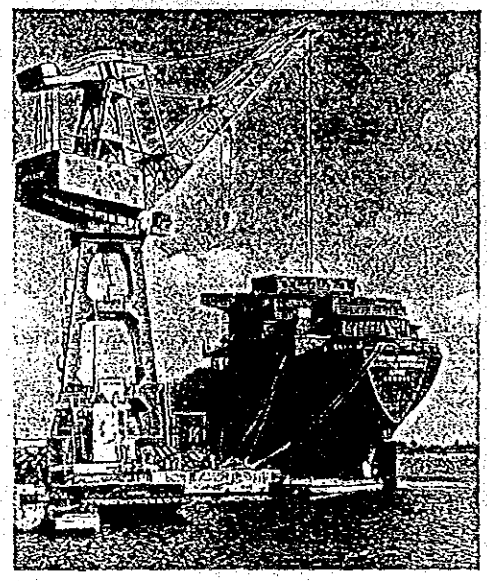




Sheet metal shop: with Brake press, Square shear, Plate Bending Roller.

Assembly shops: with telescopic sliding roof served by 20T overhead crane. 150T Gantry crane spanning Building Dock and Assembly shop in addition to 50T LLTT crane.





Ship repair

The ship repair complex is very well equipped with modern facilities and offers comprehensive ship repair facilities of all kinds. Consultancy from ISHIKAWAJIMA HARIMA HEAVY INDUSTRIES (IHI) Japan has been obtained to update techniques and skills in this area. Located near Cochin Port the yard can be accessed through-out the year by all vessels.

The Dry Dock, 270M × 44.8M × 12M, is capable of taking ships upto 1,15,000 DWT for repairs. Cranage at the dock consists of 10T, 5T and 40T LLTT cranes. On either side of the Dock, quays of length of 208M × 100M with crane and power facilities are available for berthing of ships coming for repairs. In fact the repair yard attracts sea-going vessels from all over Asia and the South Pacific region.

Round the clock service

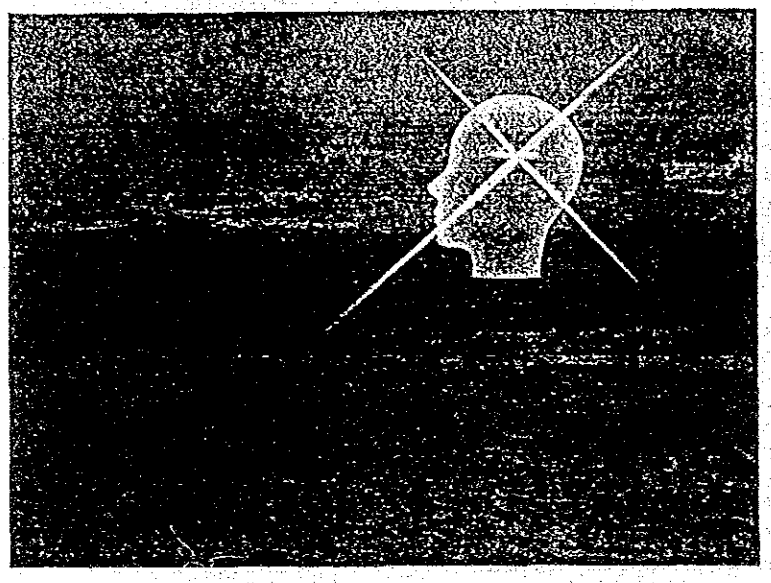
Highly-qualified and well experienced engineers are available round the clock to attend to repair requirements. A very well equipped laboratory with modern testing equipment for mechanical, chemical and non-destructive testing is available, ready to serve, round the clock.

Facilities at Repair Dry Dock

- High capacity discharge pumps to drain the Dock in three hours
- Automatic Bilge Blocks for quick docking
- Travelling stages for easy access to hull surface
- High pressure water jet cleaning
- Hauling carriages for safe docking and un-docking
- D.C. and A.C. Power supply 50 cycles as well as 60 cycles
- Compressed air, oxygen, acetylene
- Fresh water and sea water
- Very well equipped workshops are available for undertaking major repairs. Besides, all the shops for shipbuilding also have capacity for repair works. The hull shop is very well fitted for taking up major steel work for conversions, modifications and damage repairs.

Human Resources

Around 300 young, well-trained officers constitute the highly-qualified managerial team. Experts in naval architecture, marine design and engineering and in allied and supportive fields, these officers give a dynamic leadership to the total operations.



Nearly 3000 dedicated and committed workmen and supervisors make up the yard's work force. Each member undergoes a minimum training of two years in the yard itself after a highly selective recruitment process.

Plans ahead

The yard has many plans on the anvil. Among them are the expansion of its activities into more complex offshore structures and heavy structural work.

Immediate possibilities are fabrication of deck structures, accommodation modules and other modules for offshore platforms and, land-based structural fabrication work, requiring just the existing facilities in the yard.

Subsequently the yard intends to take up the construction of all types of offshore structures, namely jackets, jackups and so on.

Presently, out of the total available area of 68 hectares only 37 is being utilised, leaving the remaining 31 hectares for future expansion.

COCHIN SHIPYARD LIMITED
(A GOVERNMENT OF INDIA UNDERTAKING)
P.O. BAG NO. 1653
COCHIN – 682 015
Telephone : 351181/366340
Grams : 'SHIPYARD'
ERNAKULAM
Telex : 885 360 CSL IN

شركة ترسانة الاسكندرية

ALEXANDRIA SHIPYARD

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Gate No. 36 Kabbary ALEXANDRIA, EGYPT Telex: 54069 alxard un - Cable ALEXYARD
TEL: 33090 . 35090 . 34420

ALEXANDRIA SHIPYARD

FACILITIES & ACTIVITIES
1962 — 1982

ALEXANDRIA SHIPYARD

Cable : ALEXYARD
Telex : 54069 ALXARD UN
Phone : 33090, 34420, 35090

Gate N°A 36, Kabbary,
ALEXANDRIA,
EGYPT.

ALEXANDRIA SHIPYARD

It is one of the significant modern shipbuilding and ship repair complexes in the Mediterranean.

LOCATION OF THE YARD

It is geographically situated in the heart of the worlds sea born traffic to and from far East. The yard is located in the south of the mediterranean in the sheltered anchorage of the western Harbour of the port of Alexandria. It is in a position to render any required service to all ships entering the port of Alexandria.

The total yard area is about 400,000 m^2 with a total quay length of 1,200 m approx.

HISTORY

1959 By virtue of governmental decree the design of Alexandria shipyard was started.

1962 A contract for the construction of the Shipyard and the supply of the shops equipment was signed and the yard foundation was laid beside the site of Alexandria old repair dock.

1963 A training center was opened, and preparation of shipbuilding personnel was started.

1964 A mechanical slipway with catriage lifting capacity of 600 t was built.

1965 A new repair graving dock with a capacity of 85,000 t went into service and since then Alexandria shipyard has acquired the best docking facilities in south Mediterranean.

1968 Two inclined semisubmerged building berths were completed.

1969 After the Shipyard had been practically completed production started on the main berths.

1970 Launching of the dry cargo vessel "SIDI - BESHER" 6,500 tdw.

1971 Launching of the first ALEXANDRIA CLASS cargo vessel "ALEXANDRIA" 12,880 tdw. Start implementation of payroll, accounting and financial systems on the computer.

1972 Launching of the largest ship ever built in Egypt, the dry cargo vessel "SUEZ" 13,740 tdw.

1973 Launching of the first 500 tdw. replenishment tanker built for the soviet neval forces. Launching of the first RAMSIS CLASS cargo vessel "RAMSIS II" 8,230 tdw.

1976 Assigning IHI for the development of the Shipyard management systems and facilities.

1976 Signing an agreement with B&W assigning A.S. as B&W diesels licend repair center and spare parts dealer.

1977 Installation of two 1/10 th scale flame cutting machines in the prefabrication shop, one of them equipped with numerical control head.
Start cooporation with B & W Shipyard and B & W Ship-building services for the building of three "Modified RAMSIS CLASS" cargo vessels 8,230 tdw under Danish loan.

1978 Installation of a PC-100 Kongsberg computer center for numerical control applications.

1979 Signing a contract for the building of three "Modified HAMLET CLASS" multi-purpose cargo vessels under licence agreement with B&W Shipyard.
Signing a contract for the building of 30 integrated barge units each having a deadweight of 770 tons for the service in the River Nile.

1980 Installation of a new automatic plate shot blasting/priming/drying machine.

1981 Signing an agreement with the Egyptian Iron & Steel company for the transfer and implementation of a computerized "Preventive Maintenance System".
Signing an agreement with BWSS for the development of some of the shipyard operational systems.
Signing a contract for the building of a Jack-up "BMC 200 — IC CLASS" drilling rig for Baker Marine Ferrostaal Joint venture Co.

1982 Signing a subcontracting agreement for the building of some parts of a production platform and accomodation platform.
Siging contracts for the building of three "ALEXMAX CLASS" bulk carriers 38,500 tdw.

SHIPBUILDING

*New Building Facilities

The yard has two building berths. On the berths it is possible to build general cargo vessels up to 20,000 tdw and tankers of bulk carriers up to 38,000 tdw.

* Building Berths characteristics

Berth	Length	Breadth	Cranage
Northern Berth	180.00 m	28.00 m	6 x 30 tons 3 X 90 tons
Southern Berth	180.00 m	28.00 m	

* Mechanical Slipway

Amechanical slipway comprising four ways is available served by a carriage having a lifting capacity of 600 tons affording building facility on two ways for all types of small vessels up to 1,500 tdw.

Way	Max. vessel length	Max. vessel breadth	Cranage
Way (1)	60,00 m	12.00 m	1 x 25 tons
Way (2)	60.00 m	12.00 m	

* New Building Program

The yard's program in shipbuilding is geared towards the building of general cargo vessels up to 14,000 tdw and bulkcarriers up to 38,000 tdw.

In view of the present market situation, the production has been concentrated on the construction of sophisticated dry cargo vessels, small replenishment tankers and river integrated barge units.

* Dry cargo vessels

The Standard types of the shipyard have a deadweight of 13,740 and 8,230 tons, of these vessels 4 and 9 vessels had been built respectively.

* Multi - purpose cargo vessels

The standard type of the shipyard has a deadweight of 12,600 tons of these vessels 3 are on order.

* Small Tankers

The smallest standard type of the shipyard is the 500 tdw. replenishment tanker, 16 of this type had been built.

12880 tdw "ALEXANDRIA CLASS" General cargo vessel

Ship's designation is to carry general cargoes, industrial equipment and grain.

The ship is single screw, full scantling, double decker, having five holds, extended forecastle, raked stem and cruiser stern.

Cruising area is unlimited including tropical latitudes and navigation in broken ice.

Main Pariticulars

Length between perpendiculars	140.00 m
Breadth moulded	20.60 m
Depth moulded to upper deck	12.00 m
Draft (summer freeboard)	9.37 m
Deadweight (standard version)	12880.00 t
Deadweight (modified version)	13740.00 t
Speed on trials	17.70 k nots
Class	L.R.,+ 100Al, + LMC, ICE CLASS (3)

Main Machinery

Single slow speed B&W Diesel engine having an output of 9000 BHP at 110 r.p.m.

Production programme

Of this type one vessel had been built for the Egyptian Navigation Company.

Vessel's Name	Yard No.
"ALEXANDRIA"	10002

of the "MODIFIED ALEXANDRIA CLASS" Another 3 vessels had been built for sudo/Import (U.S.S.R.)

Vessel's Name	Yard No.
"SUEZ"	10003
"ISMAILIA"	10004
"PORT - SAID"	10005

500 tdw "NAVY CLASS" Replenishment Tanker

Ships designation is to carry liquid cargoes for replenishment purposes.

The ship is single screw, full scantling having 3 tanks, raked stem, criuser stern and nozzle propeller.

Main Particulers

Length between perpendiculars	49.40 m
Breadth moulded	9.40 m
Depth moulded to upper deck	4.20 m
Draft (design)	3.10 m
Deadweight (max)	500.00 t
Speed on trials	10.00 knots

Main Machinery

Single RUSKY Diesel type 6 DR 30/50-5-2 delivering 600 BHP at 300 r.p.m.

Production Program

Of this type 16 vessels had ben built.

Number	Type	Owner
Four	Mazot tankers	Soviet naval forces
Five	Water tankers	" " "
Two	Mazot tankers	Egyptian naval forces
Five	Water tankers	" " "

8230 tdw. "RAMSIS CLASS" Cargo Liner

Ship's designation is to carry general cargo and industrial equipment and occasional carriage of timber in the holds and on deck.

The ship is single screw, double decker, five holds, with a minimum freeboard, forecastle, extended poop, a raked stem with a bulb, cruiser stern and nozzle propeller.

Cruising area is unlimited and includes sailing in tropical latitudes and navigation in broken ice.

Main Particulars

Length between perpenaiculars	121.00 m
Breadth moulded	17.80 m
Depth moulded to upper deck	9.80 m
Draft (summer freeboard)	7.80 m
Deadweight (max)	8230.00 t
Speed on trials	17.50 knots
Class	L.R., + 100A1,+ LMC, ICE CLASS (3)

Main Machinery

Single slow speed B&W diesel engine with service output power of 4900 BHP at 170 r.p.m.

Production Program

Of this type 6 vessels of the "RAMSIS CLASS" version had been built for the Egyptian Navigation Company.

Vessels Name	Yard No.
1) RAMSIS II	10011
2) ISIS	10012
3) NEFERTITI	10013
4) AMON	10014
5) MEMPHIS	10015
6) AHMOS	10016

Another 3 vessels of the MODIFIED RAMSIS CLASS" Version had been built for the Egyptian Navigation Company.

Vessels Name	Yard No.
7) IKHNATON	10017
8) THUTMOS	10018
9) 15 MAY	10019

12600 tdw "MODIFIED HAMLET CLASS" Cargo Vessel

The HAMLET CLASS vessel is a multi-purpose ro-ro dry cargo ship. The ship's designation is to carry containers, roll-on/roll-off cargo, general cargo and bulk cargo.

The ship is single screw, full scantling, double decker having three holds, extended forcastle deck to aft of hold No. 2, raked stem and bulbous bow, transom stern and balanced rudder of spade type, ro-ro access to tweendeck by hinged quarter ramp starboard side aft.

Cruising area is unlimited including tropical latitudes and navigation in broken ice.

Main Particulars

Length between perpendiculars	122.30 m
Breadth moulded	20.50 m
Depth moulded to upper deck	12.20 m
Scantling draft	9.40 m
Deadweight (max)	12600.00 t
Container capacity (20 units)	374 TEU
Trailer lane length	486.00 m
Speed on trials	14.80 Knots
Class	L.R.,+ 100A1, + LMC, ICE (3), H.C.

Main Machinery

Single slow speed B&W diesel engine 5L55GF Delivering 6700 BHB at 150 rpm.

Production Program

Of this type 3 vessels are on order for the Egyptian Navigation Company.

Vessel's Name	Yard No.
"ABU RDEES"	10024
"ABU ZNIMA"	10025
"ABU EGILA"	10026

38500 tdw "ALEXMAX CLASS" Bulk carrier

The ship's designation is to carry all kinds of grain, heavy ores and 20' containers.

The vessel is single screw diesel driven, full scantling having five self trimming holds, top side tanks for water ballast only, flush upper deck with sheer forward, engine room and accommodation aft, raked stem with bulbous bow and transom stern and balanced rudder of spade type.

Holds number 1,3 and 5 strengthened for the carriage of heavy ores.

Cruising area is unlimited including tropical latitudes and navigation in broken ice.

Main Particulars

L.o.A = 200.0 M

Length between perpendiculars	190.00 m
Breadth moulded	26.50 m
Depth moulded	15.80 m
Scantling draft	11.38 m
Deadweight at scantling draft	38,500.00 t
Design draft	10.36 m
Deadweight at design draft	35,000.00
ISO container capacity (20'units)	640 TEU
Total grain capacity including hatches	51,000.00 m^3
Speed on trials	15.00 Knots
Class	L.R., + 100A1, H.C., ICE (3), + LMC

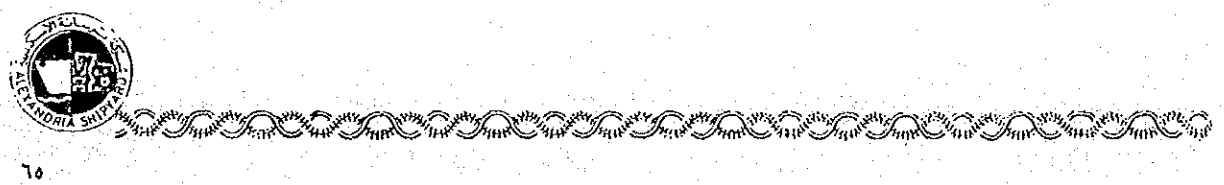
Main Machinery

Single slow speed B&W diesel engine 5L67GFCA delivering 10,900 BHPat 123rpm.

Production Program

Of this type 3 vessels are on order

Owner	Yard No.
Egyptian Navigation Company	10029
Egyptian Navigation Company	10030
National Navigation Company	10031



OFFSHORE INDUSTRY

* New bulding program

The yard program in offshore industry is geared towards the building of jack up drilling rigs and partial building of oil production platforms and accommodation platforms.

* Jack-up drilling rigs

The standard type of the shipyard is the "BMC- 200-IC CLASS" jack up drilling rig designed for service in the Gulf of Suez and the Red Sea.

* Production platforms and accommodation platforms

The yard has signed contracts as subcontractor to "PETROJET" to build parts and sections of one production platform and one accommodation platform.

"BMC - 200 - IC CLASS" Jack-up Drilling Rig

This oil rig is designed for operation in the Gulf of Suez and Red Sea.

It was designed by Baker Marine Engineers (U.S.A.) and owned by a joint venture company "Baker Marine (U.S.A.) Ferrostaal (W. Germany)".

Main Particulars

Length overall	174.25 ft
Breadth overall	162.50 ft
Hull depth	18.00 ft
Draft	12.00 ft
No. of legs	3
Maximum working depth	200.00 ft
Crew	70 P

The rig is equipped with helideck

Production program

This rig has been delivered on 28-12-1982.

SHIP REPAIR

* Repair Facilities

Highly skilled craftsmanship and modern facilities enable the yard to undertake any job, survey work, regular hull and engine servicing, and damage repair.

Facilities exist for complete overhualing and reconditioning for all types of merchant and naval vessels.

* Graving Docks Characteristics

Docking Facilities are afforded for vessels up to 10,000 tdw in the small dock, and for vessels up to 85,000 tdw in the big modern dock.

Dock	length	Breadth	Depth	Cranage
Dock (1)	158.50 m	18.90 m	6.40 m	1 x 16 ton
Dock (2)	267.00 m	39.60 m	9.50 m	1 x 30 ton + 1 x 10 ton

* Mechanical Slipway

The yard's mechanical slipway which is served by a carriage having a lifting capacity of 600 tons affords also repair facility on two ways for all types of small vessels up to 1,500 tdw.

Way	Max. vessel Length	Max. vessel Breadth	Cranage
Way (3)	60.00 m	12.00 m	1 x 25 ton
Way (4)	60.00 m	12.00 m	

* Berthage

The total quay length for vessels undergoing new-building fitting-out and repair is about 1,200 m served by two 30 tons travelling cranes and one 25 tons tower crane.

* Special Ship Repair Facilities

— Shift working is available
— Ship to shore telephone
— Ready attendance of surveyors
— Highly experienced divers & Under water welders
— Ultra-sonic and radiographic testing
— Distilled water supply & electric power supply
— Repairs to electrical and navigational installations
— Crack detecting equipment
— Tank degasification and cleaning
— Sludge tanks, bunker tanks, high pressure hosing
— High pressure water jet cleaning afloat
— Under water hull cleaning afloat
— Licened B&W repair center and spare parts dealer

GENERAL ACTIVITIES

* Building of dry cargo barges

The standard types of the shipyard have a deadwight of 100, 200, 250, 300 and 770 tons.

Type	Deadweight	Number	Area of service
Non propelled	100 tons	32	Harbour
Non propelled	200 tons	26	Harbour
Non propelled	250 tons	23	Harbour
Non propelled	300 tons	10	Harbour
Non propelled	500 tons	8	Harbour
Integrated pushed and pushing units	770 tons	30	River Nile

* Building of Heavy steel structures

The shipyard has acquired good experience in the building of heavy steel structures like:

— Trusses
— Steel warehouses
— Petrolium towers and storage tanks
— Steel bridges
— Caissons

* Engineering works

The available production shops facilities enable the yard to meet the customer's ever changing demands for any metal processing job within the limitations of its shops facilities and the well proven machining.

YARD FACILITIES

* Shop Facilities

— Steel Fabrication and assembly shops

- Automatic blast cleaning/painting/drying of plates and pickling basins for pipes and profiles.
- 1/10 th scale lofting.
- *Automatic 1/10 th scale/N.C.* gas cutting machines for plate thicknesses up to 35 mm.
- Semi-automatic gas cutting machines.
- Guillotine shears for the cutting of plates up to 16 mm in thickness.
- 200t, 400t and 800t shipbuilding presses for plate thickness up to 32 mm.
- Bending rolls for plate widths up to 8 m.
- Automatic and semi-automatic arc welding machines.
- Electroslag and inert gas welding.

— Machine Shop

- Lathes for machining of shafts up to 16 m in length.
- Horizontal boring and gear cutting machines.
- Slotting, planning and drilling machines.
- Dynamic and static balancing.

— *Machine toolshop*

Foundary work and pattern making

The foundary shop is equipped with electric high frequency furnaces for melting ferrous and non-ferrous metals up to one ton.

— Blacksmithing and forging shop

The forging shop is equipped with pneumatic hammers and presses up to 160 tons pressing force.

— Pipe work, coppersmithing and alloy piping shop

The pipe workshop is equipped for the fabrication of all types of pipes, cold and hot bending.

— Galvanizing and electroplating shop.
— Heat treatment shop
— Electrical workshop
— Painting & Insulation shop

— Carpenter's shop

The carpentery and joinery workshop is equipped with wood drying and impregnation units.

* Laboratories

In addition, the shipyard is equipped with its own laboratories for metallurgical and physical testing, spectrographic and radiographic examination of welds, and magnaflux and ultrasonic crack detection.

TRAINING

* Training Center

Alexandria shipyard has a training center adequately equipped to meet the yard need for skilled workers to carry out specialized work in fourteen different activities covering all the demands of the modern shipbuilding and shiprepairing techniques.

The Shipbuilding & Shiprepair personnel at Alexandria Shipyard are well trained and receive refresher training at regular intervals to be capable of producing high quality work.

* Missions

Missions have been arranged and are arranged reged regurlarly to train the technical staff in the leading shipbuilding countries as Denmark, Norway, England, Italy, USSR and Yougoslavia.

- SHIPREPAIR
- SHIPBUILDING
- CONSTRUCTION OF FACTORIES, STEEL WORKS & SPARE PARTS.
- CONSTRUCTION OF DESALINATION PLANTS WITH 500 TONS CAPACITY.
- MANUFACTURE OF WOOD FURNITURE.

WITH THE COMPLIMENTS OF

PUBLIC RELATIONS DEPT.
THE EGYPTIAN SHIPBUILDING & REPAIRS Co.

The Egyptian Shipbuilding and Repairs Company

ALEXANDRIA HARBOUR
FOUNDED 1880

SHIPREPAIR BASES

SHIPBUILDING BASIN

UP TO DATE WORKSHOPS

MODERN EQUIPMENTS

HIGHLY QUALIFIED ENGINEERS & WORKMEN.

P.O. Box: Alexandria, Ras-El-Tin, Egypt.
Telex: 54519 Repco UN Cable: Shiprepco
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The Egyptian Shipbuilding and Repairs Company

ALEXANDRIA HARBOUR

FOUNDED 1880

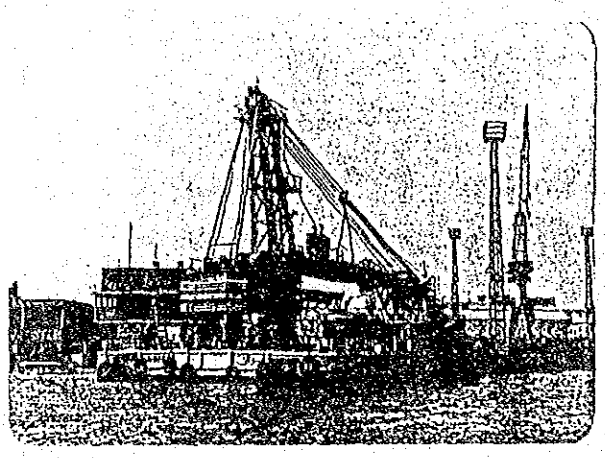
Well - equipped Shiprepair Centre in the

EASTERN MEDITERRANEAN

WORKING AREA 60,000 SQUARE M.

PAYROLL 2,500 PERSONS

WELL - TRAINED WORK TEAM



Repair of All Kinds of Merchant and Naval Vessels.

Conversion of All Kinds of Vessels.

Damage Repair and Engine Servicing.

Building Small Vessels Including Fire and Salvage tug Boats of Bollard Pull up to 35 Tons.

Floating Cranes up to 120 Tons Lifting Capacity.

Fishing Boats, Service Boats, Fresh Water, Fuel Tankers For HarBour Service up to 600 Tons.

River Navigation units, Barges, Ferry Boats and River Busses.

All Types of Industrial Work Including Steel Structure, Spare Parts, ... etc.

Floating Dock With Lifting Capacity 6000 t.

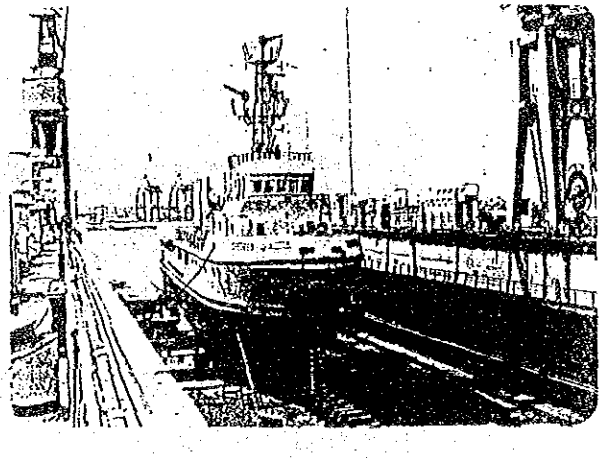
Mechanical Slipway 600 Tons With Fight Building & Repair Berth

Mechanical Slipway 500 Tons.

Floating Cranes Upto 100 Tons.

Equipments For Repairing work Afloat and up to Date Facilities For All Kinds of Steel and Engine Work.

Foundry, Turning, Diesel, Electrical, CarDentry and Outfitting Shops.



(1) FLOATING CRANE UP TO 120 TONS.

(2) SALVAGE, FIRE - FIGHTING TUG BOAT.

P. O Box, Alexandria, Ras - El Tin, Egypt.
Telex : 54717 Repco UN Cable : Shiprepco

ALENTESAR PRESS KOM ELDECKA ALEXANDRIA

THE EGYPTIAN SHIPBUILDING AND REPAIRS COMPANY

6,000-Ton Floating Dock

Type of Dock	box-type dock
Carrying Capacity	6,000 tons
Overall Length	152.00 m
Length over Keel Blocks	144.00 m
Clear Width between Dock Runways	23.00 m
Width between Outer Walls of Wing Walls	29.80 m
Height of Caisson in the Middle of the Dock	2.90 m
Height of Keel Blocks	1.20 m
Immersion Depth above Keel Blocks	6.50 m
Freebord of Upper Decks when the Dock is immersed	1.00 m
Moulded Depth of Upper Deck	11.60 m
Draught of Dock in Working Position	2.55 m
Pumping Time approx.	90 minutes

121 Keel Blocks
24 Bilge Blocks
4 Evacuating Pumps, with a delivery volume of about 2,200 cu.m/h each
2 M.A.N.-Cranes, with 5.0 tons carrying capacity each
Maximum radius of the cranes 16.50 m

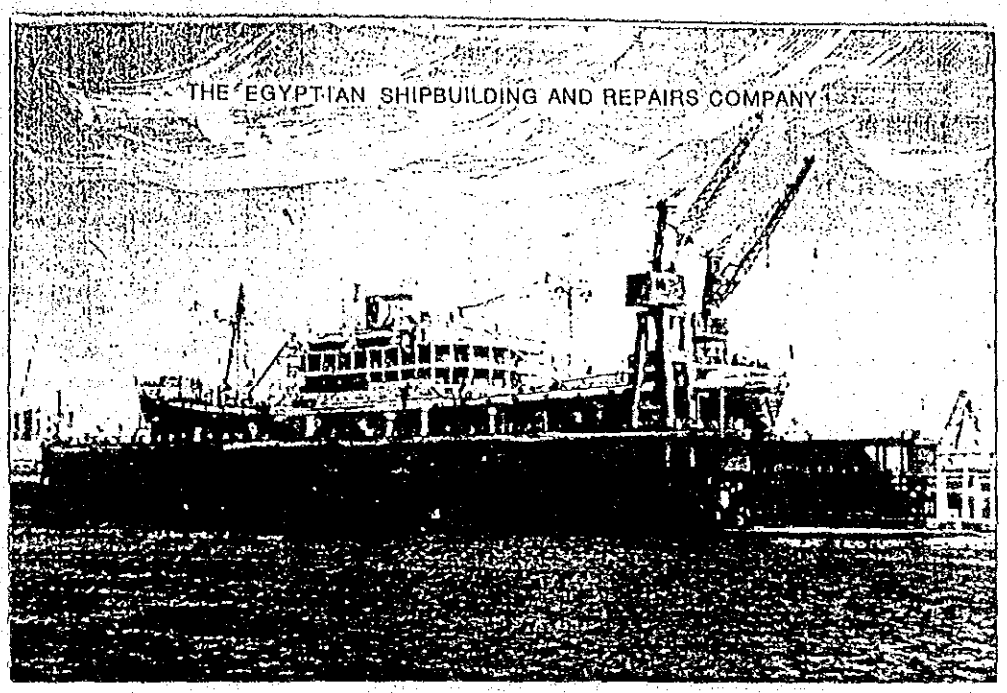
4 Warping Capstans of 1 tons tractive force each

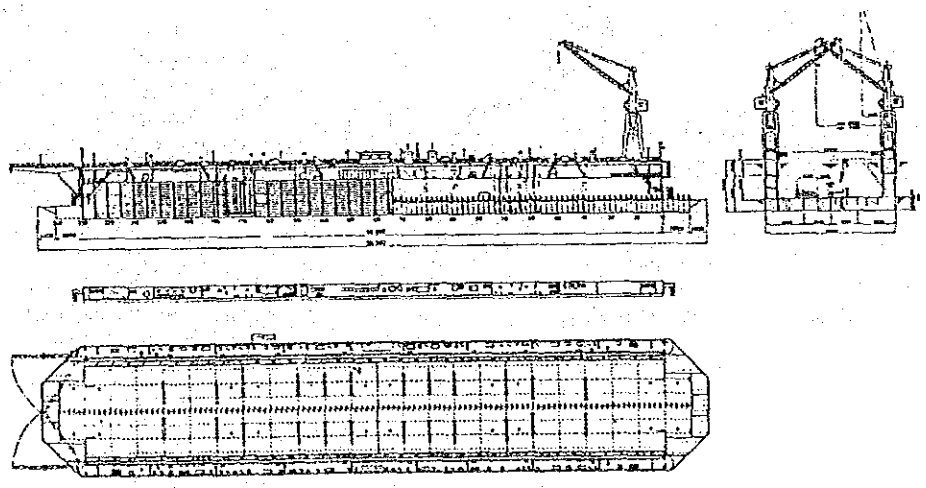
Electrical Power Supply from shore	10.5 KV
rated for a continuous capacity of	1.00 MVA
Nominal voltages available	
Three-Phase A.C. 10,500 V.	50 cycles
Three-Phase A.C. 440 V.	60 cycles
Three-Phase A.C. 400/231 V.	50 cycles
Direct Current 115/230 V.	
Direct Current 24 V.	

Cathodic Protection system is installed
Classification: Lloyd's Register of Shipping class ✠ A
Floating Dock for Service at Alexandria

Keel Laid	March 25th 1975
Launching and Delivery	August 6th 1975

Builder: Gutehoffnungshütte Sterkrade AG
Dockyard Blexen, Federal Republik of Germany


THE EGYPTIAN SHIPBUILDING AND REPAIRS COMPANY



جمهورية مصر العربية

ARAB REPUBLIC OF EGYPT

هيئة قناة السويس

SUEZ CANAL AUTHORITY

SCA

HISTORICAL OUTLINE

Reviewing the history of Ancient Egypt we find that the idea of connecting the Mediterranean and the Red Sea by a direct navigable waterway facilitating trade between the East and West dates back to forty centuries ago, and that Egypt was the first country in the world to create a man-made canal serving trade and connecting the two hemispheres.

The Canal of the Pharaohs

The first Canal connecting the Mediterranean and the Red Sea indirectly via the River Nile and its branches was dug under the reign of Senausret III (1887 - 1849 B.C.). Vessels coming from the Greek Sea (Mediterranean), used to go through the eastern branch (the Pelusiac branch) of the Nile, which had then seven branches, to the town of Bubastis (Zagazig) whence they went through the canal eastward, passing by the town of Thekou (Abou Sweir) to the Bitter Lakes. These Lakes were, at that time, an open gulf connected with the Red Sea.

By 910 B.C., in the reign of Pharaoh Necho II, sand silted in the Canal because it had been long neglected and a bar thus separated the Red Sea from the Bitter Lakes. Necho began to dig the Canal but later abandoned the idea.

The Canal of the Persians

When Darius Hystaspes, King of Persia, ruled Egypt in the year 510 B.C. the Canal was reopened. He succeeded only in connecting the Bitter Lakes with the Red Sea by minor Canals unfit for navigation except during the period of the Nile flood. This Canal was then neglected.

The Canal of the Greeks

Under Ptolemy II (285 B.C.) and Ptolemy III (246 B.C.) the Canal, over its whole length, was once more made fit for navigation and the section between the Bitter

Lakes and the Red Sea was re-dug to replace the minor canals. This Canal was again neglected by time.

The Canal of the Romans

In 98 B.C. the Roman Emperor Trajan ordered a new connection to be dug beginning at Babylon (Old Cairo) and ending at the village known as Abbassa, where it joined the old branch (Bubastis - Bitter Lakes) or (Zagazig - Bitter Lakes). Yet, once more the Canal was not maintained and it was out of use by the end of the third century.

The Canal of the Caliph

Following the Islamic conquest (640 A D) Amro Ibn El Ass had the idea of digging a direct Canal connecting the two seas and crossing the low flat plain extending south of Farma, a town which was situated near the present Port Said.

But Caliph Omar Ibn El Khattab opposed the project for fear of expcsing all Egypt to be flooded by the Red Sea. He then ordered to restore the old Canal of the Romans in order to allow vessels to sail to the Hedjaz (Saudi Arabia), the Yemen and India. This Canal was called the Canal of the Caliph and was used for about 150 years.

The Canal of the Two Seas

All the preceding Canals joined the Mediterranean and the Red Sea indirectly via the River Nile and its branches. However, in the 19th century, the idea of connecting the two seas by a direct Canal was put forward, with a view to facilitating trade between the East and West.

THE SUEZ CANAL

CHARACTERISTICS OF THE SUEZ CANAL (S.C.)

Overall length ..... 192 kms
From Port Said to
Ismailia ..... 78 "
From Ismailia to
Port Thewfik ..... 84 "
Breadth at water
level ..... 300 m
Breadth between
buoys ..... 180 m
Maximum permissible
draught of Ships . 53 ft
Depth of the Canal .. 19.5/20 m
Cross Sectional
area ..... 3600 m^2

SUEZ CANAL V/S CAPE ROUTE

The Suez Canal route if compared to the Cape route saves :

30% of the distance from Ras-Tannura to New-York

44% of the distance from Ras-Tannura to Rotterdam

58% of the distance from Ras-Tannura to Triesta

66% of the distance from Ras-Tannura to Constanza.

NAVIGATION IN THE SUEZ CANAL

- Navigation in the Canal is around the clock.
- The Canal is generally a single lane canal (with the exception of 4 by-passes).

Ships transit the Canal in three convoys daily :

- First convoy, from Port Said at ... 0100 hrs.
- Second convoy, from Port Said ..... 0700 "
- Third convoy, from Suez at ..... 0600 "
- Pilotage is compulsory for all ships of more than 300 tons.
- Four pilots are successively credited with piloting each ship from the first lightbuoy of the entry port till the lightbuoy of the exit port (2 road pilot + 2 Canal pilots).
- A speed limit is imposed in the Canal; it varies from 13 to 15 kms per hour according to the category and tonnage of ships. In the Southern Sector it varies between 11 and 15 kms per hour depending on the velocity and direction of the tidal current.
- On the average, a ship takes 14 hours to transit the Canal.

SUEZ CANAL VESSEL TRAFFIC CONTROL SYSTEM

The Suez Canal Authority has recently introduced the (SCVTCS) which is a very accurate system for ensuring safety of transit in the Canal as well as increasing the Canal numerical capacity.

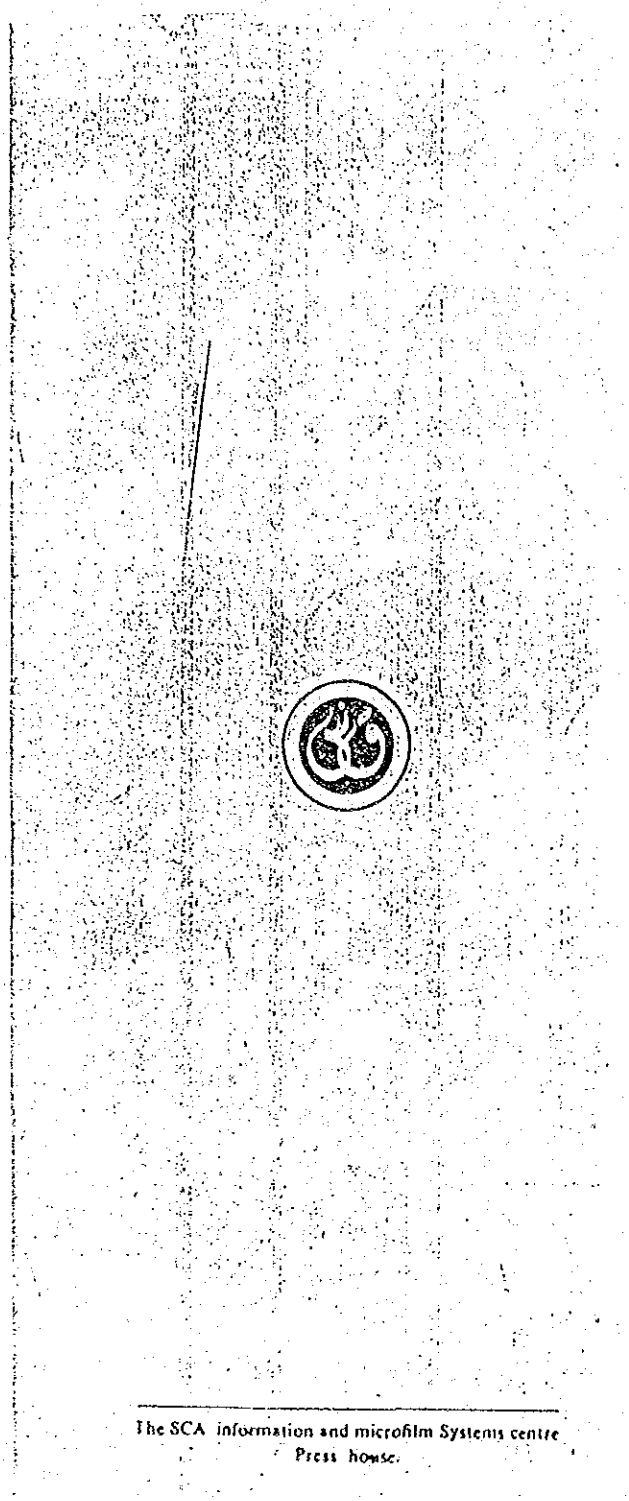
This system consists of :

1 - A three-station radar net (Port Said - Bitter Lakes - Port Thewfik).

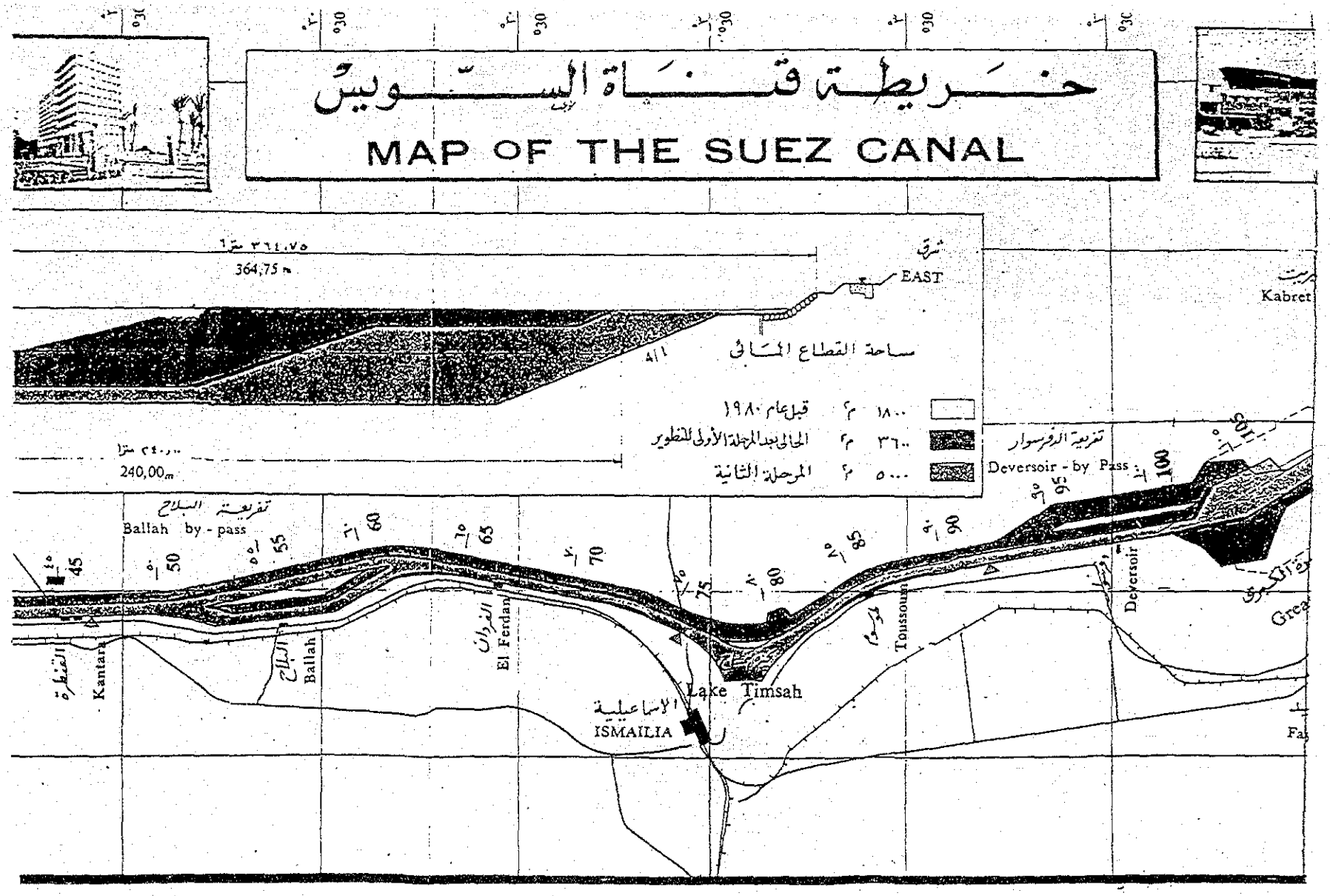
2 - A wireless, Loran C, position-fixing net (Port Said - Tenth of Ramadan City - Raas Sedre).

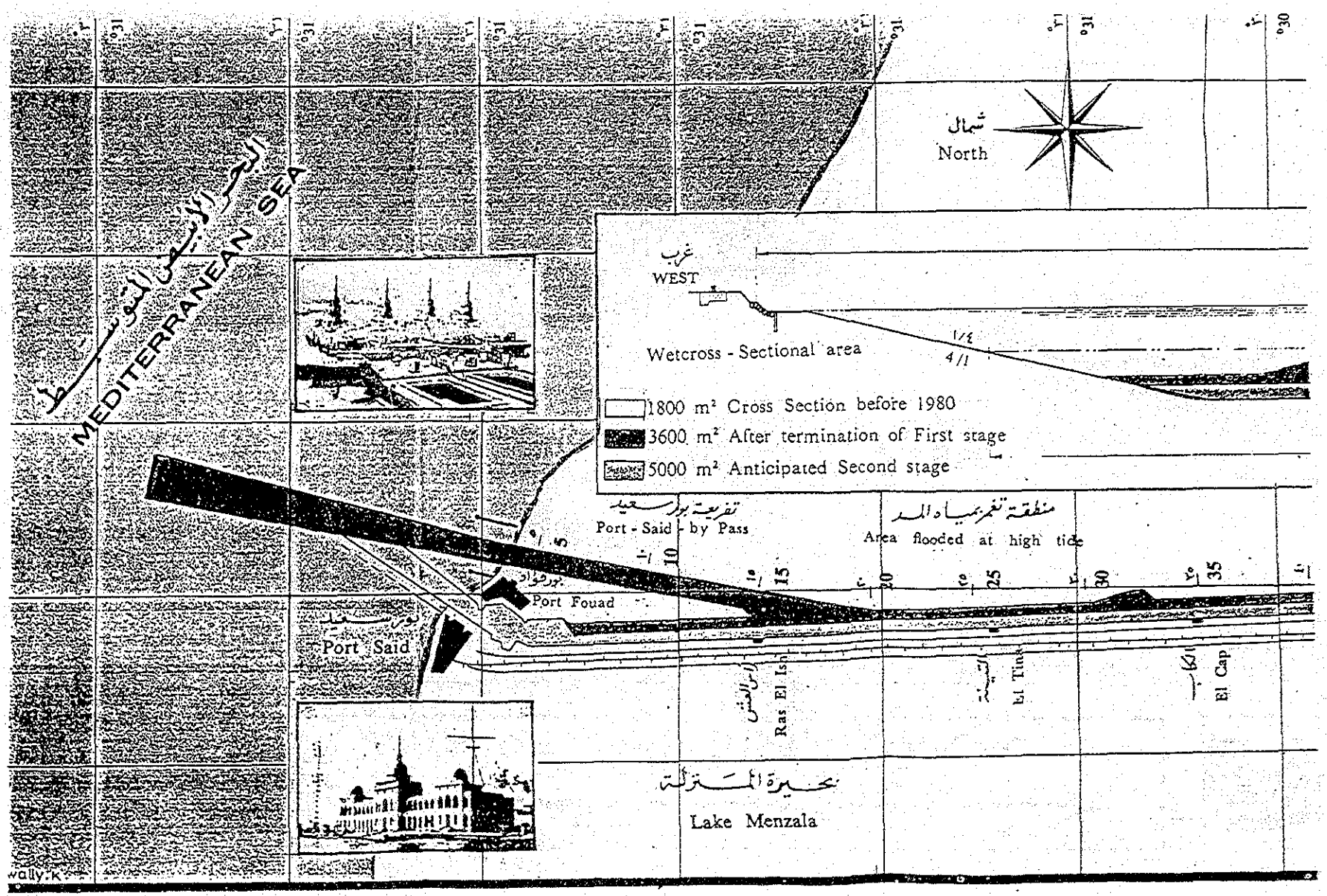
3 - Digital Computers network that aims at collecting accurate and comprehensive data about the traffic situation and displaying them on screens in the control room.

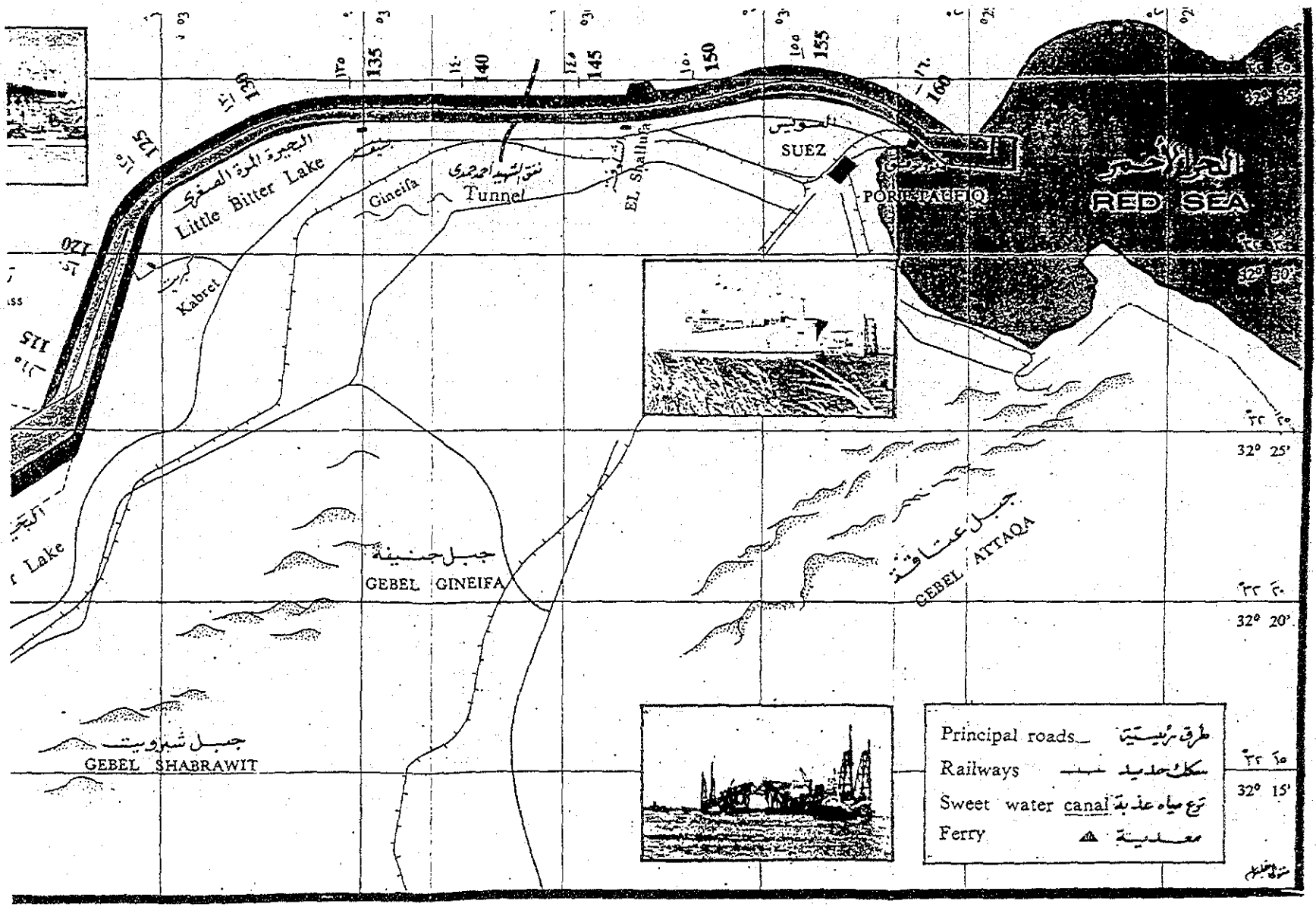
4 - Several wireless communication networks all along the Canal that keep contact between one site and another.



The SCA information and microfilm Systems centre
Press house.


خريطة قناة السويس
MAP OF THE SUEZ CANAL
٣٦٤,٧٥ متر
364,75 m
شرق
EAST
مساحة القطاع المائى
١٨٠٠ م٢ قبل عام ١٩٨٠
٣٦٠٠ م٢ الحالى بعد المرحلة الأولى للتطوير
٥٠٠٠ م٢ المرحلة الثانية
٢٤٠,٠٠ مترا
240,00m
تفريعة الرفرسوار
Deversoir - by Pass
تفريعة البلاح
Ballah by - pass
Kabret
Kantara
Ballah
El Ferdan
Lake Timsah
الاسماعيلية
ISMAILIA
Toussoum
Deversoir
Great
45
50
55
60
65
70
75
80
85
90
95
100


البحر الأبيض المتوسط
MEDITERRANEAN SEA
شمال
North
غرب
WEST
Wetcross - Sectional area
1/4
4/1
1800 m² Cross Section before 1980
3600 m² After termination of First stage
5000 m² Anticipated Second stage
تفريعة بورسعيد
Port - Said - by Pass
منطقة تغمر بمياه المد
Area flooded at high tide
بورفؤاد
Port Fouad
بورسعيد
Port Said
رأس العش
Ras El Ish
El Tina
El Cap
بحيرة المنزلة
Lake Menzala
5
10
15
20
25
30
35


البحر الأحمر
RED SEA
SUEZ
PORT TAWFIQ
EL Shallufa
Tunnel
Gineifa
Little Bitter Lake
Kabret
GEBEL GINEIFA
GEBEL ATTAQA
GEBEL SHABRAWIT
32° 25'
32° 20'
32° 15'
Principal roads
Railways
Sweet water canal
Ferry