

ALEXANDRIA PORT AUTHORITY

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ALEXANDRIA

وزارة النقل البحري



ARAB REPUBLIC OF EGYPT

A FEASIBILITY STUDY
FOR THE ESTABLISHMENT OF AN
EGYPTIAN PORTS TRAINING CENTER

February 1981

PROVISION OF MECHANICAL HANDLING EQUIPMENT
ALEXANDRIA PORT



FREDERIC R. HARRIS, INC., Consulting Engineers, New York

ALEXANDRIA PORT AUTHORITY
MINISTRY OF MARITIME TRANSPORT
ARAB REPUBLIC OF EGYPT

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PRC HARRIS, INC.
CONSULTING ENGINEERS, NEW YORK, ALEXANDRIA

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Dr. John Cumming
Consultant
PRC Harris, Inc.

PREFACE

The purpose of this report is to provide a plan whereby a foundation can be prepared for the establishment of a Training Center for the Ports of Egypt. The report is the result of an intensive study to determine the feasibility of such a program. This report has been designed to:

- a. Provide for the initiation of training for Ports personnel for the period beginning July 1, 1981 and ending December 31, 1982.
- b. Prepare an Organization Plan for the training of Ports personnel.
- c. Plan for the development of a multifaceted curriculum for the upgrading of Ports workers and for the education of new Ports Personnel.
- d. Initiate the design for the facilities of the Egyptian Ports Training Center.
- e. Prepare a plan for teaching Faculty to include job descriptions for the recruitment of technical assistance staff, for selection of trainers to be drawn from ports personnel, and for the utilization of staff from the Arab Maritime Transport Academy.
- f. Study and prepare a limited manpower study of the past, current and projected needs for trained personnel and to integrate this data into the curricula of the Egyptian Port Training Center.
- g. Prepare the general outline for Egyptian Port Training Center buildings, furniture, educational materials, training equipment, and audiovisual materials.

SECTION I

INTRODUCTION

SECTION I
INTRODUCTION

1.1 BACKGROUND ON THE PORTS OF EGYPT

1.1.1 The Ports of Egypt

The Ports of Egypt have developed historically in areas where trade or the industries of the Nation have been located. There are three major Port areas to consider in a review of Port development: (1) the Port of Alexandria, (2) Port Said and (3) The Port of Suez and the Red Sea Ports.

Alexandria was used as a Port 2000 years ago by the ancient sailors because of its proximity to the centers of civilization and Empire. The early creation of harbors at this point in the Mediterranean Sea led to its development and use throughout the centuries. Today, it handles approximately ninety percent of all maritime trade for the nation of Egypt. It is of significant importance to the development of a Port Training Program.

Port Said and the Port of Suez and Ismailia developed to serve the Suez Canal which was of value to all shipping nations of the world. The cargoes in this regard became specialized in commercial areas that were handled by these ports. Port Said of course handled some General Cargo. On the Red Sea smaller Ports such as Hurgada were used for fish cargoes, Ras Ghareb for petroleum and Safaga for grain. The total tonnages for these Ports together approximates ten percent of Egyptian sea trade.

1.1.2 Development of Port Training

During the second half of the 20th century, with industrialization and growth of world trade, Egypt's port facilities have become more and more heavily taxed by increased volume. Beginning in 1975 and continuing through the remainder of the decade, World Bank, U.S. Agency for International Development (AID), Japan and other nations have assisted the Egyptian Government with steps to modernize the ports, with particular emphasis on Alexandria. Initial training in modern equipment operation, maintenance and management systems has been undertaken in connection with these programs. As a result, it has become evident to Port Officials and responsible government ministries that a long term training facility for port workers would be beneficial, indeed is essential for the continued progress and efficiency of Egypt's ports. In 1980, a study of the Feasibility of Establishing a Training Center for the Ports of Egypt was requested by Port Officials, and authorized by U.S. AID. This report constitutes the requested study.

1.2 CURRENT STATUS OF THE PORTS OF EGYPT

A significant factor in determining the scope of a Training Program for Port Workers is the organizational status of the Ports of Egypt. Twenty years ago, political change brought about the nationalization of all basic industries by the Government which included the Ports. Private companies operating in the Ports were consolidated and combined into single operating groups. More recent is the movement to decentralize the resources of the nation. This has yet to have any significant effect on the roles played by the Ports of Egypt, particularly the Port of Alexandria.

Because of its location on the Mediterranean, the Port of Alexandria has stimulated the growth of the industry in this area. Industries of special importance include car assembly, electricity, chemicals, cotton and leather.

Management of the Port of Alexandria is the responsibility of the General Corporation of the Port of Alexandria under the umbrella of the Ministry of Maritime Transport as are the other Ports of Egypt. The Ministry is in charge of all Maritime Organizations and Companies and the Ports.

At present, in 1980-81, the Port of Alexandria is handling in total tonnage between 20 and 22 million tons of cargo. Port Said 1,000,000 tons and the Port of Suez 5,000,000 tons. The other Ports tonnage figures as follows: Adabiya 1,700,000 tons, Safaga 1,300,000 tons.

The tonnage figures give a comparative estimate of the areas where the impact of personnel training and development will be. (See next page. Ports of Egypt Cargo Flow 1980).

PORTS OF EGYPT CARGO FLOW - 1980

Port	Position	Total Tonnage	Kind	Passengers	Remarks
Alexandria	31 11.7 N 29 51.6 E	22,000,000	General Cargo	150,000	
Port Said	31 16 N 32 18 E	1,000,000			
Suez and Port Tewfik	29 56 N 32 33 E	5,000,000	General Cargo	30,000	
Ras Gharib	28 21 N 33 06 E	1,500,000	Ex. Crude Oil		GUPCO Co.
Ras Shokhier	28 08 N 33 17 E	1,500,000	Ex. Crude Oil		GUPCO Co.
Marsa Elhamra	30 59 N 28 52 E	N A	Ex. Crude Oil		GUPCO Co.
Safaga	26 44 N 33 59 E	1,300,000	Ex. G. C. & Phosphate Grain		Safaga/Red Sea Author- ity
Kossèir	26 06 N 34 17 E	200,000	Ex. Phosphate		Kosseir Phosphate Co.
Adabia and Port Tewfik	29 52 N 32 28 E	1,700,000	Ex. Cement & Oranges Im. Equipment & Paper	200,000	Red Sea Port Authority
Abu Zenima	29 02 N 32 06 E	N A	Manganese		Co.

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Source: Alexandria Port Authority

S E C T I O N I I

OBSERVATIONS AND CONCLUSIONS

SECTION II
OBSERVATIONS AND CONCLUSIONS

2.1 OBSERVATIONS

2.1.1 General Information and Data on the Work Force

In the Ports of Egypt there are approximately 15,000 workers at all levels. This work force has not been trained on any consistent basis for modern Cargo Handling methods. The dockworkers have tended to be composed of uneducated personnel on a father to son basis. The workers with diplomas including some work related training tend to be concentrated in the administrative section and upper levels of technicians and managers.

The Port of Alexandria until the 1960's was operated by private companies who supplied stevedores for cargo handling program. These companies determined their own equipment practices many of which are still in operation today.

Nationalization of private enterprise in basic industries occurred in the early 1960's. The port's stevedoring companies were collected into one group and in 1962 in Alexandria, the United Arab Stevedoring Company which also had a branch in Port Said, was created.

Dockworkers were employed in this new organization as well as some technicians and specialists. The Alexandria Port Authority today has policy control over the United Arab Stevedoring Company and the General Warehouses of Egypt as well.

Worker totals are approximations because of the many casual workers that must be employed. However, the figures given are as

follows: United Arab Stevedoring Company - 8000; General Warehouses of Egypt - 2000; and the Alexandria Port Authority - 3000. The other Ports of Egypt have approximately 3000 employees.

2.1.2 Organizational Distribution of Personnel

A. To determine Training needs, the structure of the Ports of Egypt had to be analyzed. It was necessary to accumulate data from a variety of sources and then to process them to reach generalized classification. This was difficult because of the multiplicity of specialities in some units. It was necessary to combine these specialities in a general grouping. For analysis of training purposes, these groups of course would need to be separated.

B. The major job classifications are as follows:

- | | |
|--------------------------------|--------------------------------|
| 1. Operators | 5. Equipment (General Workers) |
| 2. Dockworkers | 6. Administration Workers |
| 3. Foremen and Superintendents | 7. Managers, Engineers, |
| 4. Mechanics | Administrators |

A Chart is attached in which the totals for each employing unit is listed. Also training job classifications of employees is listed.

2.1.3 Vehicle and Equipment Operators in the Ports

A. Due to the influx of new equipment in the Port of Alexandria within the past two years (approximately \$30,000,000 in cost) an initial training program has been undertaken. (See Table 2.1 following list of equipment).

PORT WORKERS IN THE NATION OF EGYPT

	UASC	APA	GWE	SAID	SUEZ	TOTALS
1. Operators	787	150	200	0*	0*	1137
2. Dockworkers	4344	20	0	0*	0*	4364
3. Foremen and Supervisors	409	200	50	30	60	749
4. Mechanics, Car and Truck	292	200	100	60	120	772
5. Equipment and General Workers	883	1500	1100	800	1600	5883
6. Administrative Workers	781	700	450	100	200	2231
7. Managers, Engineers, Administrators	339	160	100	10	20	629
Totals	7835	2930	2000	1000	2000	15765

GRAND TOTAL: 15765
=====

* Canal Stevedoring Data to be collected

TABLE 2.1

LIST OF EQUIPMENT PROCURED
BY ALEXANDRIA PORT AUTHORITY
(UNDER USAID LOAN 1978-80)

Quantity	Description	Supplier
2	Lubrication Van	Rassow International Co.
3	Lubrication Units, Skid Mtd.	Rassow International Co.
3	Mobile Shop Trucks	Rassow International Co.
7	35 Ton Container Forklift Handler	Pettibone International Corp.
2	Truck Tractor, 110,000 GCW	Mack Trucks
2	Low Bed Semi-Trailer	Talbert Mfg. Company
25	Truck Tractors, 82,000 GCW	Ford
25	Trailer, Flat Bed, 50,000 Lbs.	Newark Truck International
40	Trailer, Platform, 70,000 Lbs.	Newark Truck International
17	Dump Truck, 30,000 GVW	General Motors
60	Truck, Flat Bed, 30,000 GCW	General Motors
2	Fuel Truck, 30,000 GCW	General Motors
22	Terminal Tractor, 39,000 GVW	Merican Curtis
5	Pickup Trucks, 5,000 GVW	General Motors
8	Loader, Front End, 20 cu.ft.	Intrade
4	Loader, Front End, 1½ yd.	Caterpillar
2	Motor Grader, Articulating	Caterpillar
4	Street Sweeper, 4-wheel	FMC
18	Forklift, 3 Ton, Free Lift Mast	Clark Equipment Company
50	Forklift, 3 Ton, Stand. Mast	Clark Equipment Company
10	Forklift, 5 Ton, Stand. Mast	Clark Equipment Company
8	Forklift, 15 Ton	Towmotor Corporation
18	Tow Tractor	Pettibone International Corp.
10	20 Ton Hydraulic Swinger Crane	P & H
9	40 Ton Hydraulic Swinger Crane	P & H
3	140 Ton Truck Crane	P & H
15	Truck Crane, 75 Ton	FMC
2	Ambulance	Intrade
2	Truck Crane, 300 Ton	P & H
10	20 Ton Hydraulic Swinger Crane	P & H
12	20' Container Chassis	Intrade
8	40' Container Chassis	Intrade
4	20' Container Spreader	Merican Curtis
3	40' Container Spreader	Merican Curtis
4	Truck, Garbage Handling	Mack Trucks
1	Truck, Tractor 75 Ton	Mack Trucks
1	Trailer, 75 Ton	Merican Curtis
7	Forklift, 5 Ton	Pettibone International Corp.

New equipment manufacturers have provided basic programs on maintenance and operation of the equipment to personnel designated for training by port management.

The Consultant believes that there is an urgent need for steps to be taken to train port personnel thoroughly and on a continual basis. Otherwise the depreciation of this vast equipment resource will be accelerated to excessive levels. This has been substantiated by the Equipment Project Consultants' observation of equipment maintenance and cargo handling and by interviews with operators and supervisors.

- B. The number of operators in Alexandria is approximately 1000 of all types, which in the light of the number of items of equipment and their complexity does not seem excessive.

The numbers of operators for each organization are as follows:

UASC	787
GWE	200
APA	150

- C. The Cargo Handling equipment falls into the following categories: cranes, varying from 20 tons capacity to 300 tons; forklifts from 3 to 35 tons, front loaders (container) 35 tons, trucks from 30,000 GVW to 110,000 GVW truck trailer units; and tractor units. There are in addition a few specialized items such as a grader, loader and sweeper units (See Appendix 8 - List of Equipment).

- D. The vehicle and general equipment operators of the Ports are

classified into four levels for seniority purposes. There are no training requirements involved of a relevant nature, as will be done in future upgrading, and career development program in an Egyptian Ports Training Program.

- E. The skill level of the operators varies greatly. In discussions with supervisors, there is no doubt about the generally low skill level of many of the operators of equipment in the Port. This is due to the lack of mechanical sophistication and background, but also to the limited amount of formal instruction and experience to date. Observation of equipment in the Port in operation at the ships, on the piers, or roadways indicates that normal safeguards and patterns of operation are not always followed.
- F. It is apparent that the first priority must be assigned to immediate and continuous formal training of this group of workers. This training must be included in their classification levels for advancement and also for salary differentials.
- G. In the formal training plan, a career development category must be designed for equipment operations. That is, graduates of technical and secondary schools will be able to enter the Egyptian Ports Training Center and through training be able to pursue a career leading to a high level of skill development.

2.1.4 Dockworkers in the Ports

- A. The dockworkers in the Ports of Egypt are organized into large nationalized companies. For example in the Port of Alexandria there are approximately 4000 dockworkers, of which about two thirds are permanent and one third casual. They constitute the largest body of employees and are the

least skilled and educated.

- B. Dockworkers activities of the dockworkers revolve around gangs of approximately eight workers depending in part on the types of products being handled.
- C. The classification of dockworkers is: Laborer, winchmen, hatchmen and foremen. A supervisor usually works with two or more gangs involved in cargo loading and unloading operations.
- D. The skill level of the dockworkers is sufficient for dock work but inadequate for increasing mechanization activities. They have had only limited training in the procedures of cargo handling and of their role in the Port Program. Now, as the Port contemplates a shift from the intensive labor operations of the past, to mechanization and containerization activities, this labor force will be the one most effected by developments. The need for training in this case is important and is recognized and supported by port management.

2.1.5 Mechanics and General Equipment Workers

- A. Mechanics in the Ports include about 500 specialized workers and general equipment workers about 3800 individuals.
- B. The mechanics are organized into five levels of advancement including a beginning year. This is based on seniority. The variety of backgrounds in this segment of the Ports labor force is quite great.

The general equipment workers, particularly in the Alexandria Port Authority include within their ranks a wide range of

occupations from saddlers to surveyors. Most of this work force has had no formal training on a continuous basis.

- C. Reports from supervisors and observations by the Consultant, indicate that intensive formal training, particularly in the new equipment of the Port is an important priority. For example, many items of equipment are side-lined and cannot be placed in operation because mechanics lack the necessary knowledge to "trouble-shoot" mechanical problems. There is much dependence on calling a local manufacturer representative who either is not available or who surprisingly does not know how to repair the equipment.
- D. Supervisors and Engineers working directly with the mechanics have stated that many mechanics cannot do the necessary repairs on the equipment which have been provided by the U.S. AID. In some cases, where training was provided, the mechanics did not attend the courses that would meet their needs. Manufacturers' Maintenance Manuals for mechanics are in most cases designed for workers in New York or Hamburg who in most cases have had years of experience with equipment and are aware of the dynamics of the mechanical principles and their application.
- E. The present equipment maintenance program in the Port of Alexandria remains heavily dependent upon the expertise of the Equipment Consultant covering the present procurement program. Additional training and maintenance assistance is essential upon completion of the present equipment program in the interest of long term strengthening of the mechanic staff.

2.1.6 Foremen and Supervisors in the Ports

- A. There are approximately 500 foremen and supervisors in the Ports. These individuals are of particular importance to the functioning of the Port as well as to the development of the Training Program of the Egyptian Ports Training Center.

These workers have been recruited from the ranks of the workers at the Ports and have substantial experience in the area in which they are assigned. Thus they are up at the 4th or higher levels of the seniority schedules for government employees, enjoying higher salaries and possibilities for promotion. See Table 2.2.

- B. If change is contemplated for the Ports in terms of updating the operations, then this group must have a significant part to play. Along with operators and mechanics, the foremen and supervisors need a continuous training program.
- C. At present there is no continuous, sequenced program of instruction for foremen and supervisors. There must be a commitment of time and budget for the training of these key people in Port Operations.

2.1.7 Agencies Involved in the Development of the Training Center Project

- A. The Agencies involved in the development and implementation of the Feasibility Study include the Alexandria Port Authority and its related companies, United Arab Stevedoring Company and the General Warehouses of Egypt; the Port of Suez and the Red Sea Port Authority, Port Said and the Port Said Port Authority, and the Arab Maritime Transport Academy.

TABLE 2.2

EMPLOYMENT LEVELS FOR
GOVERNMENT EMPLOYEES
BY YEARS OF SERVICE

Level	Years of Seniority at a Level Before Advancement	Total Years of Service	Entry Quality
1	-	25	
2	2	23	
3	6	17	B.A. Degree
4	8	9	
5	5	4	Secondary School Diploma
6	4	0	

The greatest concentration of Port workers and personnel being in Alexandria (80%), the Egyptian Ports Training Center will be located here.

The Port of Alexandria has 12,000 port workers. The Ports of Suez and the Red Sea Ports and Port Said have approximately 3000 workers.

B. Responsibility and Roles of the Agencies for the Egyptian Ports Training Center

1. Board of Directors, Egyptian Ports Training Center.
The Board will plan and determine policy for the Training Center. It will have the following representatives:
 - a. Chairman: Director, Arab Maritime Transport Academy
 - b. Secretary: Director, Egyptian Ports Training Center
 - c. Member: Alexandria Port Authority
 - d. Member: United Arab Stevedoring Company
 - e. Member: General Warehouses of Egypt
 - f. Member: Port Said Port Authority
 - g. Member: Red Sea Ports Authority
 - h. Member: Ministry of Maritime Transport

2. The Arab Maritime Transport Academy is expected to be in direct charge of the Egyptian Ports Training Center. It is suggested that a completely separate "Sector" be devised for AMTA organization so that the Egyptian Ports Training Center has an autonomous program and Director.

The Arab Maritime Transport Academy is the managing Academic Institution dealing with Maritime Training and it is interested in expanding the scope of its program.

The Arab Maritime Transport Academy has tended to concentrate its focus on Sea Training Activities, and programs, i.e. in the education of personnel who can operate marine vessels.

There is a small component of the Academy devoted to Port Administration instruction. It is recommended that these be attached to the Egyptian Port Training Center as they will be involved closely with Port Training Activities.

Over the past two years, the Arab Maritime Transport Academy has been offering courses in Port Administration and a few technical fields to a limited number of Alexandria Port Personnel. Also, a few offerings have been made for seamen on a trial basis.

The resources of the Academy of course deal primarily with sea activities including the librarians and educational materials. Therefore, a separate Library Media Center has been recommended so that there are adequate resources in vocational and skill areas of instruction. This applies particularly to mechanical arts, vehicle and equipment operation, cargo handling, and port operations.

3. The Alexandria Port Authority and its constituent groups, The United Arab Stevedoring Company and the General Warehouses of Egypt will make a significant contribution to the implementation of the program, as will the Port Authorities of Port Said, Suez and Red Sea Ports, and other Egyptian entities participating in the program.

The Training Units and Directors of these organizations will provide the major groups of workers for Training. They will need to coordinate the Training Courses to meet the needs of their groups. On-the-job training of workers will put new demands on supervisors and workers.

Equipment and facilities of these groups will from time to time be required for Training Programs.

4. The Training Center will be expected to assist the Port Authorities of Port Said and Port of Suez and the Red Sea Ports in coordinating their training needs and budget with the programs of the Egyptian Ports Training Center.

Equipment and facilities of these respective locations will from time to time be required for the Training Program.

5. Training Aids Now On Hand

A list of training aids presently available in the Port of Alexandria is shown on Table 2.3. This equipment was procured in connection with the purchase of American port equipment by the Alexandria Port Authority under a U.S. AID loan. In addition certain of the equipment suppliers provided training films on the specific equipment supplied.

TABLE 2.3
TRAINING AIDS PRESENTLY AVAILABLE
PORT OF ALEXANDRIA, EGYPT
 (February 1981)

Quantity	Description	Remarks
2	RT-0 16mm Sound Projector	
2	2690 Anscorama Slide Projector	
2	LP-10-3A Cassette Projector	
2	80/14 BUHL Overhead Projector	
2	338190 Wonder-Lite 70X70" Proj. Screen	
2	S-122 Portable Roving Rostrum, Complete	
2	DC12 2 Sided Reversible Chalkboard/ Corkboar, 4'X6'	
2	04120 Overhead Projection Desk	
1	Safety Film	.60 minutes
1	Operator's Film	20 minutes
1	Equipment Maintenance Film	20 minutes
1	Operator's Training Film	60 minutes
1	Mechanic's Training Film	8 hours
1	Operator's Training Guides and Lesson Plans	
1	Instructor's Training Guides	
1	Student's Lesson Plans	
1	Mechanic's Training Guides and Lesson Plans	
1	Instructor's Training Guides	
1	Student's Lesson Plans	
var.	Training Materials for 20T, 40T, 140T and 300T Cranes	

2.2 CONCLUSIONS

2.2.1 Impact of a Training Center

The impact of the Egyptian Training Center may be very great. As the Ports of Egypt provide the sustenance for much of the economy of the nation, any effect on these resources of the country will be bound to have profound implications for Egypt.

Through Training it should be possible to substantially improve the Operational level of the Ports. This means that cargo tonnages handled may increase somewhat, but also that faster and more expeditious handling will be possible. Thus, demurrage costs will be reduced. This in turn will effect the cost of goods for the Egyptian consumer.

It is noteworthy that the Egyptian Government has evidenced concern about the need for Training Officials of the Ports and Port Authorities and are willing to commit substantial resources from limited funds to establish a Training Program for Port Workers as well.

Also, there has been a realization that project funding for the Ports must be supported with ongoing Training Programs, if funds are to be secured for Port Development.

World-wide development in shipping and ports is accelerating in areas that require Training Programs. Mechanization of Cargo Handling is a fact. Containerization of Cargo is increasing rapidly in World Ports and it is evident that Egypt must increase its potential for service in this area.

Development in the Port industry of a major process of change

takes from 5 to 10 years between planning and implementation. The Ports of Egypt must have a Training System in place if they are to cope with port industry developments in the future.

2.2.2 Benefits of Establishing a Training Center for Ports

The Ports of Egypt would benefit from the establishment of a Training Center in many ways. A number of the benefits from such a program are described hereafter.

A. Benefits for Administration, Technical Staff and General Labor Force of Egyptian Ports.

1. Preliminary Training Program (Upgrading).
 - a. Skills in operating cargo loading equipment will be increased and more regularized and consistent.
 - b. Patterns of skill development can be prepared and implemented.
 - c. Promotion of personnel can be based on skill in addition to seniority.
 - d. Safety procedures can be enhanced for both individuals and the group.
 - e. Motivation of the work force will be increased along with respect for the job and position.
 - f. Confidence of the work force will be increased along with respect for the job and position.
 - g. Mechanical and Technical skills can be sharpened and made more broadbased.
 - h. Insight into new aspects of technology can be provided.
 - i. Supervisors may learn methods of approaching tasks and production by workers.
 - j. Managers may learn personnel planning concepts to better utilize the labor force.

2. Extended Training Center Program (Career Development).
 - a. Technical School and Secondary School Graduates can be employed in the Ports of Egypt.
 - b. Selection base of Ports workers can be broadened so that new employees can be given specialized training.
 - c. Certificated stages of a job schedule can be prepared from entry level through to retirement for Port employees.
 - d. The mission of the Ports of Egypt can receive substantial support from a Training Program.
 - e. Labor supply can be made almost totally permanent with a planned educational program.
 - f. Mechanical and Technical workers will be kept educated in the innovations in their fields.
 - g. Supervisors will be able to increase production in predictable stages.
 - h. Managers will be able to budget more funds for Training Programs as production of worker force increases.

B. Benefits for Equipment and Technology

1. Depreciation of equipment can be extended and perhaps even doubled through proper maintenance.
2. Allocation of equipment availability will be stabilized
3. Proper scheduling of Preventive Maintenance can be maintained.
4. Corrective Maintenance needs for equipment can be forecast more precisely.
5. Maintenance expenses will more likely be reduced after an initial catchup period.
6. Ports needs for equipment will be planned for.

7. Attention can focus on planning for equipment maintenance rather than reacting to emergency requirements.
8. Analysis of equipment operation can be made and problem areas defined.

C. Benefits for the Ports and Program

1. Coordination of Training Activities will maximize results obtained for the Government of Egypt.
2. A trained labor force in the Ports will reduce the cost of goods for the consumers of Egypt.
3. Planning for Port advancements (e.g. Containerization) will be done in a more direct manner.
4. New innovations can be considered and implemented more satisfactorily.
5. Total Egyptian Ports operations will tend to be better coordinated.
6. More sophisticated methods of Cargo Handling can be employed in the Ports.
7. Increased mechanization of the Ports can take place with increased savings.
8. Cargo damage will be reduced with a trained labor force.
9. Faster turnaround of ships will decrease demurrage costs.
10. World shippers will be more likely to improve freight rates to Egyptian Ports as operations improve.

2.2.3 Need for Two Phased Program

The Consultants presently assisting the Port of Alexandria (with the receipt of new cargo handling equipment, its integration into port operations and with the establishment of a related equipment maintenance system) will complete their work at the end of June 1981. The start up of a Formal Training Center could not commence earlier than January 1983, as indicated here-

after. In order that initial training effort be maintained during the period while the training center facilities and academic curricula are being developed, it is concluded that the training center program will require two phases of effort. The first phase, Preliminary Training Assistance, would provide the personnel to prepare specifications and plans for procurement of physical requirements for the training center, and would assist the Egyptian Training Organization in the preparation and erection of facilities. At the same time they would assist in preparing curriculum and faculty planning, and would assist in implementing the initial training effort, as described hereafter in Section 4. Thus this preliminary effort would prepare the way for the permanent program which would be undertaken on completion of the training center facilities. In addition, due to technicalities of funding procedures of the lending agencies, a time lag of at least a year would normally be expected for obtaining approval of funding for the formal training center program. The preliminary program would thus fill the gap, and at the same time assist with the development of the site and program. Thus a two phase program is concluded to be the most practical approach.

2.2.3.1 Preliminary Training Program

The first phase, Preliminary Training Program, as stated before, would be required to provide the personnel to prepare specifications and plans for procurement and assist in the establishment of the physical facilities, at the same time assist in preparing the faculty requirements and training program curriculum for the permanent facility. In addition, experts in equipment maintenance and port operations would be able to provide preliminary on-the-job training assistance prior to

the commencement of the Training Center. This Preliminary Training Program should cover the period July 1981 thru January 1983. A detailed description of this program is contained in Section 4.

2.2.3.2 Technical Assistance to Port Training Center

The second phase Technical Assistance program would be required about January 1, 1983 for a period of one or two years. This program would be for the purpose of assisting the school during its start up period. A detailed description of this program is contained in Section 5.

2.2.4 Estimated Cost of Training Center Program

A summary of estimated costs for technical assistance and of Procurement Loan requirements for facilities and equipment is shown on Table 2.3. A detailed cost estimate is contained in Appendix III.

TABLE 2.3
SUMMARY OF ESTIMATED COSTS
ASSISTANCE TO THE ESTABLISHMENT OF A
TRAINING CENTER FOR EGYPTIAN PORTS WORKERS

Preliminary Training Program (July 1, 1981-December 31, 1982)

Dollar Cost of Consultant	\$1,597,500	
Egyptian Pound Cost of Consultant		LE 179,676 ¹⁾

Training Center Start Up Assistance (January 1, 1983-December 31, 1984)

Dollar Cost of Consultant	\$3,168,000	
Egyptian Pound Cost of Consultant		LE 309,170 ¹⁾

Facilities and Equipment Procurement Loan (1981-1983)

Buildings	1,900,000	
Transport Equipment	240,000	
Training Equipment	880,000	
Audio Visual Equipment	215,000	
Total	\$3,235,000	- 1)
GRAND TOTAL	\$8,000,500	LE 488,486
	=====	=====

¹⁾ Egyptian Pound Costs of Counterparts, Egyptian Training Staff and cost of site, site preparation, erection of buildings, etc. in addition at expense of the recipient

SECTION III

RECOMMENDATIONS

SECTION III
RECOMMENDATIONS

3.1 THE RECOMMENDED PROGRAM

A two phase program for start up of the Egyptian Ports Training Center is recommended.

3.1.1 Program Schedule

Attached is a Schedule that provides a time-line on the Training Program, Faculty Involvement, Output (Number of Port Workers Trained), and Facilities Preparation.

3.1.2 Detail on Schedule

A. There are four levels of Training that are tracked through the Chart.

1. Graduate Level (which includes Upgrading courses for Managers and Supervisors).
2. Senior Level (which includes Upgrading Courses for Advanced Workers).
3. Junior Level: Career Development Program and Upgrading.
4. Training Teams.

B. During the Preliminary Training Period (July 1, 1981 to December 31, 1982) courses will be offered previously for Upgrading of Port Operators, Mechanics, Dockworkers and Supervisors. There also will be Training Teams going to the Ports of Egypt.

C. The Estimated Outputs of trained workers are given for each month of the 18 months period of the Preliminary Program. This amounts to approximately 2600 workers for the period.

EGYPTIAN PORTS TRAINING SCHEDULE

TRAINING SCHEDULE
OUTPUT OF TRAINERS

		Preliminary Training Period - 18 months												1951				1952							
		81						82						71				72							
		VI	VII	VIII	IX	X	XI	VI	VII	VIII	IX	X	XI	VI	VII	VIII	IX	VI	VII	VIII	IX				
Graduate Level	Upgrading Courses	Selection of Trainers																							
	Awards Managers Diplomas Subvisors	Training of Trainers, Supervisors & Admin. Subvisors																							
Senior Level	Upgrading Courses	Docu. 100, 100, 100, 100, 100, 100																							
	Advanced Promoters Operators Mechanics	Docu. 167, Oper. 18, Mech. 18																							
Junior Level	Career Development	Class for Career Development																							
	Upgrading Docu. Oper. Mech. Subv.	Docu. 30, Oper. 30, Mech. 30, Adm. 30																							
Training Teams	4 Teams	Selection of Team Members																							
	Specialist, Diplomas, Oper. Mechanics, Subvisors	Visits to Ports of Egypt																							

Graduate Level

Senior Level

Junior Level

Training Teams

Apprentices
1. Common Core
2. Specialist

Upgrading
Docu. 200
Oper. 150

TRAINING CENTER

Center Start-up Period - Two years

Graduation First Career Class

82						84						84						84											
7/1	1/1	7/1	1/1	7/1	1/1	7/1	1/1	7/1	1/1	7/1	1/1	7/1	1/1	7/1	1/1	7/1	1/1	7/1	1/1	7/1	1/1	7/1	1/1						
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	15	15	15	15	15	15	10	15	15	15	15	15
20	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	20	20	20	20	20	20	20	20	20	20	20	20
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
20	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3
30	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	5	5	5	5	5	5	5	5	5	5	5	5
Apprenticeship On-the-Job Training 12 credits 130						Apprenticeship On-the-Job Training 12 credits 130						Apprenticeship Specialization On-the-Job 3 mo 12 credits 12 cr 130						Apprenticeship On-the-Job Training 24 credits 130						Apprenticeship On-the-Job Tr. 12 cr 130					
Upgrading Deckworkers 100 Operators 50 Mechanics 100 Supervisors 50						Upgrading Deckworkers 100 Operators 50 Mechanics 100 Supervisors 50						Upgrading Deckworkers 100 Operators 50 Mechanics 100 Supervisors 50						Upgrading Deckworkers 100 Operators 50 Mechanics 100 Supervisors 50						Upgrading Deckworkers 100 Operators 50 Mechanics 100 Supervisors 50					
40	40	40	40	40	40	50	50	50	50	50	50	60	60	60	60	60	60	70	70	70	70	70	70	70	70	70	70	70	70

Time Line for Training Program
Preliminary thru Graduation of
First Class
Egyptian Training Center for
Port Workers

- D. It is recommended that a manpower study be conducted coincident with the beginning of the Preliminary Training Period. Such a study would be of assistance in the long-term program of training and development of the work force of the Ports of Egypt. It would include an examination of organizations and personnel in depth.

- E. Beginning January 1, 1983 the Center Startup Period begins and runs until December 31, 1984, a period of two years.

The Career Development Program will be initiated with 130 fulltime students.

- F. The output of Training Workers will be about 3200 in 1983, and 2400 in 1984. It is contemplated that with the introduction of a career development program that the workforce will become more specialized.

3.2 SCOPE AND OPERATION OF THE PROGRAM

3.2.1 Preliminary Program

It is recommended that the Preliminary Period will last for a year and a half, from July 1, 1981 to December 31, 1982. During this period of 18 months, the following goals should be accomplished:

1. Training of a cadre of Trainers from Port personnel selected from the area of Training concentration: vehicle and equipment operators, mechanics and equipment workers, foremen and supervisors, dock-workers.

2. Provide initial Training for upgrading of vehicle and equipment operations, mechanics and equipment workers, foremen and supervisors, dockworkers.
3. Design specifications for facilities for the Training Center, Training Equipment, Audiovisual Equipment, Texts and Guides. Call for bids and begin construction of facilities.
4. Develop the Curriculum for the Training Center, including major areas of concentration, course outlines, guides, audiovisual materials.
5. Prepare operational programs including enrollment procedures and selection of students, budgeting and fee structure, classrooms and workshop utilization schedules, etc.

3.2.2 Technical Assistance for the Startup of Training Center

The Egyptian Ports Training Center should have two years of startup assistance provided under a technical assistance program as described in Section V. During this period, the following goals should be accomplished:

1. Recruit and select career port workers from vocational technical backgrounds and from secondary school graduates. An intensive six month course to be offered during the apprentice period of 3 years. The students will go to on-the-job assignments at the end of six months to the end of 3 years a Port Worker Certificate will be given. All Training leading to a Port Workers Certificate will be classified as an Apprenticeship.

2. Offer Upgrading Programs for all Port employees to qualify for the Port Certificate. Offer Training leading to promotion as part of a Senior Level Program.
3. Offer courses for supervisors, and engineers leading to a diploma in the graduate level of the Training Center.
4. Offer special graduate seminars and conferences for awards for Port Managers, Directors and Administrators.
5. Training teams to set up regular schedules for special offerings to be given at Port Said and at the Port of Suez and the Red Sea Ports.

3.2.3 Accomplish Training Cycle

The Egyptian Ports Training Center from January 1, 1983 to December 1986 should complete the first training cycle for Career Port Workers.

Placement of these graduates, salary schedules, and promotions related to training will need to be determined.

Upgrading of the operators of equipment, dockworkers, mechanics supervisors, and foremen in the ports should be well under way. New employees that come on line should pass the Training Phase for Career Employees. A plan should be established for a continuous schedule of in-service, on-the-job programs.

New programs of Training will need to be determined to meet innovations for example such as containerization. These will be a need for well qualified personnel for new projects.

A determination will need to be made if recruiting efforts should be expanded to other Arab nations and to port workers in African nations.

3.3 RECOMMENDED COURSES OF ACTION AND SUGGESTED IMMEDIATE STEPS

Courses of Action to be taken promptly

- A. Establish as soon as possible a Preliminary Training Program with Technical Assistance Experts for a period of 18 months, from July 1, 1981 to December 31, 1982. (Estimated Cost \$ 1,600,000 - Total Egyptian Cost L.E. 180,000).

- B. Secure funding for an Egyptian Ports Training Center to be established and functioning by January 1, 1983. This would be with Technical Assistance for Training experts (for 2 years), Facilities, and for Training Equipment. (Estimated costs \$ 6,500,000 - total Egyptian cost L.E. 300,000).

- C. Advise the Egyptian Government of the Current Status of the ports and needs for training and then advise them to seek funding support for the proposed program, which would involve Egyptian costs of construction and training staff in addition to the above.

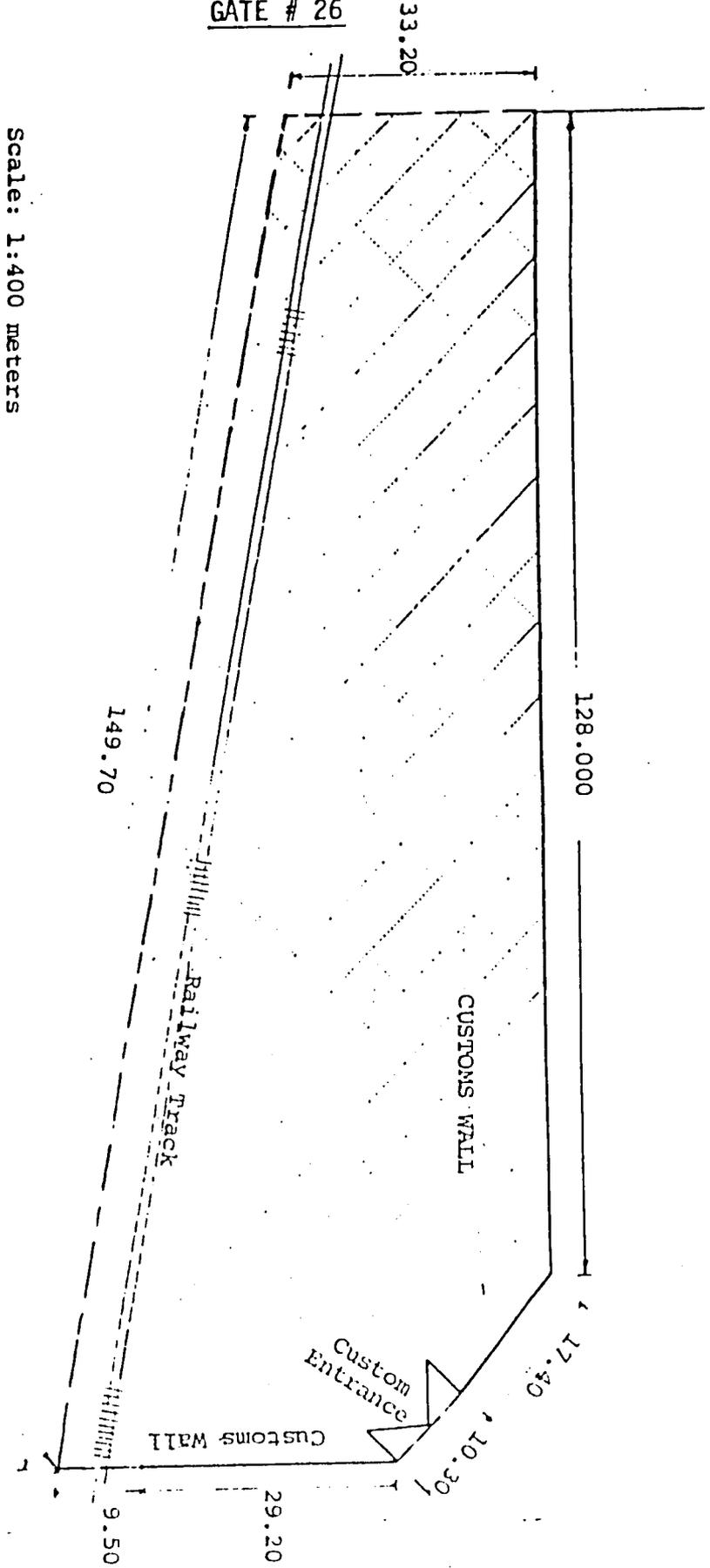
D. Site Recommendations

Support the Alexandria Port Authority designation of and willingness to provide a site adjacent to the port for a training center location. See following drawing showing site adjacent to Gate 26. No other suitable sites were located anywhere within reasonable distance of the port. With this site, together with the properties of Arab Maritime Transport Academy at Abou Kir, the logistical problems of distance to Abou Kir are resolved. While Abou Kir provides space, it suffers from distance. Alexandria sites have proximity in their favor, but inadequate space. The site proposed by Alexandria Port Authority solves the problems. On-the-job training for active port workers and job trainees can be carried on out of the Alexandria site. Long term training can be conducted at Abou Kir. See Sections IV. and V for details.

EGYPTIAN PORTS TRAINING CENTER

SITE PORT

GATE # 26



Scale: 1:400 meters

S E C T I O N I V

PRELIMINARY TRAINING PROGRAM

Egyptian Ports Training Center

Period: July 1, 1981 to
December 31, 1981

(18 months)

SECTION 4
PRELIMINARY TRAINING PROGRAM

INTRODUCTION

The Preliminary Training Program should be initiated on July 1, 1981 and would extend for a period of 18 months to December 31, 1981. Because of the urgency for training in terms of Ports equipment damage and operation, there are immediate needs to be met for upgrading of the equipment operators, mechanics and supervisors and the dockworkers.

The Preliminary Training Program would emphasize upgrading of currently employed staff beginning with vehicle and equipment operators. In the Port of Alexandria there are approximately 10000 of these workers involved in equipment operation (dealing with \$30,000,000 of new equipment). Mechanics working with this equipment require training in depth on the various systems many of them completely different from past vehicular experience (e.g. the two-stroke engine design). Supervisors must be made aware of the characteristics of these machines vis-a-vis the operators and dockworkers so that they can make proper judgement about Cargo Handling. Managers and Administrators must be brought into planning for Port Operations on a more continuous basis.

As the new Container Terminal will be scheduled to be operating by the end of 1982, training will be undertaken for on-site personnel as needed.

4.1 PRELIMINARY PORTS TRAINING

The initiation of the Preliminary Ports Training Program will set in motion the following activities.

- A. A Technical Assistance Team of Experts in Port Programs will initiate training for the following areas:
 - 1. Preventive and Corrective Maintenance
 - 2. Operator Methods with Equipment
 - 3. Mechanical and Supervisory Training
 - 4. Management, Administration and Port Operations

- B. Visits to Ports of Egypt by Training Teams to provide for urgent needs for Training at those locations and to assess projected requirements.

- C. Development of a Curriculum for an Egyptian Ports Training Center that will include courses for Dockworkers, Operators, Mechanics and Equipment Specialists, as well as Managers and Supervisors of the Port.

- D. Designing and preparing specifications for Classrooms, Workshops, and Areas of Maintenance and Repair, and the Offices of the Egyptian Ports Training Center.

- E. Preparing a Plan of Organization of Teaching Specialists including appropriate job descriptions; the Establishment of a cadre of trainers from port personnel; and a corps of faculty from the Arab Maritime Transport Academy.

- F. Conducting manpower study of Ports personnel to determine current needs with projections for future training requirements, and developing a candidate selection system and funding program.

- G. An estimated schedule of steps and timing for the program

from feasibility thru Preliminary Training to Training Center Start Up is shown on Table 4.1.

4.1.1 Goals to be Accomplished

The goals of the Preliminary Plan will be to:

- A. Provide immediate short-term training for ports personnel in the area critical to equipment operation, maintenance, and supervision.
- B. Promote and provide for both preventive (daily) maintenance and corrective maintenance (scheduled checks) for all Port Equipment.
- C. Develop the curriculum of the Egyptian Port Training Center including a master course guide and schedules, course descriptions, sample lesson plans for each course, and educational materials and equipment.
- D. Provide results from a manpower study of port personnel which will list current staffing, number of personnel on each position level, employment practices and supply of available personnel and projected data for the ports labor force.
- E. Provide complete specifications for the Egyptian Ports Training Center for buildings, furnishings, educational maintenance training equipment and audiovisual materials so that they can be placed for bid.

4.2.1 Training Council for the Egyptian Ports Training Center

A Training Council will be established from key personnel

TABLE 4.1
ESTIMATED SCHEDULE FOR
START UP FOR TRAINING CENTER FOR EGYPTIAN PORTS

1/1/81	Feasibility Report under preparation
2/1/81	Chairman, Alexandria Port Authority grants land in Port for site.
3/1/81	Report finished
7/1/81	Preliminary Training Program Team starts.
10/1/81	Specifications ready, site selected. Buildings, equipment for training, etc.
11/1/81	Advertise for buildings and equipment.
1/1/82	Bid openings for facilities and equipment. Start preparing site.
2/1/82	Bid awards
7/1/82	Building arrive. Specifications ready for Technical Assistance to Permanent Training Center (Beginning 1/1/83 - Mechanical, Management, Operations, Workers).
8/1/82	Advertise for Technical Assistance to Training Center.
10/1/82	Bid openings for Technical Assistance
10/1/82	Building arrive
11/1/82	Awards for Technical Assistance.
1/1/83	School starts Technical Assistance Team starts.

involved in ports workers training and assignment to do the following:

- A. Assist in the application of the training effort.
- B. Assess immediate and long-range training needs of Ports of Egypt personnel.
- C. Coordinate utilization of facilities, and schedules of personnel.

4.1.3 Output of Trainees of Preliminary Training Program

The output of trainees of the Preliminary Training Program (Upgrading) should be as follows: (18 months, a minimum of one course per workers).

1. Trainers (Instructors and on-the-job)	200
2. Vehicle and General Equipment Operators	350
3. Mechanics and Equipment Workers (Mechanics 112)	392
4. Supervisors and Foremen	140
5. Dockworkers (1 formal class, 2 classes Trainers)	1,400
6. Training Teams (Ports of Egypt Workers)	340
TOTAL	<u>2,462</u>

4.1.4 Ports Personnel to be Trained During the Preliminary Period

The work force of the Port Terminal of Alexandria includes fifty-seven (57) job classifications for the United Arab Stevedoring Company, and additional classifications for the Alexandria Port Authority and for the General Warehouses of Egypt. These have been re-organized into seven major class-

ifications for the study.

These occupational job classifications have been placed into four occupational areas for purposes of training in the Preliminary Ports Training Period.

- A. Operators
- B. Mechanical and Equipment Workers
- C. Supervisors and Managers
- D. Dockworkers

The Occupations Job Classifications will include the following personnel:

- A. Operators:
 - 1. Truck
 - 2. Truck and Trailers
 - 3. Crane
 - 4. Forklift
 - 5. Crane Operators
 - 6. Driver Helpers
 - 7. Tractor Operators
 - 8. Forklift Operators Helpers
- B. Mechanical and Equipment Specialists
 - 1. Mechanics
 - 2. General Equipment Workers including:
 - a. Body workers
 - b. Electrical System workers
 - c. Engine specialists
 - d. Lubrication workers
 - e. Other workers with vehicles
- C. Management and Supervising Technical
 - 1. Directors
 - 2. Supervisors
 - 3. Superintendents

4. Foremen
5. Bodyshop personnel, painters
6. Welders
7. Storekeepers
8. Laborers and trainers

D. Dockworkers

1. Laborers
2. Hatchmen
3. Winchmen

The Preliminary Training Program would involve the following aspects:

1. Administration and Faculty
 - a. A Director would be appointed from the staff of the Arab Maritime Transport Academy. This individual would be directly under Director General of the AMTA.
 - b. A Faculty of four full-time teachers would be appointed and attached to the EPTC (AMTA). These individuals would be specialists in:
 1. Vehicle and Cargo Handling Equipment
 2. Mechanical and Technical Fields
 3. Stevedoring and Dock Operations
 4. Management and Port Planning
 - c. A cadre of 75-100 Trainers to be trained from Port Personnel. These would be primarily on-the-job teachers.
 - d. A seven man team of port training specialists with home office support would be supplied under a

Technical Assistance Program. The team would consist of:

- Project Manager (Port Specialist)
 - Instructional Director (Training Course Specialist)
 - Equipment Maintenance and Operation Specialist
 - Port Management Specialist (Port Management and Accounting).
 - Audiovisual (video) Specialist
 - Specification/Procurement Engineer
- e. Training Team composed of 3 to 4 specialists appointed from AMTA Faculty.

2. Facilities and Site

- a. Use of Mechanical Repair and Vehicle Rebuild Building and Classroom of UASC (Gate #27)
- b. Use of Workshop (Metal Working Equipment and Maintenance) of UASC (Gate #10)
- c. Use of Classrooms at AMTA Miami Site
- d. Driving range and concourse at Abou Kir
- e. Cargo Handling Staging Area near Gate #10

3. The initial phase beginning in July 1981 will be for the selection of port personnel who will be trained to assist in upgrading and instructional phases (one month) the training of the training group will then commence (three months). And the selection of workers for training, and the development of schedules will begin (one month).

The start of the Training of port workers, operators, mechanics, supervisors and dockworkers will then be

undertaken. The Training Schedule for the Preliminary Period follows:

4. Schedule of Training Program

- a. July 1, 1981 - September 31, 1981 (4 months)
 - (1) Training of Training Group
 - (2) Training of Supervisors
 - (3) Training of Workers from Port Said and Red Sea Ports

- b. November 1, 1981 - December 31, 1982 (14 months)
 - (1) Training Operators
 - (2) Training of Mechanics and Technicians (all ports)
 - (3) Training of Dockworkers
 - (4) Training of Supervisors (all ports)
 - (5) Training of Management and Administrators (all ports)
 - (6) Training of Container Terminal Personnel
 - (7) Training Team to Egyptian Ports

5. Planning Schedule

- a. Technical Assistance Specifications Specialist (4 months, July 1, 1981 to October 31, 1981). Preparation of Specifications for Buildings and Training Equipment.

- b. Preparation of Curriculum for Egyptian Ports

- c. Manpower Study for Ports of Egypt in terms of Training Program.

- d. Recruitment and Training Schedules developed.
 - (1) Courses for Vehicle and Equipment Operators
 - (2) Career Development (Apprenticeship, Junior level I, II; Senior level I, II, III;

- (a) Dockworkers I, II, III, IV
 - (b) Operators I, II, III, IV
 - (c) Mechanics and Equipment Workers I, II, III, IV, V
 - (d) Administrative Workers I, II, III
- (3) Graduate Level Programs
 - (a) Supervisors, Engineers
 - (b) Managers
 - (c) Administrators
 - (4) Training Team Programs
 - (5) Trainer-Training Program in Instructional Studies

4.2 CURRICULUM OF PRELIMINARY PORTS TRAINING PROGRAM AND TRAINING EQUIPMENT AND MATERIALS

4.2.1 Structure of Preliminary Egyptian Ports Training Program

The curriculum of the Preliminary Port Training Program will deal with major and urgent needs related to Ports personnel activities as well as establishing a foundation for the Egyptian Ports Training Center Program. The emphasis will be on the upgrading of staff currently employed.

The direction of curricula design has been shaped by intensive discussions and research with officials and staff of all the major port organizations. Areas of great concern relate to operator maintenance, both preventive (daily) as well as corrective (major repairs); safety in all aspects in the Port including equipment operation on the dock and in cargo

handling; Port operations understanding so that from port laborers to managers there is knowledge of the role of the Port in the nation ; incentives for port workers including position levels, salaries and promotions, equipment operation and the training of personnel for multiple functions; Equipment Systems and their functions in the proper operations of various items of equipment; proper maintenance for all types of mechanical devices and equipment; management programs to provide for efficient port operation.

Educational concepts will be applied in ports workers training. A system approach will be used in developing the Training Program for both the Preliminary Program and for the Egyptian Port Training Center. This will provide a unified direction so that all phases of instruction are complementary and sequential. This is important in as much as the system will incorporate a wide range of programs and workers in the Ports Courses that will be in Arabic.

1. For the Preliminary Training Program (which will initiate the training sequence) job analysis will be done in order that Performance Objectives or tasks can be prepared. A broad approach to this will include interviews with Supervisors of the workers as well as selected workers. Analysis will include current job descriptions that are available. On-the-job observation of the work will add another dimension.

After the information is obtained from these and other sources, the data will be tabulated and then assessed. The nature of the job (e.g. forklift operator) will be defined and described in behavioral terms. Such analysis will include input from research in the Port industry as well.

Then, training objectives will be prepared for the job. The desired performances will be stated as objectives to include the criterion of performance (e.g. forklift operator able to stack 200 pallets per day), the conditions of performance (a 3 or 5 ton forklift, general cargo on pallet to be moved from ship to warehouse entrance) and a description of terminal behavior (e.g. the forklift operator will move pallets without damage to cargo, and provide preventive maintenance to the equipment as needed, and observing safety precautions).

The Training objective will then be checked by actually having a performance test (the forklift operator will be tested by the Trainer while at work on an actual cargo unloading operation). A Training System will be developed to indicate the progress of the Performance tests.

The corps of Trainers will assist in the implementation of training objectives and instructional activities of this on-the-job approach. This will be carefully organized, staffed and supervised by the master teachers and faculty.

The standards will be designed to provide increased skills for the workers. These will be prepared during the initial training period. Every effort will be made to ensure that quality of work is improved as well as quantity.

The Television Demonstration Mode Approach will permit the immediate development of training materials for the students that will be in the native tongue, Arabic. This system will provide a means of using the skills of the expert on a continuous basis.

A variety of other audiovisual aids will be produced including transparencies for the overhead projector, posters, working models of basic nature, photos, slides, etc. With an audiovisual specialist available the production will be done in a professional manner.

4.2.2 Television Demonstration Mode

- A. A key element in the educational system during the Preliminary Training Period will be that of the Television Demonstration Mode. This concept will provide a means of bridging the gap between sophisticated technology and learner understanding.

This approach will permit the maximization of use of the skills of the experts, and in a sense multiply their effectiveness on a large scale.

In addition, this approach to instruction will leap the language barrier which will allow the learner to accelerate his growth in needed skills.

- B. The Television Demonstration Mode will employ the video-cassette (half-inch) with portable video recorder/player units.

The procedure will be to videotape a significant

competency-based activity from a lesson plan, which an expert decides should be recorded.

The lesson plan component (e.g. changing a tire; adjusting a diesel injector; rigging a crane; a supervisor assisting a worker, etc.) will be demonstrated by the expert. The audio-visual specialist will videotape the Demonstration. As this will be in English, the AV Specialist will have the sound tract converted to Arabic. This will be done on a video recorder/player with editing capabilities. The video-cassette will then be duplicated so that four copies will be available:

1. Master Copy to file
2. Copy for the Library-Media Center for use by Students
3. Copy for the Sponsoring Agency
4. Copy for the Instructor

- C. The Television Demonstration Mode (TDM) video-cassette will be used by the teacher-expert as part of classroom or laboratory discussion on the particular concept or principle.

In use, the half-inch video-cassette recorder/player unit permits by remote control the stopping of the tape on any point in the demonstration as is shown on a color monitor. This permits the instructor to discuss the item, to return to a given point (the items can be programmed on the control unit to a specific number on the tape), or to speed past material that is not relevant.

- D. The student can participate in the use of the TDM video-cassette. The teacher will suggest that the students

review the cassette when it is convenient for them. A copy is available in the classroom Center.

The video-cassette half-inch (which are slightly larger than an audio recording cassette) are easily placed on a player and activated through two steps.

The advantage to the student is that the tape can be played as many times as desired, and can be reviewed for any given point. Also, the Demonstration is in Arabic so that understanding and learning can occur.

- E. A large-screen television monitor (72") will be employed for large groups. Video-cassette record/player units can be plugged into the large-screen unit.
- F. The potential for the TDM video-cassette program is quite good. A library of video-cassettes can be built up by the resident experts in a variety of fields. Not only can they be used by present faculty, but also for future use. The work of the skilled partitioner of mechanical arts will find that his work can be extended far beyond the bounds of the single classroom, workshop, or laboratory.

With a basic collection in English or in this case Arabic, it would be possible to use the materials by means of translation or modification for many dialects within the country or by additional translation in other countries.

As the Ports fields is a fertile one for the development of teaching materials, this will provide a ready base for the competency-based approach, or the hands-on type of instruction.

In the Preliminary Training Program, Teaching Teams will be taking courses to all of the Ports of Egypt. It will be easy to transport the portable equipment for a television demonstration at a site remote from the Center and the expert.

- G. A related aspect of the TDM concept, is the use of the video-cassette to analyze the work of the student (or the faculty member). A process performed by a student can be taped and then replayed (Micro-teaching) for evaluation by the supervisor, or teacher.

The care, and attention given by the student (Port Worker) to the lesson (placing a sling properly around a box) can be clearly shown (sling binding, or box crashing to the jetty).

Pride and discipline in work patterns can be effectively displayed as well as the learning of the skill.

4.2.3 Training Curricula for Trainers and Upgrading Workers

As the Egyptian Ports Preliminary Training Program will deal with areas of Port Activity that require urgent attention, the key element in initiating the Training Program will be a Trainer sequence of courses and curricula for Operators, Mechanics, Supervisors and Dockworkers.

4.2.3.1. The Trainer Curriculum

Trainers will be selected from the best personnel in each division in which training will be provided. They will serve primarily in on-the-job capacities, carrying through other formal classroom assignments. A chart is attached that outlines the Trainer Courses as well

TRAINER COURSES

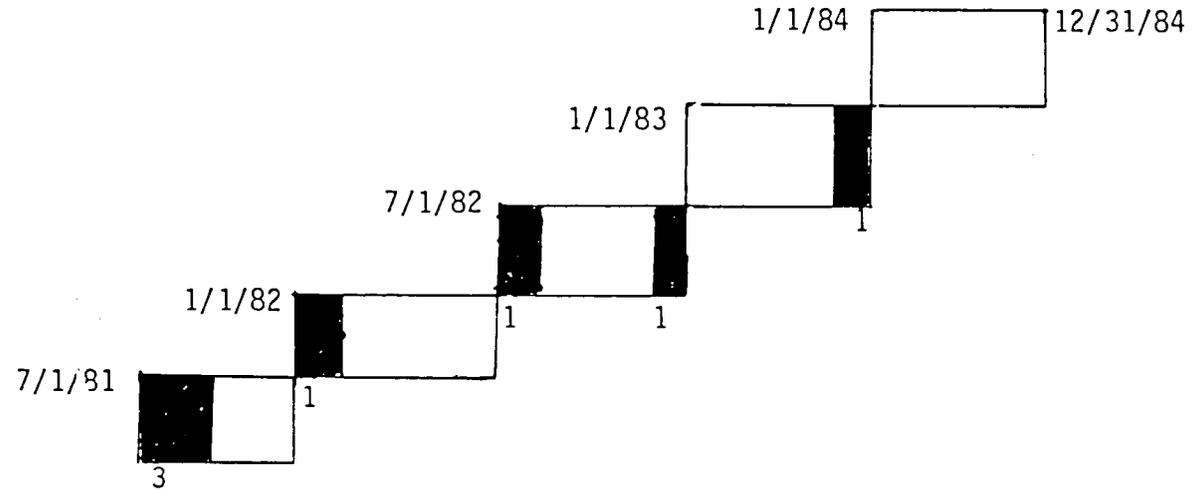
- Motivational Techniques.
- How to determine Learner Needs.
- How to Design Instructional strategies to meet Needs.
- How to Design Lesson Plans and Courses Outlines.
- How to Evaluate Students Achievements.
- How to Evaluate Courses.
- Use of AV AIDS.

- Demonstrations
- Program Development

4-17

Faculty, Workers, Schedule

- Prelim. - 3-6 months Blocks
- EPTC - 4-6 months Blocks



Trainers needed - 18 months
 Operators - 18
 Dock workers - 167
 Mechanics - 18
 198

Course Instructors

- AMTA - 1
- Tech. Expert.- 1
- Trainer Coord.- 1

as the Staff, Workers and Schedules.

The courses will provide the trainer with basic skills in presenting formal and on-the-job lessons including motivational techniques, determining learner needs, devising teaching techniques, designing lesson plans and course outlines, evaluating students work, the use of audiovisual aids.

A micro-teaching unit will be utilized. This will be basic video camera, a VTR (Video Tape Recorder), a television monitor, and a supply of cassette tapes. Demonstrations on video cassette will be done by the trainers to improve their teaching ability as described hertofore.

The training and instructional coordinator will develop the courses and instruct the trainees.

4.2.3.2. The Operators Curriculum

There are approximately 1000 vehicle and general equipment operators to be trained. A chart indicating the courses and staff, workers, and schedule is attached.

In training the operators a program of formal courses and driver training will be included. A driving concourse will be used for trucks, truck-trailers, tractors, cars and pickups. Cargo Handling equipment will be placed in a Staging Area with equipment, forklift, front-end container loaders, crane, pallets, containers and other items to be used for practice will be included in this area.

OPERATOR COURSES

Before Operating Vehicle (Forklift, Truck, Trailer, Cranes)
Tractors, Container Loaders

Steps in Operating Vehicle
Steps after Operating Vehicle

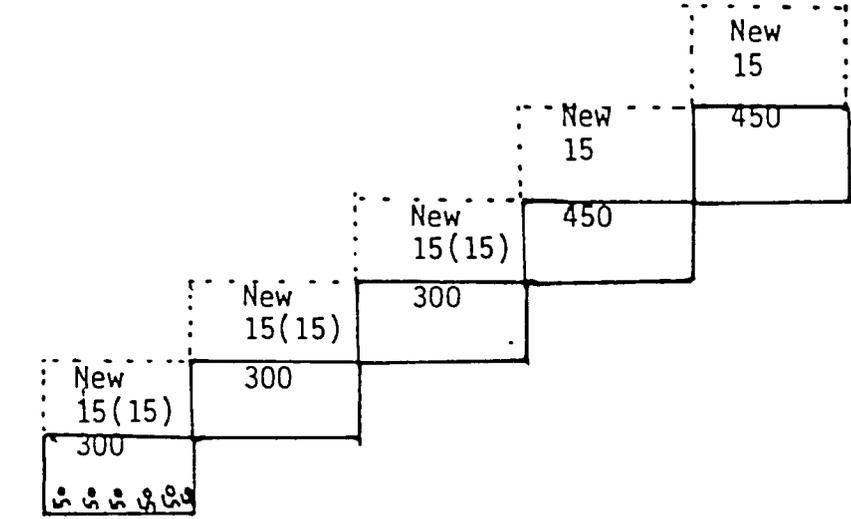
Reading Equipment Guages

4-19 Safety in use of Equipments
When Prevention Maintenance is needed.
When Corrective Repair is needed.

Troubleshooting
Danger signs

English-Signs

Effects of Good Maintenance and Operation



10 per wk, 1 class

- 1 Trainer Coor.
- 3 Trainer Assis.
- 1 from Trucks
- 1 from Cranes
- 1 from FL

New group each month

- 18 24 6 months
- Students Selection
- 3 Trucks
- 3 Cranes
- 3 FL

Courses will include steps before, during and after operating a vehicle, reading equipment gauges, safety in operating equipment, preventive maintenance, corrective maintenance, trouble-shooting, effects of good maintenance and operation. Demonstrations will be followed by use of the appropriate range with a Trainer. All drivers will be checked on the driving concourse to test their ability. It is planned that ten to fifteen operators will be trained each week. The formal class instruction will be followed by additional instruction from a Trainer for the specific item of equipment.

4.2.3.3. The Mechanics Curriculum

Mechanics number about 500. A chart including the courses, as well as the staff, workers, and schedule is attached. The prime objective will be to develop basic skills in relation to an understanding of the cargo handling equipment in the Ports.

The mechanics curriculum will include the following courses (emphasizing the new equipment), diesel engines (2-stroke and 4-stroke), gasoline engines, use of special tools, safety on-the-job, hydraulic systems, fuel systems, brake systems, electrical systems, trouble-shooting.

Approximately five or six mechanics will be given formal classes per week. In addition to the above items, problem-solving techniques will be presented. Following the formal instruction, on-the-job trainers will carry new courses to each group.

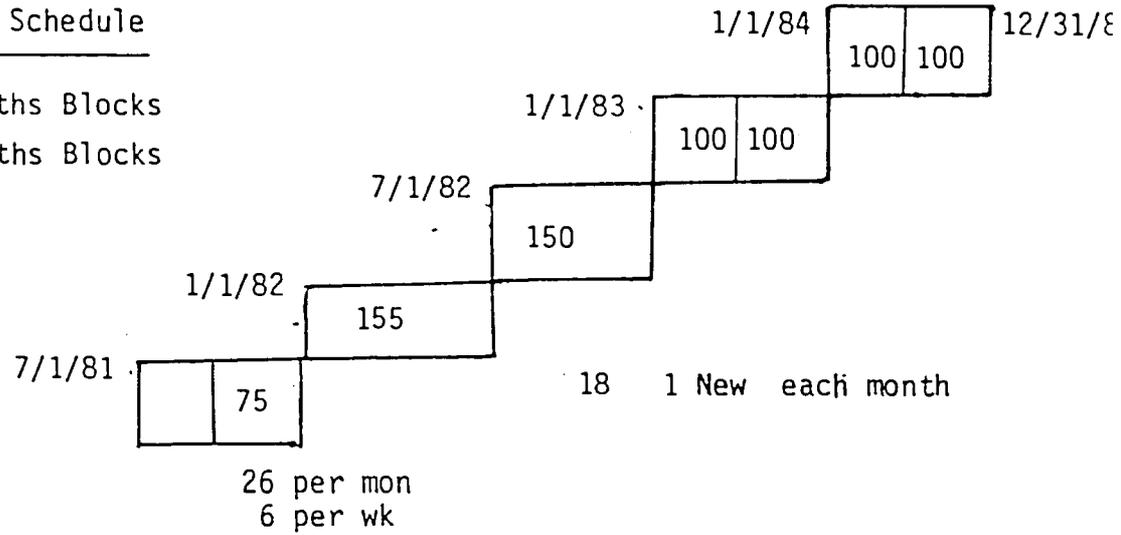
MECHANICS

- Diesel, Engines
2 - strokes
- Gasoline Engines
- Use of Special Repair
- Equipment
- Safety On-The-Job
- Hydraulic Systems
- Fuel Systems
- Brake Systems
- Electrical Systems.

4-21

Faculty, Workers, Schedule

Prelim. 3-6 months Blocks
EPTC 4-6 months Blocks



Faculty :

- 1 Exp.
- 1 AMTA 400
- 1 Trainer

4.2.3.4. The Supervisors Curriculum

In the Ports there are approximately 600 Supervisory workers and foremen. They are a key element in the ongoing activities of the Port and the productive levels attained. A chart indicating courses, staff, supervisors and schedule of training is attached.

The supervisors and foremen will be given a formal class with follow-up programs by trainers. The courses will include: Role of the Port of the nation of Egypt, Delays in Loading and Unloading, Training Workers, Use of Equipment more Efficiently, Use of Gangs more Efficiently, Cargo handling of Hazardous Materials, Safety Procedures in the Port, Role of the Supervisor and Foremen, How to deal with Problems with Workers, Rating Employees for Promotion.

About ten supervisors and foremen will be given a formal class per week to be followed by trainer input. On-the-job materials will be given to supervisors and foremen to keep them updated on procedures and techniques as well as new policies.

4.2.3.5. The Dockworkers Curriculum

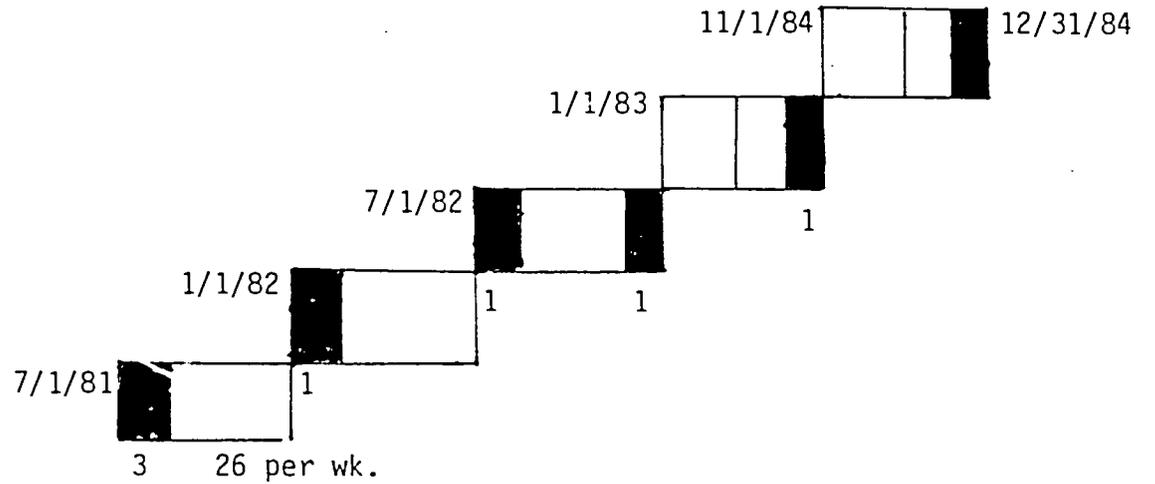
There are about 4000 Dockworkers in the Ports with about two-thirds being permanent. This labor force is in need of training that will upgrade the general skill level in working with mechanical cargo handling equipment. The need for training for Port workers should be part of the education of the dockworkers themselves. A chart is attached that outlines the courses that will be given to the Dockworkers as well as the staff who will participate and the schedule of training.

SUPERVISORS

- Delays in Loading and Unloading
- Use of Equipment more efficiently
- Use of Gangs more efficiently
- Cargo-Handling for Hazardous Materials

Faculty, Workers, Schedule

- Prelim. - 3-6 months Blocks
- EPTC - 2-6 months Blocks



4-23

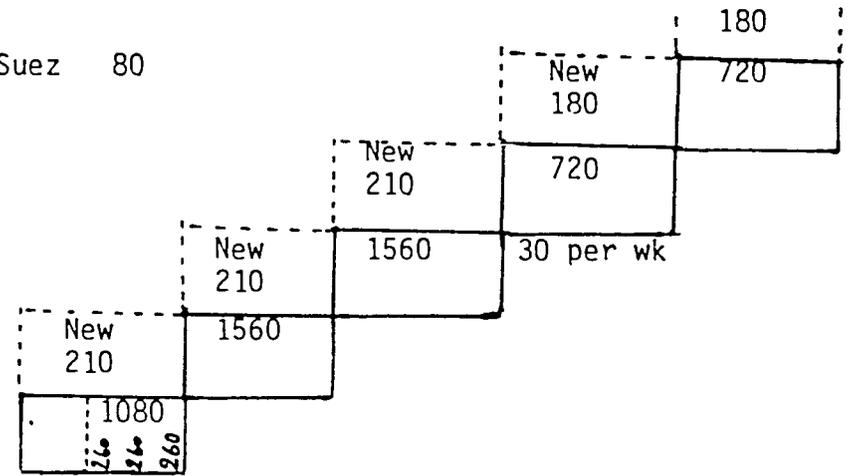
Faculty :

- AMTA - 1
- Tech. Exp. - 1

DOCK WORKERS COURSES

UASC 3595
Winch 445
Hatch 271
Foremen 37

Port Suez 80



65 perwk 3 classes 1 Formal 2 On-The-Job

On-The-Job Lessons

(New) Handling General Cargo
Handling Hazardous cargo

First Aid

Fine Prevention

Safety-Personnel

Safety-Equipment Operation

(New) Personnel matters
(Salary, Gang Hours Promotions.
Training Courses).

Role of Hatchmen

Role of Winchmen

Role of Foremen

(New) English-Signs

(New) Arabic-Signs

(Could they leapfrog seniority if they take all courses :
Perhaps 2 years to 4 years jump from category 6 to 5 normally 4 years.)

1 Exp.

2 AMTA

33

1 Trainer Coor } 1 class

2 Assistants }

1 Trainer Coor } 1 class

2 Assistants }

1 Trainer Coor } 1 class

2 Assistants }

9

New group each month

54 6 mon.
Tr.162 18 mon.

4-24

Because of the numbers of Dockworkers and the present lack of education among this group, training will need to be placed in a format that will be easily presented many times. Audio-visual materials will be designed for this purpose in slide and transparency formats along with Arabic titles.

The number enrolled in classes will be about 60 per week. There will be one formal class for each group, then two classes with Trainers on-the-job. The trainer will appoint two assistants who will help with the on-the-job education and will be given a small printed lesson guide (in Arabic).

Courses for Dockworkers in the upgrading phase will include, Handling General Cargo, Handling Hazardous Cargo, Personal Safety on-the-job, Safeguarding, Cargo Loading Equipment, Personal Promotion and Salary, English signs, Role of Hatchman, Role of Winchmen, Role of Foremen.

4.2.4 Training Materials and Equipment for Curriculum

The training equipment during the Preliminary Training Period will be drawn from resources of the Alexandria Port Authority, the United Arab Stevedoring Company and the General Warehouses of Egypt Company.

Training Equipment will be needed at the Cargo-Handling, Staging Area (Cranes, Forklifts, and Cargo Handling items) and at the Driving Concourse (Truck, Truck-Traier, Tractor).

4.2.5 Television and Equipment and Materials for the Preliminary Training Period

A. Television Equipment :

Attached is a Table detailing the costs for Television Equipment. The estimated cost for these items is \$ 109,700.

B. Audio-visual Equipment. :

Attached is a Table detailing the expense for Audio-visual Equipment. The estimated cost for these items is \$ 55,050.

C. Television and Audio-visual Components :

Attached is a Table detailing the expense for Television and Audio-visual Components.

The estimated cost for these items is \$ 22,500.

TABLE A
VIDEO REQUIREMENTS
IN DOLLARS

<u>NO.</u>	<u>ITEM DESCRIPTION</u> (Video)	<u>PRICE Ea.</u>	<u>TOTAL</u>
6	Video cassette, Recorder/Player, ½", with programmable features, commercial, VHS.	2,000	18,000
2	Video cassette, Recorder/Player, ½", with editing capability, commercial, VHS.	3,500	7,000
4	Video cassette, Recorder/Player, ½", <u>Portable</u> , programmable tuner, commercial, VHS.	2,000	8,000
4	Video camera, color, (for use with Portable VTR's), VHS, power-pak Transformer.	2,500	10,000
12	Video Monitor, color, (with jacks, commercial type, VTR's and Cameras), 19".	1,500	9,000
2	Large Screen Monitor, color, VHS, 72" screen, (for use with VTR's).	4,000	8,000
2	Duplicator, High Speed, Video cassette, ½", 3 copy positions. Tape, Video cassette, ½", 3 M Scotch Panasonic, medium quality in following amounts :	2,600	5,200
100	VHS-30, ½", Video cassette (1000 tapes), pkgs of 20	300(pkg)	30,000
25	VHS-60, ½", Video cassette (500 tapes), pkgs of 20	400(pkg)	10,000
5	VHS-120, ½", Video cassette (100 tapes), pkgs of 20.	500(pkg)	2,500
			109,700
			=====

TABLE B
PRELIMINARY TRAINING PERIOD
AUDIOVISUAL REQUIREMENTS
IN DOLLARS

<u>NO.</u>	<u>ITEM DESCRIPTION</u> (Photographic)	<u>PRICE Ea.</u>	<u>TOTAL</u>
5	a. Camera, 35 mm, Pentax Quality, single lens Reflex	500	2,500
1	b. Copy Stand, Beseler, 35m and 4 x 5 production	2,000	2,000
1	c. Copy Stand, MP-4, Polaroid W1 attachments	6,000	6,000
4	16 mm Projectors	1,500	6,000
6	Overhead Projectors, 3M	500	3,000
6	Filmstrip Projectors	300	1,800
10	Recorder, Portable, Panasonic RS-7	75	750
1	Recorder, Studio quality	1,500	1,500
2	Opaque Projector, Beseler	1,000	2,000
1	Dry Mounting Press, (New paper size)	2,500	2,500
1	3m Secretary Copy Machine (for transparency Preparation)	1,500	1,500
100	a. Transparency Paks, 100 pkg	20	2,000
100	b. Dry Mounting Tissue, Ltr, size 100pkg	20	2,000
	Audiovisual Supplies (Film, etc.)		20,000
3	Record Player.	500	1,500
			55,050

TABLE C
PRELIMINARY TRAINING PERIOD
AUDIOVISUAL COMPONENTS
IN DOLLARS

<u>NO.</u>	<u>ITEM DESCRIPTION</u>	<u>PRICE Ea.</u>	<u>TOTAL</u>
4	Movie Mover Unit, (portable screen and projector stand)	1,000	4,000
5	Screens, portable, 60"	300	1,500
5	Screens, Portable, 72"	400	2,000
8	Television Stand, VTR Cabinets, portable	1,000	8,000
10	Stand, Projection	300	3,000
1	Video cassette Cabinet (for Program Recordings)	1,500	1,500
Asst.	Television jacks and Cables		2,500
			22,500
			=====

4.3 FAILITIES AND CLASSROOM UTILIZATION

4.3.1 Plans for Utilization of Facilities

- A. To provide instruction for the period of the Preliminary Training Project use will be made of temporary facilities in three areas. Extensive research of the port area and of educational facilities of the various Companies and of the Arab Maritime Transport Academy was conducted.

Visits were made by the Consultant in conjunction with officials of the Arab Maritime Transport Academy, the Alexandria Port Authority, the General Warehouses of Egypt and the United Stevedoring Company. Several possible sites were explored for possible training sites during the Preliminary training period.

Most important in such consideration was the proximity of such sites to the student workers at the Port of Alexandria. Also another consideration was if the facility was inside the Port grounds as tight security requires special passes, etc.

- B. After much deliberation it was decided that the United Arab Stevedoring Company shop outside but immediately adjacent to the port terminal would be one of the major locations for the program. It houses shops and equipment required for courses that will be given during Preliminary Training Period. As it is an operational shop, classes and students will have to be carefully scheduled. In addition to the shops a large classroom is available equipped with room darkening blinds for audiovisual presentations and academic course work.

4.3.2 Requirements for Facilities - For Preliminary Training Period

The period from July 1, 1981 to December 31, 1982 will be a phase where instruction will be provided for the Upgrading of Ports of Egypt workers. In addition during that period, this will be the preparation of curriculum design and functions that will be reflected in the development of specifications for facilities for the Egyptian Ports Training Center, for Training Equipment and for Audiovisual Materials. The following areas have been identified for instructional purposes during this program period :

A. Classrooms :

1. United Arab Stevedoring Company at Gate 27. There is a large classroom about 12 m by 22 m that has blackout drapes for audiovisual presentation. It can be excellent for upgrading activities of Port workers because of its location.
2. Arab Maritime Transport Academy. There are classrooms available at the Miami location of the Academy. As this is some distance from the Port it will be used for classes for Supervisors, Managers and Graduate Level Personnel.

B. Workshops :

1. UASC Workshops at Gate 27. These will be excellent because of their location and the variety of areas that can be used. There are engine rebuild areas, as well as all types of equipment repair and lubrication. Also the new parts supply unit is available at the location.

2. UASC Workshops at Gate 10. Here is located a large workshop for metal working operations. Also a forklift repair facility is here as well as crane repair units. These will be used as available.
3. General Warehousing-Egypt, Repair Unit at Gate 14. While used for minor repair, at times it may be convenient to use this.
4. Alexandria Port Authority, Repair Units will be used as available.

C. Office for Administration and Faculty :

1. Director of the Egyptian Ports Training Center. Office space will be provided for the Director at the Miami Site of the Arab Maritime Transport Academy.
2. Faculty of the Egyptian Ports Training Center. Office space will be provided for the Faculty (4) at the Miami Site of the Arab Maritime Transport Academy.
3. Training Teams. An arrangement will be made with the AMTC to have a single office where these part-time faculty will be located.

D. Office of Technical Assistance Team

1. It would be desirable if the Technical Assistance Team be provided with an office by the Alexandria Port Authority, as the APA has the most desirable location for communication and access to the port and to port officials.

4.3.3 Cargo-Handling Staging Area

Adjacent to the United Arab Stevedoring Forklift Repair Center is an area that will be used as a temporary cargo-handling equipment training location, sufficient equipment is on hand for training such as Forklifts, Container Loaders, and Cranes.

4.3.4 Driving Concourse Training Area

An adequate area is available, at present, at the ABU KIR Site of the Arab Maritime Transport Academy.

Truck, Truck-Trailer and Tractor will be placed for Drivers' Training.

4.4 FACULTY FOR PRELIMINARY TRAINING PROGRAM AND JOB DESCRIPTIONS

4.4.1 Faculty for Preliminary Program

Technical Assistance Specialists, Arab Maritime Transport Academy Faculty, and Trainers from port personnel (see Figure 4.1) will constitute the Training Faculty during the Preliminary Training Period.

To provide the necessary thrust to launch the training enterprise a team of expatriate training specialists will be employed. First, a Curriculum Development Specialist who will coordinate instructional planning and activities. Second, a training specialist who will concentrate on course presentation and development in the areas of management training and port Dockworkers and supervision. Third, a training specialist who will direct attention to operator and mechanics course presentation and development. Fourth, Audiovisual Specialist.

A program manager will be employed one third time to monitor all project activities. And a specification expert will be hired for four months to prepare specifications on facilities and equipment.

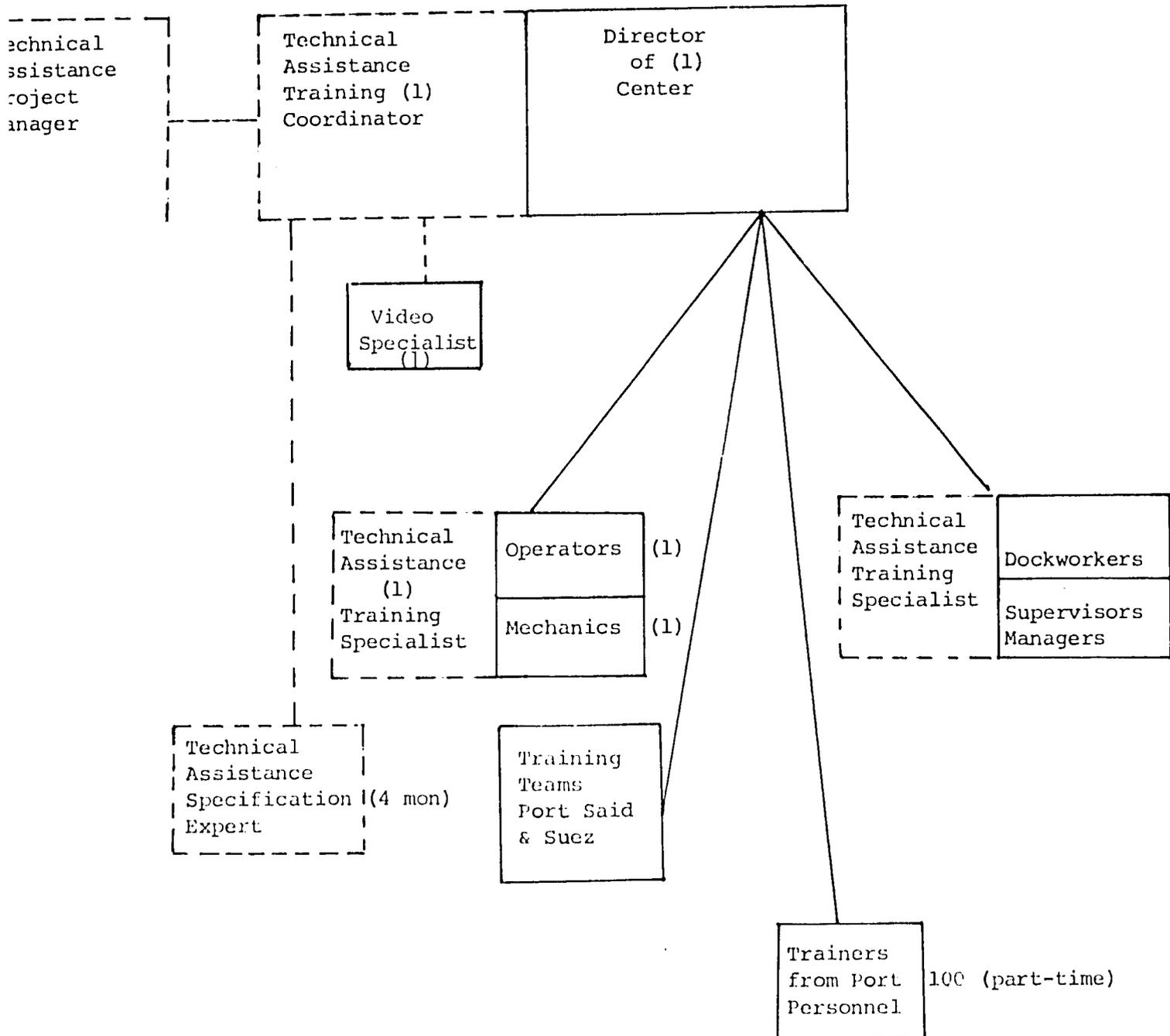
Faculty from the Arab Maritime Transport Academy will be used as required for specialized course work. Training teams will take courses and seminars to other port areas. Personnel carefully selected by UASC, APA and GWE staff will be used as On-The-Job Trainers in the Mechanical, Operator, and Dockworkers Programs.

4.4.2 Preliminary Training Organization

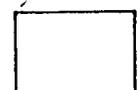
An Organizational Chart is shown on Figure 4.1 which indicates the staffing required for the Preliminary Training Period. An Organizational Chart for the Center Startup Period is shown in Section 5. Job descriptions for key personnel are contained in Appendix I.

FIGURE 4.1

PRELIMINARY TRAINING PROGRAM
(July 1, July 1981 - December 31, 1982)
EGYPTIAN PORTS TRAINING CENTER
TECHNICAL ASSISTANCE A.I.D.



 Technical Assistance A.I.D.

 Egyptian Government

4.5 ESTIMATED COST OF PRELIMINARY TRAINING PROGRAM

The cost of Consultants staff and services for the preliminary training program is estimated to be as follows:

Dollar Cost of Consultant	\$1,597,500
Egyptian Pound Cost of Consultant	LE 179,676

A detailed estimate of cost is contained in Appendix III A-1.

S E C T I O N V

PORTS OF EGYPT TRAINING CENTER STARTUP
CAREER DEVELOPMENT PROGRAM

Period: January 1, 1983 - December 1983 or 1984

SECTION V
EGYPTIAN PORTS TRAINING CENTER STARTUP

5.1 INITIATION OF THE CAREER PROGRAM OF THE CENTER

5.1.1 Preparation for the Egyptian Ports Training Center

During the Preliminary Period, specifications will have been prepared, bids let, and buildings constructed for the Center. This will include facilities at two sites, the administration-classroom component at Abou Kir (east of Alexandria and the Workshop - Staging Areas component at the Port of Alexandria site.

Also, during the Preliminary Period, the recruitment of students for the Career Development Program will have been begun. Contact will have been made with Vocational Technical Schools and Secondary Schools to notify these institutions of the possibility for the Career Apprenticeship in Ports of Egypt for young people.

At the same time during the eighteen months, there will be a concerted effort to prepare appropriate curriculum materials for the Career Development programs. These programs are described in Section 4.

Faculty for the permanent staff will have been contracted for, numbering seventeen full-time and sixteen part-time. Trainers will have been selected and trained to work with apprentices. Technical Assistance faculty will have been recruited, numbering ten full-time and one part-time, and will have been located in Alexandria.

Training equipment will have been purchased under bids and secured for use at the beginning of the Center program. Audiovisual materials will have been purchased for use at the Center.

5.1.2 Initiation of the Egyptian Ports Training Center

Beginning on January 1, 1983, the first groups of Career students should begin classes. This will involve a group of approximately one hundred and thirty students who will be enrolled in the basic curriculum of the program.

This first year of startup operations will find a concentration of Technical Assistance experts in all the major fields of the Career Development programs as well as in the Upgrading areas, and the Continuing Education efforts. They will be available to assist with the development of curriculum materials including course outlines, and lesson plans on almost a one-to-one basis with the permanent faculty.

The concept of teaching-teams will be utilized as the technical assistance faculty will be able to provide demonstration lessons, and to assist the permanent faculty with on-going class sessions.

5.1.3 Second Year of Operation of the Egyptian Ports Training Center

A Second Year of technical assistance is highly desirable. However, beginning in January, 1984 there will be a reduction of about half of the technical assistance team.

At this point, basic curriculum materials will have been used and tested. The Apprenticeship program will have been in operation for six months, and a cadre of Apprentice Advisors will have been identified.

The second class of Career students will have completed their initial program of training and will have been assigned to appropriate apprenticeship locations.

Training teams will have carried courses and seminars to the Ports of Egypt on a regular basis, so that there will be a continuous, planned effort to upgrade the workers.

5.2 RECRUITMENT AND SELECTION OF STUDENTS FOR TRAINING

5.2.1 Workers Requiring Training

- A. These are several thousands workers in the Ports of Egypt at the present time with a large group of about 12,000 in Alexandria. Recruiting activities for the Upgrading and Career Development programs of the Egyptian Ports Training Center must be undertaken.
- B. For Upgrading purposes, the entire work force at present would be eligible for training. In order to provide for training needs of such a large group, careful selection must be done in terms of goals to be achieved. This is particularly true in the Preliminary Phase Training as it is at this time that the foundations of the educational activities will be determined.

The first priority at present, is the training of the vehicle and Cargo Handling Equipment Operators, numbering about 900 which will be dealt with the Preliminary Training Period. A second group of present importance is that of the Mechanics who are involved in repairing

equipment numbering about 500.

A third group of current importance is that of Foremen and Supervisors numbering about 600. Finally, there are the dockworkers with a force of about 4000. These groups will be given an initial training program during the Preliminary Period and then will participate in on-going Inservice Training when the Egyptian Ports Training Center begins.

- C. The Career Development Program will include the recruitment of the graduates of Vocational Technical Schools, and the Secondary Schools. Other experienced workers may enter the program as well.

5.2.2 Selection Criteria for Career Development Program and Upgrading Activities

- A. It is suggested that the following criteria be operable in the selection of students for the Career Development Program:
 1. Age, at least 16 years of age.
 2. Sex, young men and women in categories to be decided by the training faculty will be admitted.
 3. Education, a diploma from a vocational technical school 3 or 5 years or a secondary school (3 years)
 4. Physical Examination
 5. Interview
 6. Completed the National Service Requirement
 7. Commitment to three years of Service in the Ports upon receipt of Port Workers Certificate
- B. For Upgrading activities, programs beginning with the Egyptian Port Training Center will be designed to channel all personnel into the Career Development network.

This will make it possible for dockworkers, operators, foremen, mechanics and general equipment workers to enter and receive the proper certification. Years and type of experience will be equated with courses taught during the apprenticeship year. Also, a planned program of continuous sequenced training will be devised for Port personnel to raise the quality of Port production.

- D. Special Diploma Programs will be available for the needs of supervisors for upgrading in areas of personnel communication and Port Programs.
- E. At the Graduate Level, courses will be designed for the Managers and high level Administrators including Directors dealing with current and long term development in the field of Port Operations.

5.3 FACULTY PROGRAM STUDENT OUTPUT AND SCHEDULE

5.3.1 Proposed Faculty Plan and Schedule

1. Egyptian Ports Training Center would begin on January 1, 1983 and technical assistance should be provided for 2 years with a reduction of about half the experts during the second year.

1. Administration and Faculty

- a. Director, Egyptian Ports Training Center
Appointed by Director Arab Maritime
Transport Academy. Immediately below
the Director of AMTA in Administrative
functioning.

- b. Administrative Assistant to Director
Functions as Chief Aid for Director and is in charge of the Ports Research Program and the Library Media Center.
- c. Dean Career Development Programs Division
Directs Faculty and Programs in which Certificates are granted: Operators, Dockworkers, Mechanics and Equipment Workers. Also directs junior and senior level programs.
- d. Dean, Inservice and Upgrading Programs.
Directs programs of upgrading of Port Workers including Operators, Mechanics, Dockworkers, Managers and Supervisors.
- e. Permanent Faculty as follows:
 - (1) Eight assigned to Career Development Programs
 - (2) Nine assigned to Inservice Upgrading Program
- f. Trainers (100) Graduates of Trainer Training
(20) instructors; 80 apprentice trainers on-the-job
- g. Technical Assistance Team (full-time - 1 part time)
 - (1) Project Administrator (1/4 time) 1/3
 - (2) Instructional Director and Curriculum Specialist (1)
 - (3) Training Specialist in Mechanics and Technical Areas (3)
 - (4) Training Specialist in Container Operations (1)
 - (5) Training Specialist for Vehicle Equipment Operations (2)
 - (6) Training Specialist in Dockworkers and Stevedoring (2)
 - (7) Library Media Specialist (1)
 - (8) Port Management and Operations Specialist (1)

2. Training Team for the Ports of Egypt

Four teams of AMTA Faculty on a part-time basis will present courses at Port Said and Port Suez and Red Sea Ports. These teams will be made up depending on the type of configuration desired. This will be the result of conferences with the Directors of the Port Authorities of Port Said and the Red Sea Ports.

3. Egyptian Ports Training Program Objective

The Egyptian Ports Training Center will be a training school of major stature designed to serve the needs of the nation of Egypt, and its Ports in establishing programs to train career oriented young people in Ports employment, upgrade permanent labor force and provide graduate level programs of planning and Port Operations for Ports Specialists and Administrators.

4. Program Emphasis

In addition to providing a means for the training and upgrading of existing personnel in the ports, the Egyptian Ports Training Center Program should provide the following:

- a. A Career Development Program for young people 16 years of age or older who are graduates of vocational technical or secondary schools that will include an apprenticeship and two years of on-the-job training and one year of course instruction. Certificates will be available as Operators, Career Dockworkers, Cargo Equipment Mechanics, Electricians and General Equipment Trainers, Administration Specialists (clerks, secretaries). Career development will include

an apprenticeship of junior level I and II, senior levels I, II and graduate levels I and II.

- b. A diploma program for Foremen, Supervisors, Technicians, Engineers who desire to upgrade their specialities and enlarge their background.
- c. An awards program for Managers, Directors and Administrators which would provide an opportunity for such personnel to keep themselves up to date on the latest Management techniques and planning and operations technology.

5. Schedule of Programs

1. The period of operation for this program will be two calendar years. January 1, 1983 to December 31, 1983. Technical Assistance will cease on this date.
2. Beginning on January 1, 1985, the complete operation and funding of the Egyptian Ports Training Center would be under the direction of the Egyptian Government.

5.3.2 Estimated Student Output

The output of trainees of the Egyptian Ports Training Center on a yearly basis for 1983 and 1984 is shown on the following page.

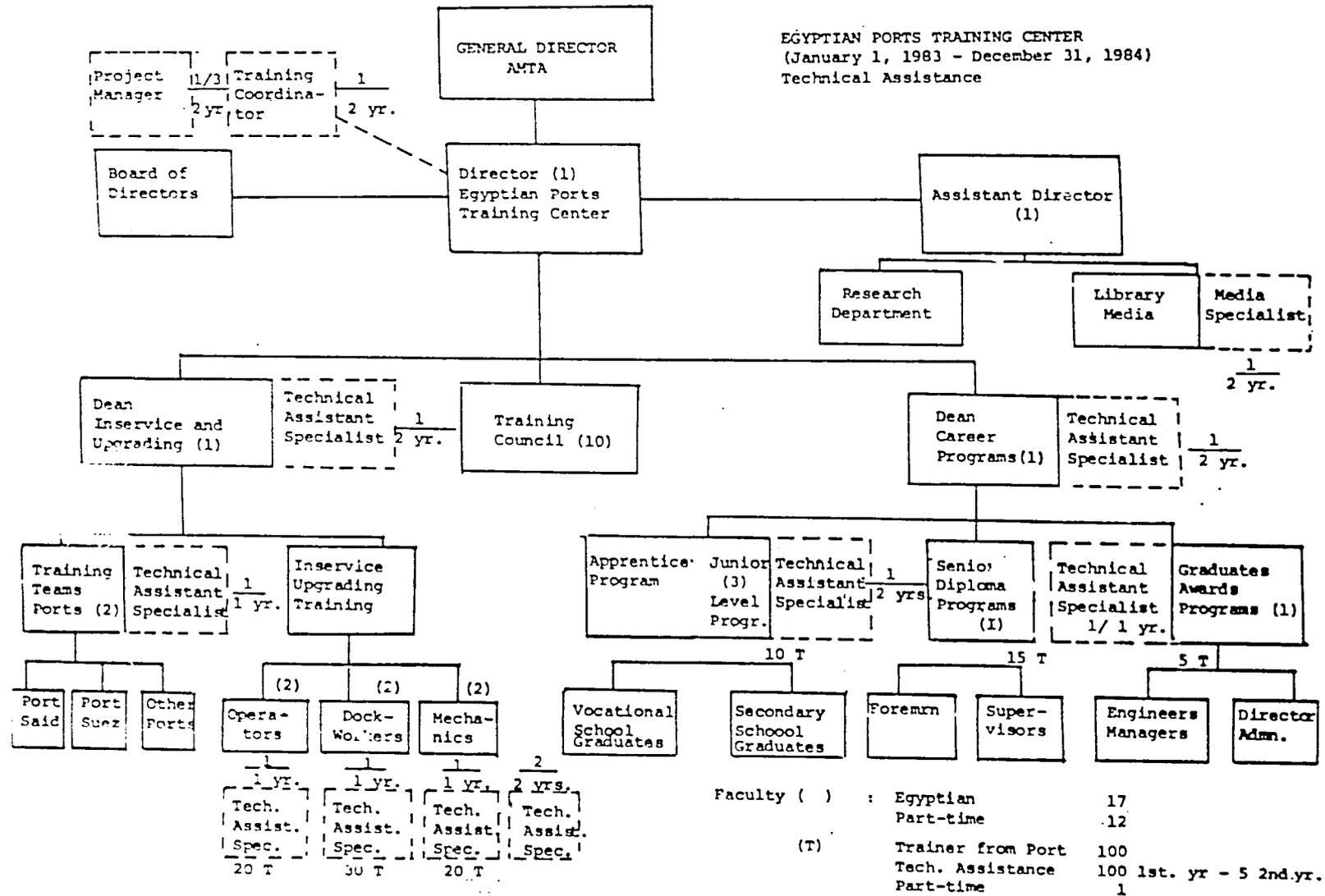
5.4 ORGANIZATION OF THE TRAINING CENTER

An Organizational Chart follows which indicates the staffing required in terms of Permanent Faculty (17 full-time), Technical Assistance Faculty (10 full-time, 1 part-time), Training Team (16 part-time), Trainers (100 part-time). Job Description of key personnel are contained in Appendix 1.

OUTPUT OF TRAINEES
EGYPTIAN PORTS TRAINING CENTER

1983 & 1984

	<u>1983</u>	<u>1984</u>	
Career Development Program, Junior Level			
a. Operators	60	60	
b. Mechanics & Equipment Workers	60	60	
c. Dockworkers	80	80	
d. Administrative Workers	<u>60</u>	<u>60</u>	
	260	260	480
2. Senior Level (5 courses minimum)			
a. Advanced Operators	30	30	
b. Advanced Mechanics	30	30	
c. Advanced Dockworkers	30	30	
d. Advanced Administrative Workers	<u>30</u>	<u>30</u>	
	120	120	240
3. Graduate Level (2 courses minimum)			
a. Supervisors, Engineers	100	100	
b. Managers, Directors	<u>50</u>	<u>50</u>	
	150	150	300
4. Trainers	100	100	200
5. Upgrading			
a. Vehicle Operators	240	240	
b. Mechanics & Equipment Workers	360	360	
c. Dockworkers	1,200	1,200	
d. Administrative Workers	600	600	
e. Training Teams (Ports)	<u>360</u>	<u>360</u>	
	2,760	2,760	<u>5,520</u>
			6,740



5.5 CURRICULA OF THE EGYPTIAN PORTS TRAINING CENTER

5.5.1 Structure of the Training Curriculum

For the program of the Egyptian Ports Training Center, the curriculum will provide two educational tracks, one for Career Development leading to Training Certificated Personnel and two for the Upgrading and Inservice Development of Ports workers.

Both areas will be significant for Ports planning and development for a period of ten to fifteen years. As the workers become trained in the present workforce and are retired or enter the Career Development Channel, this phase will diminish in emphasis but certainly not in its necessary continuation.

Attention is directed to the following Egyptian Ports Training Program Schedule. It should be noted that courses will be in Arabic and English or other languages used only where appropriate.

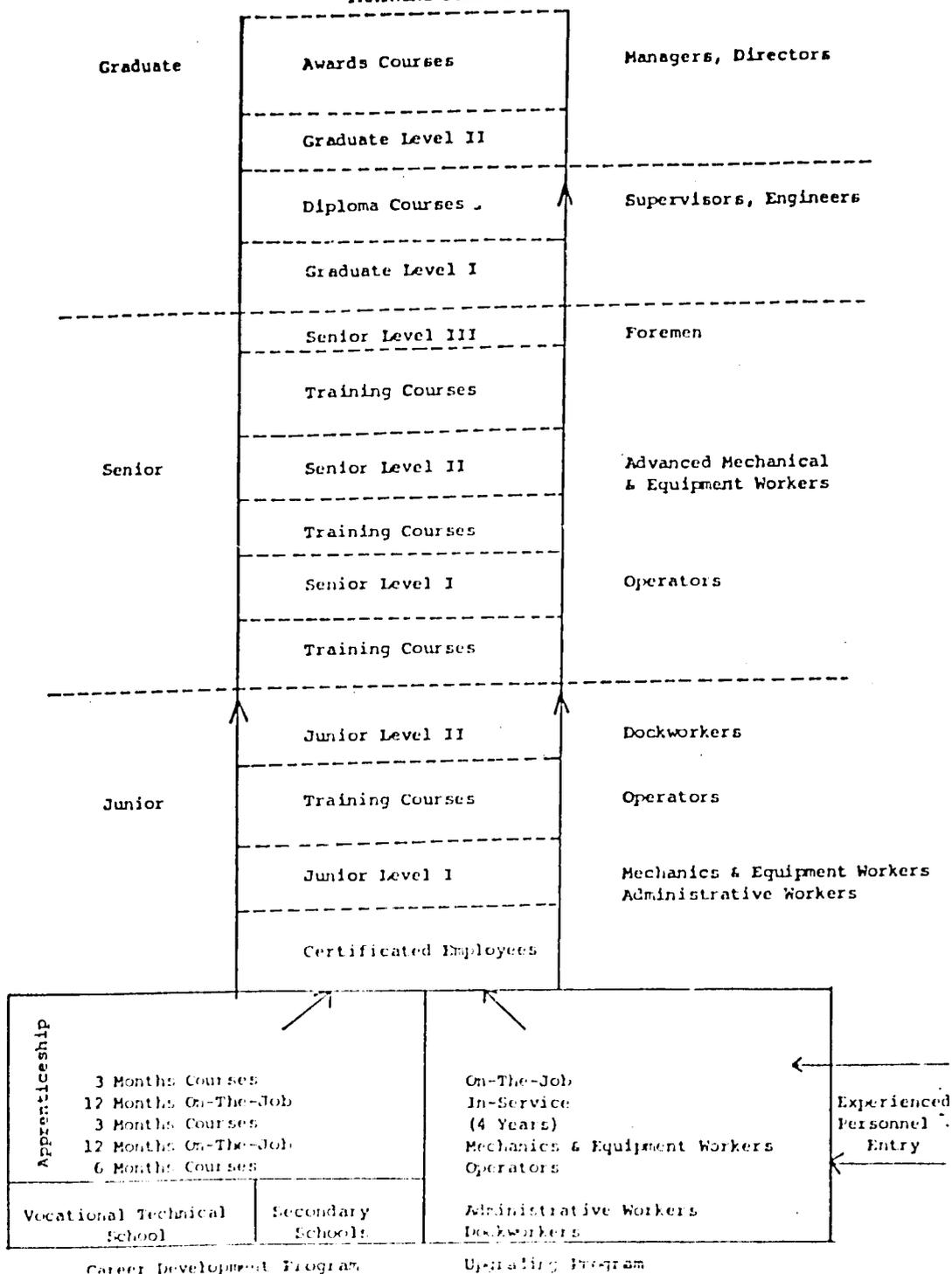
5.5.2 Apprenticeship Program

With the commencement of the Egyptian Ports Training Center at end of the Preliminary Training Period, an analysis of pertinent jobs will have been accomplished for the categories of workers in the Ports and Performance Objectives developed. Significant on-the-job activity and training will be well under way.

- a. In the Career Development area an Apprenticeship approach will be created for the new Career employees which will include formal courses, individualized instruction activities, and on-the-job training.

EGYPTIAN PORTS TRAINING CENTER

TRAINING PROGRAM



Apprenticeship will be important in providing a career path for unskilled workers in entry-level positions. These will be the graduates of vocational technical schools and secondary schools. This will in turn facilitate the retention of younger workers in the Port and thus will improve the continuity of employment in the Port. In addition, apprenticeship will upgrade the skills and operation of the present work programs of the Ports and it should have a direct effect on Port productivity.

A listing of formal classroom courses will be prepared for the Apprentices including the amount of hours required in each area of skill instruction. Attached course lesson plans will then be prepared outlining in detail all aspects taken up, including the time involved. Careful records will be kept of the Apprentices who are in the program including their classes and other activities.

- b. In addition to Apprenticeship for Career Employees there will be additional stages during their tenure with the Ports where refresher courses will be required for promotion up the employment ladder. There are three major areas of Career Development. The Junior with 2 levels incorporating the Apprenticeship, the Senior including 3 levels of specialization areas such as Operators Training on unique equipment, training for foremen, mechanics and equipment technicians, and the Graduate including 2 levels, the Diploma for Supervision and Engineers and the Awards level for Managerial Directors. The flow of career development programs is shown hereafter.

CAREER DEVELOPMENT PROGRAM

Apprenticeship

Dockworkers and Operators

General Workers and Mechanics

Admin. Workers and Supervisors

Common Core - 1st Three Months

(Classes four days a week
Field Trips and On-The-Job Activities - one day per week
Three hours of class daily; Three hours of laboratory daily
Twelve Credits in the Common Core)

Courses:

- | | |
|---|------------------|
| 1. History and Present Role of the Ports of Egypt | 4 credits |
| 2. Communications and Human Relations | 2 credits |
| 3. Applied English in Port Programs | 2 credits |
| 4. Humanities and the Fine Arts | 2 credits |
| 5. Port Organization and Development | <u>2</u> credits |
| <u>Total</u> | 12 credits |

Specialization - 2nd Three Months
12 credits

Dockworkers and Operators	General Worker and Mechanics	Admin. Workers and Supervisors
1. General Cargo Hand & Break Bulk 2 cr.	1. Vehicles in the Port 2 cr.	1. Port Operations & Control 2 cr.
2. Bulk Cargo 2 cr.	2. Cargo Handling Equipment 2 cr.	2. Port Planning 2 cr.
3. Hazardous Cargo 2 cr.	3. Warehousing 2 cr.	3. Finance & Account. System 2 cr.
4. Safety - Personal & General 2 cr.	4. Repair of Vehicles 2 cr.	4. Personnel Dept. Operation 2 cr.
5. Role of the Cargo Team 2 cr.	5. Repair of General Equipment 2 cr.	5. Supplies & Mater. Control 2 cr.
6. Cargo Handling Equip. Use 2 cr.	6. Diesel & Gasoline Engines 2 cr.	6. New Administrative Systems 2 cr.

CAREER DEVELOPMENT PROGRAM

Apprenticeship

On-The-Job Training 12 months

Each apprentice will be assigned to a position in one of three areas: Dockworking; General Working; or Administrative Working jobs. The individual will be working with a designated Apprentice Advisor. The Apprentice Advisor (Trainer) will have been trained to assist the student in the development of the necessary skills in the area.

It will be the responsibility of the Apprentice Advisor to introduce the apprentice to the skills involved in the job, to evaluate the performance of the apprentice, to confer at regular intervals with the apprentice to indicate the progress of the apprentice to meet with the Apprenticeship Director at regular periods to indicate the progress of the apprentice.

Records will be kept by the apprentice of involvement in each of the designated skill activities in the area with a listing of the hours of participation. These will be made available to the Apprentice Advisor and to the Apprenticeship Director, as required.

Specialization - Three Months 12 credits

Dockworkers and Operators	General Workers and Mechanics	Admin. Workers and Supervisors
1. Cargo Handling Gear 2 cr.	1. Safety on the Job 2 cr.	1. Port Workers & Admin. 2 cr.
2. Foremen & the Gang 2 cr.	2. Control of Dangerous Substances 2 cr.	2. Planning as a Function of Mgt. 2 cr.
3. New Techniques of Cargo Hand. 2 cr.	3. Electrical credits 2 cr.	3. Advanced Accounting cr.
4. Increasing Produc. on Docks 2 cr.	4. Fuel Systems 2 cr.	4. Business Machines 2 cr.
5. Equip. Operation 2 cr.	5. Hydraulic Systems 2 cr.	5. Office Organization 2 cr.
6. Containerization 2 cr.	6. Vehicle Body Care 2 cr.	
12 cr.	12 cr.	12 cr.

CAREER DEVELOPMENT PROGRAM

Apprenticeship

On-The-Job Training Second Period 12 Months

Apprentices will now be placed in a second type of position relative to their first On-The-Job program. This will be to develop to the fullest their potential skill development.

Each Apprentice will be assigned to a position in one of three areas: Dockworking; General Workers; or Administrative Workers.. The Individual will be working with a designated Apprentice Advisor. The Apprentice Advisor (Trainer) will have been trained to assist the student in the development of the necessary skills in the area.

It will be the responsibility of the Apprentice Advisor to introduce the apprentice to the skills involved in the job, to evaluate the performance of the apprentice, to confer at regular intervals with the apprentice to indicate the progress of the apprentice; to meet with the Apprenticeship Director at regular intervals to indicate the progress of the apprentice.

Records will be kept by the apprentice of involvement in each of the designated skill activities in the area with a listing of the hours of participation. These will be available to Advisors as required.

CAREER DEVELOPMENT PROGRAM
Apprenticeship

Area Selection*and Specialization
2nd Period - 3 Months - 12 credits

Dockworkers	Operators	Mechanics	General Workers	Adm. Workers	Supervisors
1. Dockworkers & the Pts. 2 cr.	1. Oper. & The Ports 4 cr.	1. Mechanics & The Ports 4 cr.	1. Gen. Workers & the Ports 4 cr.	1. Adm. Workers & the Ports 4 cr.	1. Supv. & The Ports 4 cr.
2. Supervision of Cargo H. Gangs 4 cr.	2. Repair and Maintenance Activities. 4 cr.	2. Major Repair Programs 4 cr.	2. Organization of Work Activities. 4 cr.	2. Efficiency in Administration 4 cr.	2. Communications and Workers. 4 cr.
3. Mechanization of Cargo Handling 4 cr.	3. New Developments in Vehicles & Equipment 4 cr.	3. Repair of New Mechanical Systems 4 cr.	3. New Programs effecting Port Workers 4 cr.	3. New Adm. Develop. Such as EDP 4 cr.	3. Management by Objectives & New Prog. 4 cr.
————— 12 cr.	————— 12 cr.	————— 12 cr.	————— 12 cr.	————— 12 cr.	————— 12 cr.

*Apprentices at this point in the Career Development Program, will select an area in which they will be examined for Certification.

CAREER DEVELOPMENT PROGRAM

Apprenticeship

Evaluation and Certification

Apprentices will stand for examinations of the theoretical knowledge that they have obtained during the three year period.

Also, there will be examinations of applied knowledge with demonstrations by the Apprentice that each skill demanded in the occupation is known and applicable by the apprentice.

Where applicable, examinations of practical work will be conducted in an On-The-Job site so that the conditions are normal to the work performed.

A Port Workers Certificate will be given to the Apprentice. This will provide the individual with a position and will at the same time eliminate one year of the standard requirement for advancement up the National Employment ladder.

Individualized instruction will be emphasized as much as is feasible in specialized areas for Career Development workers. For these purposes, programmed instruction modes and self instruction units will be prepared as appropriate by the Training Coordinator. The Learning Center in the Library will be equipped with VTRs (Video tape recorders) and programs on videotape that can be played as desired by the worker. This approach will give the workers-students an opportunity to select learning options in the program.

- c. Upgrading programs will be built upon the courses established in the Preliminary Training Period. Workers who are in mid career will be placed on the Career Development scale by means of an assessment of their background. The type and quality of their experience will be equated with course requirements.

5.5.3 Training Curricula for the Egyptian Port Training Center Following The Preliminary Period

- A. With the beginning of the new Center, career-oriented students will be recruited for an apprenticeship program designed to provide high calibre personnel for the Ports of Egypt. (The program will feature both formal classroom instruction and on-the-job training). These potential port workers will meet the following criteria:
 - 1. Age, at least 16 years of age.
 - 2. Sex, young men and women in categories to be decided by the training faculty will be admitted.

3. Education, a diploma from a vocational technical school 3 or 5 years or a secondary school (3 years).
 4. Physical Examination.
 5. Interview.
 6. Completed the National Service Requirement.
 7. Commitment of three years of Service in the Ports upon receipt of Port Workers Certificate.
- B. The Junior Level will include the Apprenticeship period of three years, Junior Level I of 3 years and Junior Level II of 2 years. At the end of eight years, the individual would be at the fourth stage of the Government's salary classification system. The Apprenticeship period will start with six months of formal course work and will include approximately 6000 hours of classwork, and on-the-job training and work. These courses will be prepared to provide the potential career port worker with substantial knowledge of Ports. Workers and Career possibilities in this area. Incorporated in this phase will be field trips to highlight aspects of instruction. Guest "lecturers" from the Port will provide expert knowledge for the students.

Videotapes will be prepared of significant ladder leading to the Graduate Level.

The ordinary structure of classes will be 3 hours of instruction and 3 hours of laboratory work for each program day for a six day week. Coursework will include the following: The Apprenticeship and its goals, the Role of the Ports in the Nation's Economy, the Industries of Egypt, Export

Products of Egypt, Import Products of Egypt. Other general topics related to the Ports and their operation will be introduced. Courses relating to effective Personnel skills will be included: Communicating with others and applied Psychology; Courses from the Humanities and the Arts; and courses dealing with the specifics of Port Operations and Cargo Handling.

At the end of six months, the apprentice will be assigned in one of four areas based on his classroom performance and personnel choice: Dockworkers, Operators, Mechanical Technical, or Administrative. An Apprenticeship Advisor will be chosen for the student. This individual will guide the student during the next year and provide on-the-job instruction in different phases of the work. One half day per week the Apprentice will spend at the Apprenticeship Center checking on materials for the program and reporting on progress.

The Apprentice will then return for three months of course work. This period will deal with specific skill areas required for the job area selected. For example, an Apprentice operator will be given courses dealing with preventive maintenance techniques, trouble shooting the equipment and so on. This will be related to Laboratory work in the Demonstration

Workshop. The Apprentice will then be assigned to a different skill area from the one previously assigned for another year. An Apprentice Advisor will assist with the program. This will be on-the-job Training with one half day per week at the Apprentice Center. The final education sequence for the Apprentice will be for three months of intensive work on a specialty selected by the student and his Advisor.

At the end of the Apprentice Period, a test will be given. If successful, the individual will be given a Certificate permitting him to be given full employment status in the Port Work Force.

- C. The Upgrading track will be available for those individuals who are currently in the work force but have no vocational technical diploma. This will involve four years at which then they will be given an examination based on their experience and participation in on-the-job coursework.

5.5.4 Training Curricula for Senior Level Courses

The Senior Level Courses will be composed of specialized instruction of short duration of one to several class periods, depending upon the speciality involved. Three levels are involved of 3, 3 and 2 years , respectively leading to the third Government level of seniority. Successful completion of 24 credits will be equated with one year on the Seniority scale for advancement.

Course work will be designed to sharpen the skills of employees who are experienced in the Port program. For operators, the individuals will be given experience in several types of vehicular or general equipment.

The Training Team of the Egyptian Port Training Center will be involved in presenting these courses to groups in Port Said, Port Suez and the Red Sea Ports Seminars and special programs will be designed to meet local needs.

5.5.5 Training Curricula for Graduate Level Program

- A. Graduate level programs will be highly specialized courses for the Port leadership. The Diploma Program is primarily for advanced personnel such as Supervisors and Superintendents. These courses will include the following Role and Responsibilities of a Supervisor; Work Planning and Scheduling, Delegation of Work, Communication Skills, Interviewing Candidates for jobs, Employee Training, Performance Rating, Safety in the Port, Port Policies, Relations with workers, Grievance Procedures.

The training team for the Ports will be prepared to take these courses to locations desired in Egypt.

- B. Award Programs. This area will include Programs for Port Managers, Administrators and Directors. Courses will include Management Theory, Decision Making, Port Operations, Cargo Handling Methods, Break-Bulk Cargo, Containers and Ro-Ro, Electronic Data Processing, Warehousing and Storage, Customs Operations, Port Security, Port Construction and Maintenance, Port Finance, Maritime Law, Personnel Management.

The Ports Training team will schedule the advanced programs for high level groups in the Ports of Egypt.

5.6 TRAINING TEAMS FOR THE PORTS OF EGYPT

As part of the Egyptian Ports Training Center program to provide instruction for Port personnel at any point in Egypt, special training teams will be created with the establishment of the Preliminary Program and continued by the Training Center.

These teams will be made up of 3 to 4 Faculty who will have different types of expertise. Depending on the team they will be able to provide courses for dockworkers or for Port Directors.

A schedule will be established to carry out instructional duties in the various Ports consistent with the needs of each Port Career Port Workers will be sent to the Egyptian Port Training Center for formal classes but on-the-job aspects from these individuals will be at their home port.

5.7 MASTER TRAINING GUIDE

Attached is a flow chart illustrating the patterns of curriculum designed for the Egyptian Port Training Center. These are two main educational tracks: career development and upgrading or inservice programs.

Entry level normally will be in the future through an Apprenticeship program. Experienced people who meet the requirements may enter at any point in the sequence.

There are four major levels: Apprenticeship and Upgrading areas of three to four years, Junior level I for 3 years, and Junior Level II for two years; Senior Level I, 3 years; Senior Level II, 3 years, Senior Level III, 2 years; Senior Level programs will be for specialization as well as broadening of an individual capabilities. Graduate Level I, 6 years and Graduate Level II for 2 years, Graduate Level Courses will be for those involved in Planning Port Development and Administration.

5.8 REQUIREMENTS FOR TRAINING EQUIPMENT AND MATERIALS FOR THE CURRICULUM

5.8.1 Training Equipment

- A. There will be different sites requiring items of Training Equipment, the Demonstration Workshop will house the following areas and equipment:
 - 1. Electrical Systems Circuit boards and testing units
 - 2. Hydraulic Systems: Working Models of Hydraulic Units used in Vehicular and general equipment
 - 3. Diesel Engines: Demonstration Models of Diesel Engines including units in Ports
 - 4. Gasoline Engines: Demonstration Models of Gasoline Engines including Units in Ports.
 - 5. Cargo Handling Gear Slings, working models of cranes, buckets, cargo units, containers
 - 6. Winches and Hoists: Working models demonstrating principle of leverage
 - 7. Cargo: Models and samples of cargo materials that must be handled, with illustrations.
 - 8. Marlin Splice Area: Rope and cable handling for the docks
 - 9. Safety Systems: Control of fire and hazardous substances

- B. Workshop Repair Training Center will house the following areas and Equipment
 - 1. Welding: gas and arc welding units of the most modern type with facilities for repair of materials.
 - 2. Machine Tools: Machine tool units of high calibration for metal working

3. Transmission: Equipment for repair of transmissions
4. Gasoline Engine Repair: Units for major repair of engines
5. Diesel Engine Repair: Equipment for major repair of engines
6. Body Repair: Mechanics for repair of equipment bodies
7. Lubrication Appliances for Lubrication of Mechanical Equipment
8. Electrical Repair: Equipment for repair of electrical units
9. Hydraulic and Brake Repair: Equipment to maintain hydraulic and brake systems

C. Driving Concourse: The following Training equipment will be needed at the Driving Concourse:

1. Truck, flat bed
2. Truck -Trailer unit
3. Tow Tractor
4. Truck Pickup
5. Dump Truck

D. Cargo Handling Stacking Area. The following equipment will be needed at the Cargo Handling Stacking Area:

1. Crane 40 Ton, Hydraulic Swinger
2. Crane, Truck 75 Ton
3. Forklift, 3 Ton
4. Container Forklift Handler, 35 Ton
5. 20' Container Chassis
6. 40' Container Chassis
7. 20' Container Spreader
8. 40' Container Spreader
9. Model Hold for Use of Forklifts
10. Assorted Items: Slings, Buckets, etc.

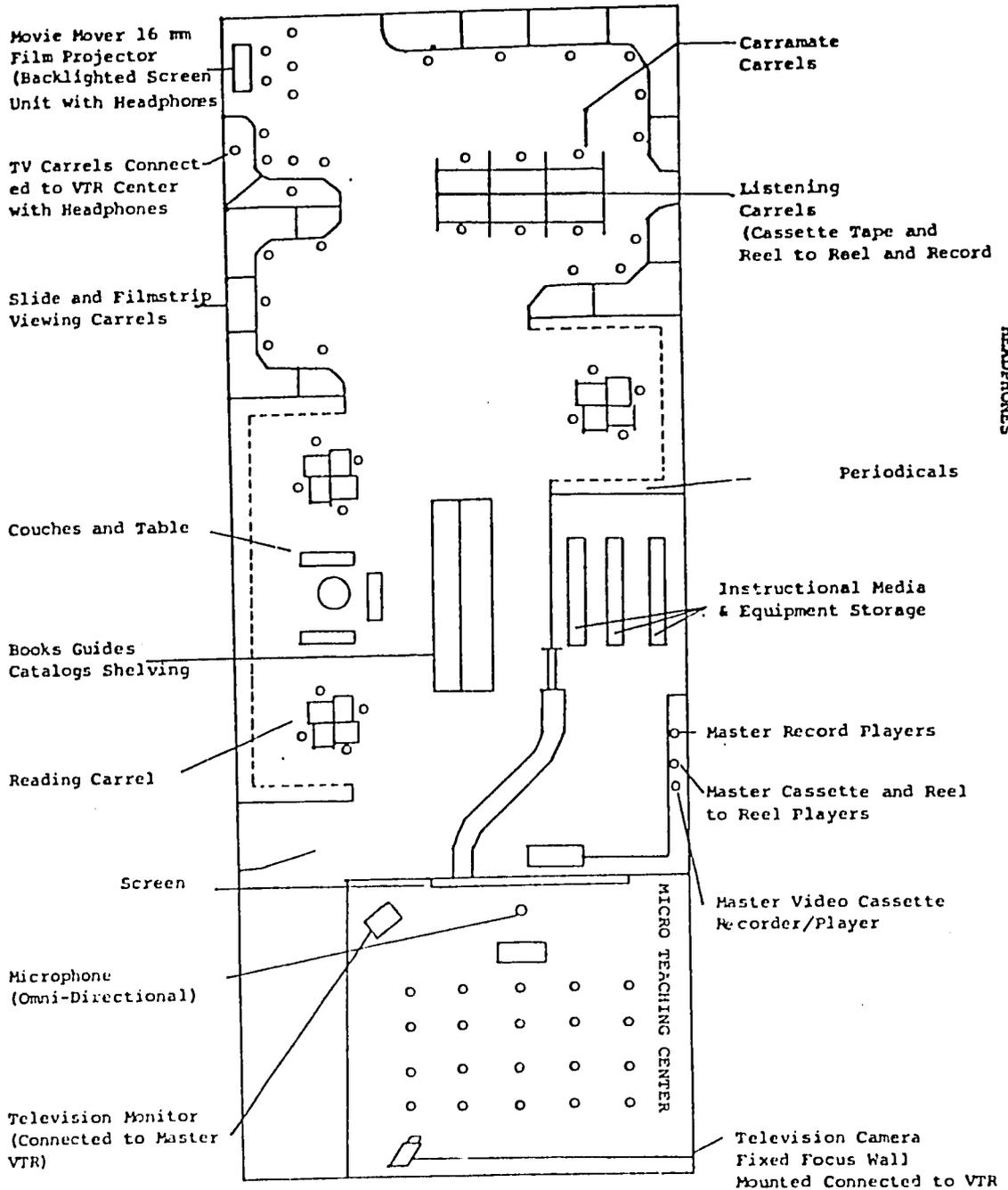
- E. The Training Equipment will be used for preparation of students in Upgrading skills and in the Career Development Programs of the Egyptian Ports Training Center.

5.8.2 Audiovisual Materials and Equipment for the Training Center

- A. Audiovisual Equipment will be of prime importance to the instructional program in several areas. The Library Media Center will include the following: (Illustration follows)
 1. Carramate Carrols
 2. Listening Carrols including Cassette tape and Record Terminals with Headphones
 3. Periodicals on Ports and other Subjects
 4. Instructional Media and Equipment Storage
 5. Master Record player
 6. Master Cassette and Reel to Reel Tape Players
 7. Master Video Cassette Record/Player
 8. Movie-Mover 16 mm film projector
 9. Backlighted screen unit with headphones
 10. Television Carrols connected with VTR Center with Headphones
 11. Slides and Filmstrip Viewing Carrols
 12. Book Guides and Shelving

- B. The Micro-teaching Center will include a fixed focus Television Camera, and Television Monitor. It will permit a demonstration to be made at any time, and for the Videotaping of the Demonstration. Then there can be immediate replay or storage of the lesson for later use by students or faculty.

**EGYPTIAN PORTS TRAINING CENTER
LIBRARY MEDIA COMPLEX**



C. Portable television cassette units. At least two of these units will be on hand. These units will be used to record any demonstration activity in the Ports of Egypt for use in the Classrooms. Also planned programs or activities of the Ports can be placed on Videocassette for later use.

These units will be taken to the Driving Concourse and to Cargo Handling Staging Areas to be used film student work.

5.8.3 Text and Reference Curricula Materials

It will be important for the Port Center to have an up-to-date collection of periodicals, references, works and research materials dealing with Ports, Ports Operation and Vocational and Technical Fields.

As the Egyptian Ports Training Center evolves it will become a prime location for Research Activities of the Ports of Egypt and for this part of the world. Therefore attention should be given to building up an extensive collection of research documents from world-wide sources.

These should be basic collections on Port Operations, Curriculum Guides from major Vocational Technical Schools and Ports Training Schools, Training Materials from all Major Equipment Manufacturers, Files on Curriculum Study and Research materials.

5.9 REQUIREMENTS FOR FACILITIES AND SITE FOR THE EGYPTIAN PORTS TRAINING CENTER

5.9.1 Requirements for Facilities

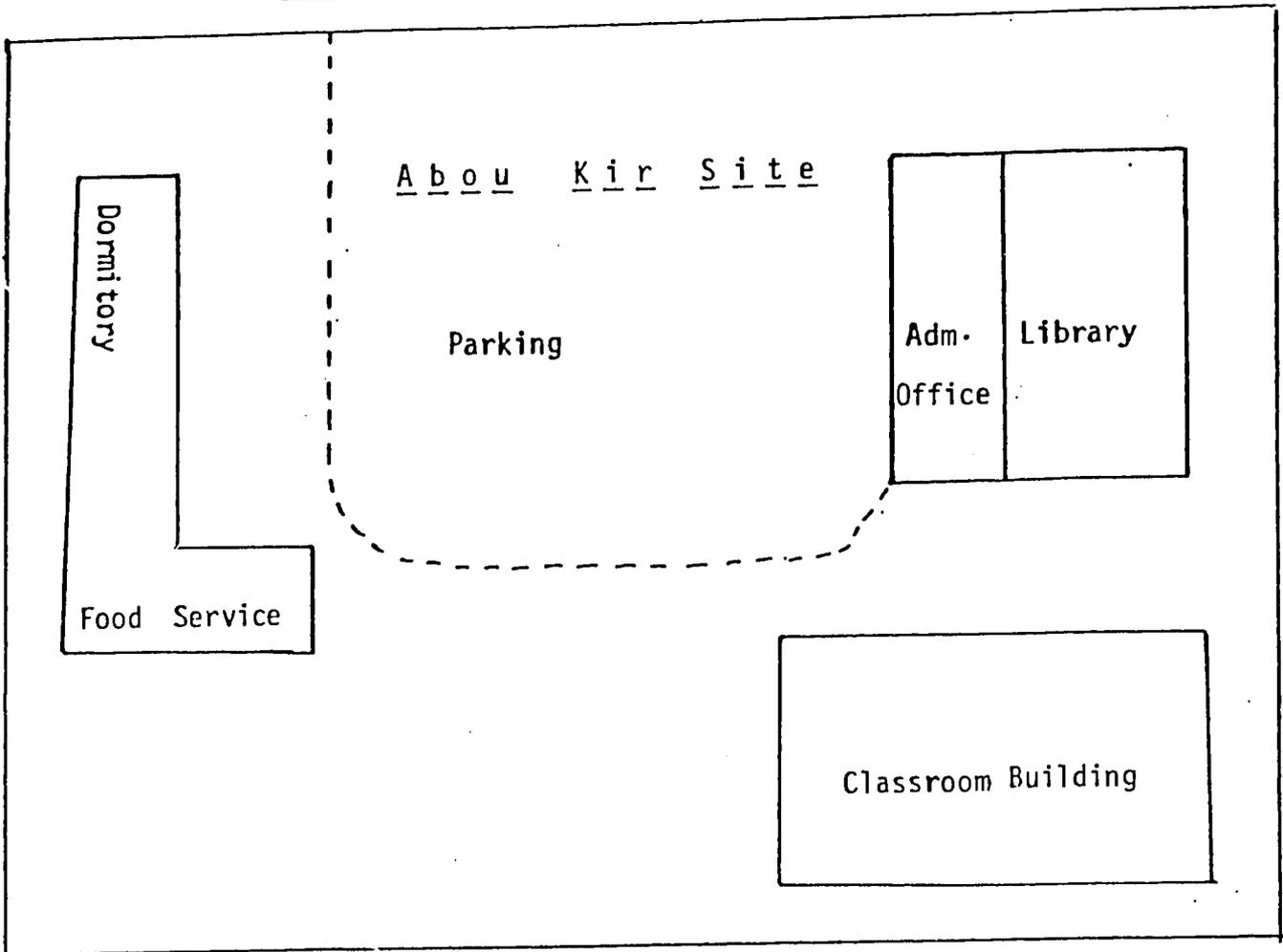
The Center will begin on January 1, 1983 and will extend for a two-year period to December 31, 1984. During the Preliminary Period (July 1, 1981 - December 31, 1982) specifications will have been written for the facilities, call for bids prepared contracts signed, and facilities erected. Specifications will have been prepared for the Training Equipment and with bids and purchases made. This will apply to Audiovisual Materials and Equipment as well as to basic Reference Materials, Texts and Curriculum materials as needed. The facilities that will be constructed (either Pre-fabricated or regular construction) should be as shown on the attached facilities and site plans.

5.9.1.1 Site and Facility Plans

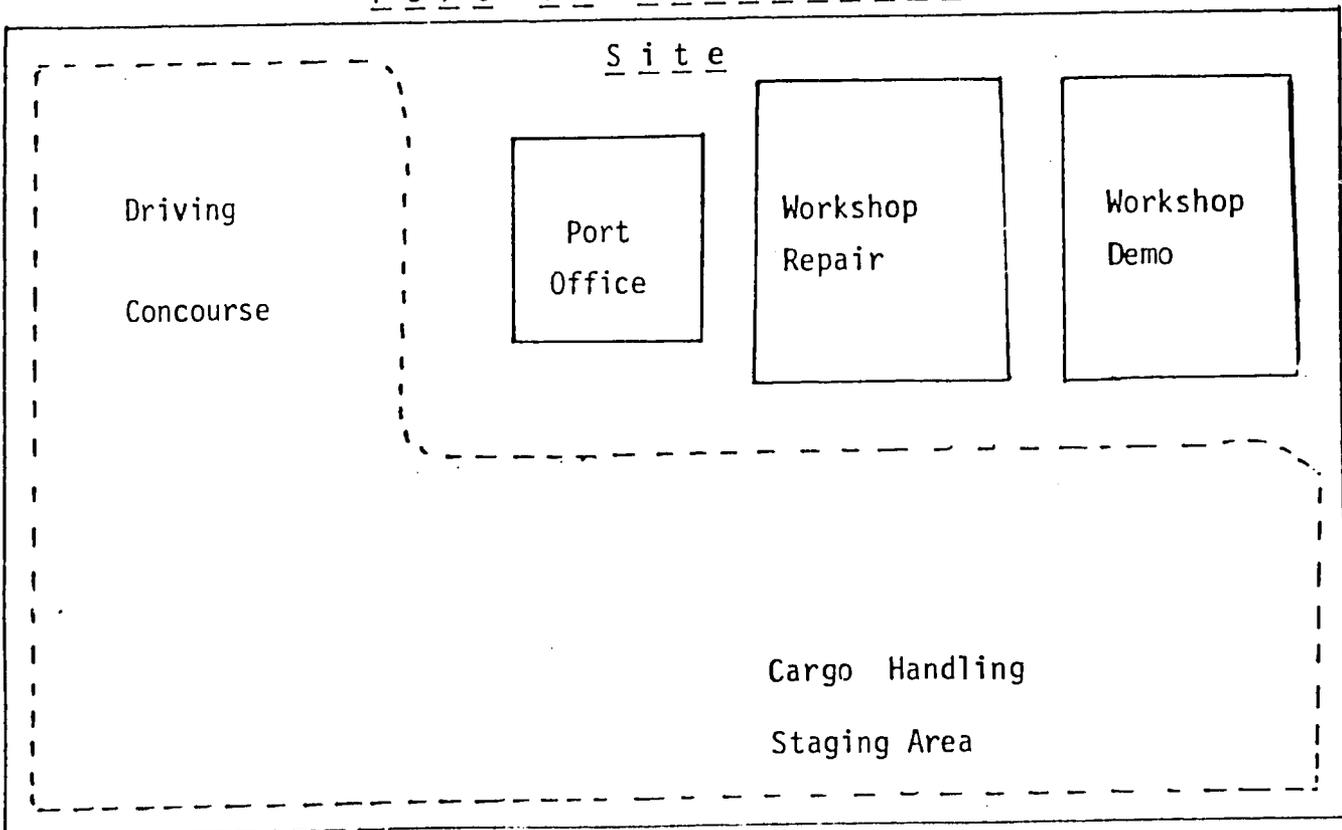
A site plan for the campus follows. The components are designed so that they may be placed in two locations, one at the Port on a site contributed by the Alexandria Port Authority and a site at Abou Kir contributed by the Arab Maritime Transport Academy.

- a. Administrative Office and Library Media Center
 - (1) The office of the Director and Assistant Director will be placed here.
 - (2) The Librarian Media Specialist will operate the Library on Port Operations and maintain the Audiovisual resources.
- b. Classroom- Faculty Office Building
 - (1) Three classrooms that will hold up to 30 students each.
 - (2) One assembly room that will hold up to 60 students.
 - (3) Offices for 10 faculty.

EGYPTIAN PORTS TRAINING CENTER



P o r t o f A l e x a n d r i a

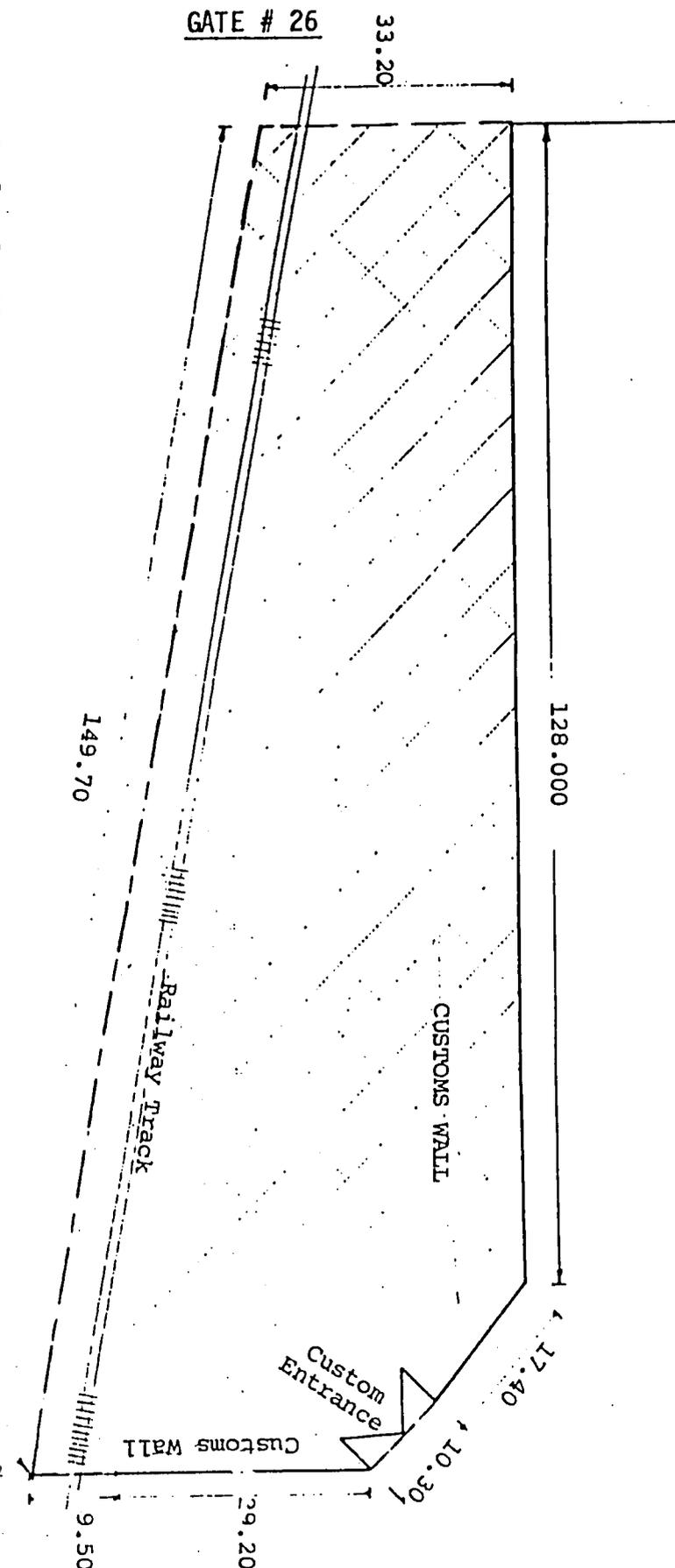


EGYPTIAN PORTS TRAINING CENTER

SITE PORT

GATE # 26

Scale: 1:400 meters



- c. Demonstration Workshop Building
Areas will be provided for Training Models for Operators, Dockworkers, Mechanics and Technicians. A classroom for 30 students will be included.
- d. Teaching Repair Workshop Building
 - (a) Various skill-training equipment will be available.
 - (b) A classroom for 30 students will be included.
- e. Office Center Building. This will be located at the Port complex with the workshops.
- f. Driving Concourse Area
This will be an area for the training of operators of trucks, truck-trailers, cars and dump trucks. The necessary equipment for training will be included.
- g. Cargo Handling Staging Area
This will be an area for the training of operators of forklifts, container loaders, cranes and cargo loading equipment of all types.

WORKSHOP DEMONSTRATION CENTER

Electrical	Hydraulics Brakes	Diesel Engine	Gasoline Engine	Cargo Handling Gear
Classroom 50	40 Fire Safety	Marlin Splice Area	Cargos	Winches Hoists

WORKSHOP REPAIR TRAINING CENTER

Welding	Machine Tool	Transmissions	Engine Repair Gasoline	Engine Repair Diesel
Classroom 50	40 Brakes	Electrical	Lubrication	Body Repair

5.9.2 Classroom Office Building

This unit will consist of:

- A. The medium size classroom designed for formal class instruction. They will have blackout curtains, projection screens, and a Television Monitor (color) permanently installed. Each classroom will be tied in by cable with the Master VTR studio in the Library-Media Building. Also outputs will be provided so that Video Cassette Player can be used.
- B. Classroom-Meeting Hall. This room will have a projection screen, blackout curtains, and a permanently installed Television Monitor (color). It will be able to seat approximately sixty people for large group presentations.
- C. Faculty Office. There are ten units included that will be separated by dividers so as to conserve space. There will be a small Faculty Conference room in this area.

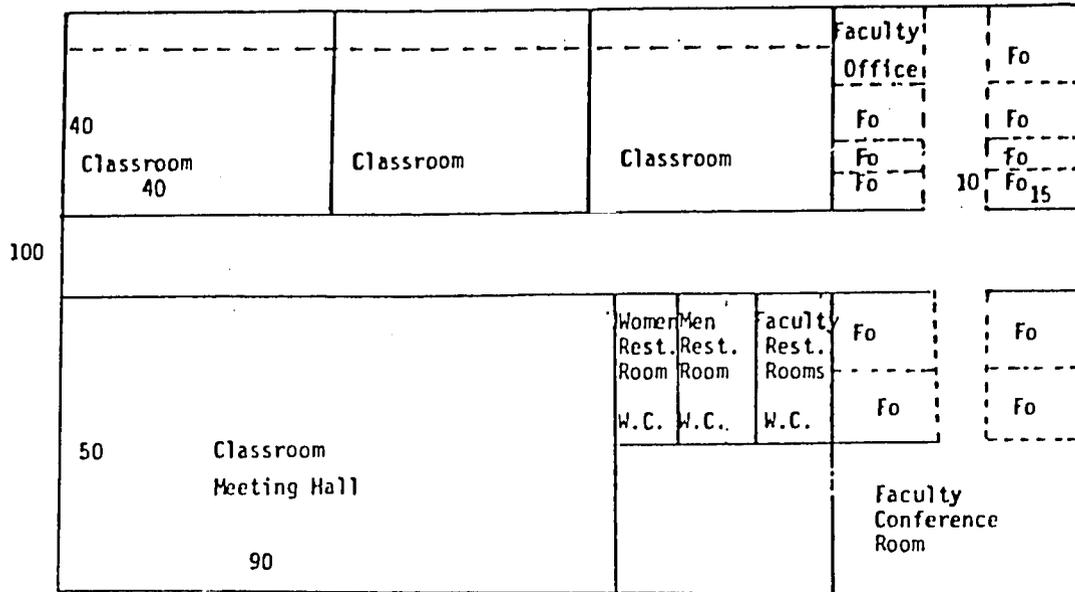
5.9.3 Workshop Demonstration Center

This unit will have the following areas in place separated by high dividers to provide a sound and visual barrier.

- A. Electrical Systems
- B. Hydraulic Systems
- C. Diesel Engines
- D. Gasoline Engines
- E. Cargo Handling Gear
- F. Winches and Hoists
- G. Cargo Units
- H. Rope and Cable Handling
- I. Safety Systems

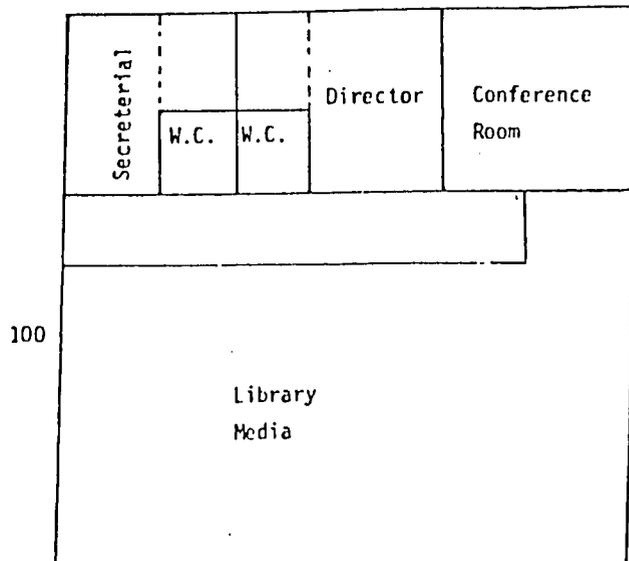
CLASSROOM FACULTY OFFICE BUILDING

160



ADMINISTRATIVE LIBRARY BUILDING

100



A classroom larger than usual size will provide space for storage of specialized demonstration items and materials. Black-out drapes, a projection screen, and a Television Monitor (color) will be permanently installed.

Lighting will be of adequate provision so that precise work can be demonstrated on each of the Demonstration Units. Air movement units will be required in this building.

5.9.4 Workshop Repair Training Center

This unit will have work areas separated by sound and light barriers as follows:

- A. Welding
- B. Metal Working
- C. Transmissions and Power Trains
- D. Gasoline Engine Repair
- E. Diesel Engine Repair
- F. Body Repair
- G. Lubrication
- H. Electrical Repair
- I. Hydraulic Repair

A classroom of larger than average size will have a permanently installed television Monitor (color) a projection screen, and black-out drapes. It will have adequate storage for instructional supplies and equipment.

5.9.5 Administrative Office Library Media Center

This unit will include the following areas:

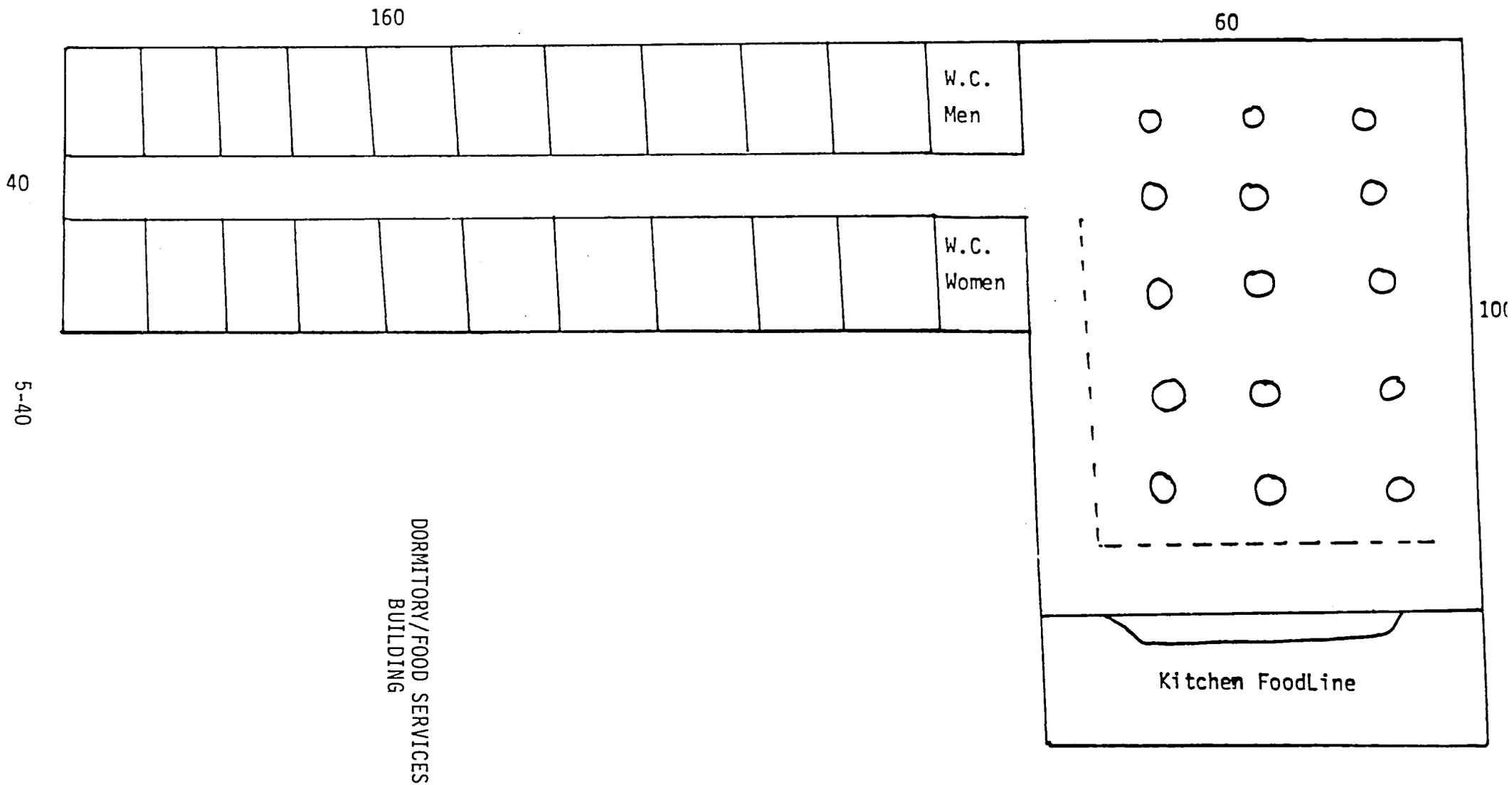
- A. Offices-Administrative. The Director of the Egyptian Ports Training Center will be located here with his assistant and secretarial workers. There will be a conference room for meetings of officials and faculty.
- B. Library Media Center (See detailed drawing attached). This unit will be an important center for both students and faculty. Also it will provide an area for research activities.
 1. Library Unit- Periodicals, Port Reference Works and Port Training Materials will be included in a collection that will provide information for Research activities. The Library Reading Self Instruction Room will include carrols with basic audiovisuals units.
 2. Microteaching Unit. This will be used for recording and playback on Video cassette of teaching demonstrations as well as student activities.

5.9.6 Dormitory-Food Service Unit

This unit would be of much assistance for specific Egyptian Ports Training Center Activities. Particularly for Work-shops Seminars and high level meetings of a few days duration this would be effective. It would consist of:

- a. Dormitory Unit. This would be in motel style with twenty rooms that could house up to 40 people.
- b. Food Service Unit. This would be designed to provide food service for 60 people at one time.

Dormitory - Food Service Building



5.9.7 Plans for Utilization of Facilities and Sites

A. Site in the Port Area (See 5.9.1.1)

An excellent site has been provided by Alexandria Port Authority for the main location of the Egyptian Ports Training Center. It is located near Gate 27 of the Port directly in the middle of Port activities, adjacent to the main workshop of the United Arab Stevedoring Company. It will be convenient for on-the-job training activities. There are no competing structures in the area. In addition it will be close to the new Container Terminal. There are approximately 2400 square meters available. Located here will be a small office of Apprentice Center, the two workshops, the Cargo Handling Staging Area(and if sufficient area is provided, the Driving Concourse).

The site is just outside the Port boundaries. This will be most advantageous as security requirements would restrict severely any program if the unit was in the Port, the site is located on a drawing of the Port attached. The Workshop Complex will be devoted to upgrading functions as well as Career Development and Inservice Programs.

B. Site at Abou Kir

The Arab Maritime Transport Academy has set aside a large area designated as the Egyptian Ports Training Center. This will be completely separated from the Academy functions.

As this site will be located the office of the Director of the Center, his Assistant and Secretarial workers. In addition, the Library Media Center will be located here. The classroom building will be at the site as well. An area map in outline indicates the location of Abou Kir and the Port of Alexandria. The Port is approximately 30 km from Abou Kir.

It is anticipated that for formal classroom activities the students will be bused to the Abou Kir location on a regular basis for upgrading activities. Housing is available here for career development students as well. Port Research Activities will be in a part of goals for this site.

- C. Site for Driving Concourse. This will be at the Workshop Complex if sufficient area is provided, or at Abou Kir. There will need to be a fence around the area as well as a small building and the necessary Training Equipment. As this equipment will require security precautions, it must be located in a secure area.

5.10 ESTIMATED COST OF PORTS OF EGYPT START UP ASSISTANCE

The cost of consultants staff and services, and for facilities and equipment obtained under a foreign assistance procurement loan is estimated to be as follows:

Dollar Cost of Consultant	\$3,168,000
Egyptian Pound Cost of Consultant LE	309,170
Facilities and Equipment Procurement Loan	\$3,235,000

A detailed estimate of cost is contained in Appendix III A-2.

A P P E N D I X I

JOB DESCRIPTIONS

- A1 - For Preliminary Training Program
- A2 - For Training Center Startup Program

APPENDIX I
JOB DESCRIPTIONS FOR
PORTS OF EGYPT TRAINING CENTER PROGRAM

IA1. JOB DESCRIPTIONS FOR PRELIMINARY TRAINING PROGRAM

(See Section 4)

A. Job Descriptions of Permanent Administration and Faculty

1. Director, Egyptian Ports Training Center

This individual will be in direct charge of the Egyptian Ports Training Center programs. He should have experience in Port activities and knowledge of the maritime industry. He should have had high level professional administrative experience and academic training. He should exhibit leadership qualities of the highest order.

The Job Description will include the following:

- (a) Planning the expansion of the program to full startup operations and then for continued Center Development into the future.
- (b) Administering the Faculty and Staff programs or recruitment, selection, assignment, promotions and salaries.
- (c) Budgeting for costs of the programs including securing necessary funds for operation and allocating funds to programs.
- (d) Developing the curricula programs including Apprenticeship, Career Development, Junior-Senior-Graduate Programs and Upgrading Programs.
- (e) Student recruitment Programs
- (f) Development of Relationships with Agencies contributing to the operation of the Center.
- (g) Serving as Secretary of the Board of Directors and keeping the Board informed of Center Programs.

- (h) Providing leadership for the Training Council in establishing Center policies and programs.
2. Job Description of Faculty Member dealing with Operators Training. This individual will be responsible for Training and Teaching Courses for Port Equipment Operators. He must have experience in working with Dockworkers and in the Ports also. He must be involved in Operators Training previously and if possible have educational background in this field. This individual should have at least a Masters Degree or higher.

The Job Description will include the following:

- (a) Working with the Director and Technical Assistance Counterpart in developing courses for the Operators of Port Equipment.
 - (b) Teaching courses dealing with the training of Operators of Port Equipment. (At certain times, when the Technical Assistance Expert does Demonstration Teaching, he will serve as Interpreter.
 - (c) Sharing in the development of teaching resources for use such as Training Modules, self instruction units, visual aids, video cassette demonstrations in Training Operators.
 - (d) Serving an appropriate Committee as requested dealing with Center Training Programs.
 - (e) Providing for Laboratory period supervision and instruction.
3. Job Description of Permanent Faculty Member dealing with Mechanics and General Equipment Workers. This individual

will be responsible for Training and Teaching courses for Mechanics and General Equipment Workers. He must have experience in working with Mechanics as well as General Equipment Workers and in the Ports field. Also, he must be involved in Mechanics and General Equipment Workers Training previously, and if possible, have an educational and vocational training background in these areas. He should have a Master's Degree or higher.

The Job Description will include the following:

- (a) Working with the Director, and Technical Assistance Counterpart in developing courses for the Mechanics, and General Equipment workers of the Ports.
- (b) Teaching Courses dealing with the Training of Mechanics and General Equipment Workers. At certain times, when the Technical Assistance expert does demonstration teaching, he will serve as Interpreter.
- (c) Sharing in the Development of Teaching of Resource such as Teaching Modules, Self Instruction Units, Visual Aids, Video Cassette Demonstration.
- (d) Providing for Laboratory and Demonstration Period Supervision and Instruction.
- (e) Developing Course Outlines, Lesson Plans, Demonstration Units and course instruction guides for students.
- (f) Assisting selection of appropriate texts for instruction as well as other curriculum materials.
- (g) Serving on Committees as requested concerning the Center Program.

4. Job Description of Permanent Faculty Member dealing with Dockworkers Training. This individual will be responsible

for Training and Teaching Courses for Dockworkers. He must have experience in working with Dockworkers and also in the Ports field. Also, he must have been involved in some phase of Dockworkers Training previously. It would be desirable if he would have an educational background in this area. He should have a Master's Degree or higher.

The Job Description will include the following:

- (a) Working with the Director and Technical Assistance Counterpart in developing courses for the Dockworkers of the Ports.
- (b) Teaching Courses dealing with the Training of Dockworkers. At certain times, when the Technical Assistance expert does demonstration teaching, he will serve as Interpreter.
- (c) Assisting in the development of Teaching Resources such as Teaching Modules (competency-based) Self-Instruction Units, Visual Aids, Video Cassette Demonstrations.
- (d) Providing for Laboratory and Demonstration Period Instruction and Supervision.
- (e) Developing Course Outlines, Lesson Plans, Demonstration Units and course instructional guides for students.
- (f) Assist in the selection of texts and other curriculum materials for instruction.
- (g) Serving on committees as requested concerning the Center Program.

5. Job Description of Permanent Faculty Member dealing with Training of Port Supervisors, Port Superintendents,

Port Managers and Port Directors. This individual will be responsible for Training and teaching courses for Supervising and Management Personnel of the Ports including the Administrative Workers. He must have experience in working with Port Supervisors and Port Management as well as in the Ports field. Also, he must be involved in Port Supervisory and Port Management Training previously, and if possible have an educational background in these areas. He should have a Doctoral Degree in the field.

The Job Description will include the following:

- (a) Working with the Director, and the Technical Assistance Counterpart in developing courses for Supervisors, Superintendents, Managers and Port Directors.
- (b) Developing Course Outlines, Lesson Plans, Demonstration Units and Course Instructional Guides for Students.
- (c) Assisting in the Development of Teaching resource such as Teaching Modules (competency-based), Self-Instruction Units, Visual Aids, Video Cessette Demonstrations.
- (d) Teaching Courses dealing with the Training of Supervisors, Superintendents, Managers, Directors and other Administrative Workers. At certain times when the Technical Assistance Counterpart does demonstration teaching, he will serve as Interpreter.
- (e) Providing for instruction in Laboratory and Demonstration Periods.
- (f) Assisting in the selection of texts and other curriculum materials for instruction.

(g) Serving on committees as requested concerning the Center Program.

B. Job Description (Role) of Members of the Training Council

A Training Council membership will be selected from Egyptian organizations sponsoring the workers who will be training. The membership will be approximately ten members. They will provide the Preliminary Program with expertise of great value, that will be utilized on a part-time basis. These will generally be Division leaders and supervisors who know the Port Operators intimately, as well as the labor force.

The Role of the Training Council (and members) will be as follows:

1. Determine areas of greatest need for Training of Port Workers.
2. Assist the Director in the recruitment of students for the Training Program.
3. Provide assistance in obtaining Training Materials and Equipment available in their organizations.
4. Serve in a teaching capacity (part-time) where needed.
5. Plan for long-term training programs of the Center.

C. Job Descriptions of Egyptian Training Teams

These individuals will work with the Training Center Program: Operators, Mechanics and General Equipment Workers, Dockworkers, Supervisors and Managers. The following criteria will apply to their assignment and Job Descriptions.

1. The teams will be four in number, established by careful

- review of educational training as well as work backgrounds,
2. The teams will be so structured that the complete range of training needs will be an available resource for selection.
 3. Each team will be composed of three to four members, depending upon their assignment and the teaching programs that are desired.
 4. The assignment of faculty to the Training Teams will be part-time. This is desired so that there will be a rotating pool of expertise upon which to draw depending on the teaching needs of the moment.
 5. The Training Teams will serve the following functions:
 - (a) Prepare course outlines, lesson plans and related teaching materials for course assignments.
 - (b) Develop resource materials as needed such as competency-based units, self instruction modules and other educational materials that may be used by an itinerant teacher.
 - (c) Teach at the locations assigned during the hours available to the student population of Port Workers.
 - (d) Serve as program analysts for the Ports as called upon by the appropriate administrators to assist in Port program development.
 - (e) Work with Port Officials and Training Officers to do limited manpower studies to determine training needs.

D. Job Descriptions of Resident Technical Assistance Personnel
(Excludes Project Director and Home Office Administrator)

1. Job Description of Instructional Coordinator and Curriculum Specialist. This individual will work to coordinate the instructional planning and teaching activities of the technical assistance group in working with the Center Director. He should have a Doctoral Degree in Educational Administration,

and have overseas experience in developing Training Programs and Centers.

The Job Description will include:

- (a) Counterpart of the Egyptian Ports Training Center Director to advise as needed on overall development and operation of the Center.
 - (b) Act as instructional coordinator of the technical assistance team and will be in direct charge of program activities as they relate to instructional matters.
 - (c) Provide planning expertise for the Center Development in the areas of administration, planning and development faculty and staff recruitment and financial matters.
 - (d) Prepare with the assistance of both technical assistance personnel and permanent faculty, the curriculum design and structure for the Training Program of the Center.
 - (e) Teach those programs that relate to Training including the development of Course Outlines, Lesson Plans, and related materials.
2. Teaching Specialist - Port Operators and Mechanics fields. This individual will provide expertise for Training of Port Cargo-Handling Equipment Operators and also Mechanics and General Equipment Workers. He must have experience in working with Operators of Port Equipment and Mechanics and General Equipment Workers. Also, he should have had previous experience in instruction in these fields, and also in actually teaching in these areas of the Ports.

The Job Description will include the following:

- (a) Working with the Permanent Faculty of the EPTC who are assigned to Operators and Mechanics Training and assisting them in course preparation and related matters.
- (b) Assisting the Technical Assistance Instructional Coordinator in Center Program development as required.
- (c) Developing Course Outlines, Lesson Plans, Demonstration Units, and Center course materials as needed.
- (d) Assisting in the development of teaching resources such as Teaching Modules (Competency-Based), Self-Instruction Units, Visual Aids, and Video-cassette Demonstrations.
- (e) Demonstration teaching of courses along with the counterparts in the fields of Operators and Mechanics training. This individual will serve as a Demonstration Teacher in a course at certain times. The permanent faculty member will be assigned to do the teaching job for the course and will serve as an interpreter for the Technical Assistance expert as needed.
- (f) Assisting the permanent faculty with planning Laboratory activities and Demonstrations.
- (g) Advising on the selection of Curriculum materials for the Center such as texts, guides, references and course materials.
- (h) Serving on the Technical Assistance Committee as requested and on other committees as assigned.

3. Job Description of Teaching Specialist -- Port Management
Port Supervisors and Dockworkers.

This individual will provide expertise for training in the areas of Port Dockworkers (Laborers, Hatchmen, Winchmen, Foremen), Port Supervisors and Superintendents, Managers, Directors, and other Administrative workers. He must have

experience in working with Port Dockworkers, Port Supervisors, and Port Administrative personnel. He should have experience in the instruction of personnel in these fields, and he should have had long experience in the management of Port Dockworkers and Administrative personnel.

The Job Description will include the following:

- a. Working with the permanent faculty of the EPTC who are assigned to Dockworkers, Supervisors, and Administrative personnel training, and assisting them in course preparation and related matters.
- b. Assisting the Instructional Coordinator in Center Program development as required.
- c. Developing course outlines, lesson plans, demonstration units, and other course materials as needed.
- d. Assisting in the development of teaching resources such as teaching modules (competency based), self-instruction units, visual aids, video cassette demonstrations.
- e. Demonstration teaching of courses along with the counterparts in the fields of Dockworkers, Supervisors and Administrative workers. This will be teaching as a demonstration teacher in a course at certain times. The Permanent Faculty member will be assigned to do the teaching job for the course and will serve as interpreter for the technical assistance expert as needed.
- f. Assisting the Permanent Faculty members with planning and guiding laboratory activities and demonstrations.
- g. Advising on the selection of curriculum materials for the Center such as texts, guides, reference and course materials.
- h. Serving on the Technical Assistance Committee as requested by the Instructional Coordinator and on other committees as assigned.

4. Job Descriptions of Specifications Expert

This individual will provide expertise in the preparation of specifications for Port Training programs. He must have had experience in preparing specifications on both prefabricated and regular construction, preferably on Training Centers in the Ports field. He must be knowledgeable about training equipment and audiovisual materials, and previous experience in Maintenance training or material control.

The Job Description will include the following activities:

- a. Working with the Instructional Director and the Technical Assistance Committee and to carry out the plans for the Egyptian Ports Training Center.
- b. Preparing specifications for the following buildings and their furnishings:
 - (1) Administrative - Library Media Center
 - (2) Classroom - Faculty Office Building
 - (3) Demonstration Workshop and Classroom Building
 - (4) Teaching Repair Workshop and Classroom Building
 - (5) Office - Apprentice Center
 - (6) Dormitory - Food Service Building
- c. Preparing specifications for preparation of
 - (1) Driving Concourse Area
 - (2) Cargo Staging Area
- d. Preparing specifications for Training Equipment:
 - (1) Truck
 - (2) Truck-Trailer
 - (3) Tractor
 - (4) Dump Truck
 - (5) Fork Lifts, 3 and 5 Ton
 - (6) Container Loader
 - (7) Crane, 20 Ton
 - (8) Assorted Cargo Handling Materials
- e. Preparing specifications for Audiovisual Equipment and Materials
 - (1) Audiovisual Equipment for all Center Instructional Areas
 - (2) Library-Media Center equipment
 - (3) Micro Teaching (Television Equipment)
- f. Supervised and assist in Permanent Site development

5. Job Description of Audiovisual Specialist.

This individual will provide expertise to record and process television video cassettes as well as other audiovisual materials. He should have experience in audiovisual laboratory. He should have a Master Degree in Television and Audiovisual Media.

The Job Description will include :

- a. Working with Technical Assistance Experts and other specialists in the Ports field to record lesson material on video cassette. This will then be edited so that Arabic is on the Sand track.
- b. Maintaining an Audiovisual Center to prepare transparencies, and record course materials, and to store audiovisual equipment.
- c. Designing Photos, replacing, and processing slides type units for facilities.
- d. Developing posters and related visual material for use in training.
- e. Maintaining a Library of Video cassettes for faculty and sound use.
- f. Maintaining Television and Audiovisual Equipment.

IA 2. Job Descriptions for Training Center Startup Program

(See Section 5)

A. Job Description of the Permanent Administration and Faculty.

(Note as several of these Job Description of Permanent Faculty were described in the previous section of this appendix, reference will be made to these rather than encumber the text).

1. Director, Egyptian Ports Training Center

(Please refer to Section AI-A1. All categories shown will be included and the following will be added).

- i. Directing the Activities of the major Center Divisions, Career Development and Inservice-Upgrading.
- j. Chairing the Administration Council (composed of the Director, Assistant Director, Dean of Inservice and Upgrading Division, and Dean of the Career Development Division).

2. Assistant Director (EPTC) Registrar and Dean Administration. This individual will be responsible for assisting the Director in his operational duties, and will be in charge of the processing of students, the Library-Media Center and the Research Division. He should have expertise in acting as a Registrar of student populations; in serving as an administrator of Training Centers. He should have a Masters degree or higher in the student personnel field.

The Job Description will include the following:

- (a) Assist the Director in the Administration and Operation of the Center.
- (b) Direct the processing of students from recruitment to graduation.
- (c) Administer the activities of the Library-Media Center in coordination with the Librarian.
- (d) Direct the activities of the Research Division.

3. Job Description of the Librarian Media Specialist

This individual will provide expertise in Library operation and in Media utilization. He or she should have a thorough knowledge of both Library Administration and operation (preferably in Ports fields) as well as audio-visual media development and use. The individual should have a Masters Degree in Library Services and Media.

The Job Description will include:

- (a) Planning and developing library resources in the Ports field as well as general areas.
- (b) Planning and development of Media Resources.
- (c) Working with the Assistant Director.
- (d) Operating the Library Media Center to meet ongoing needs of faculty and staff.

B. Job Description of the Dean, Inservice and Upgrading Division

This individual will be in charge of upgrading Training Programs and Inservice Activities for Port Vehicle and General Equipment Operators, Mechanic and General Equipment Repair personnel, Dockworkers and Administrative workers and the Training Team Units. He should have a broad experience in Port activities and work at all levels, and if possible, education in the instruction of Port personnel teaching and administrative experience in Port Workers Training Centers. He should have at least a Doctors Degree in Ports, Maritime and Vocational Technical Fields.

The Job Description will include:

- (1) Leadership of the Upgrading and Inservice Division of the Egyptian Ports Training Center.
- (2) Administration of Division Operations including:
 - (a) Recruitment of Faculty.
 - (b) Planning and Development of the Curriculum.
 - (c) Determining the budget for each academic term.

- (d) Providing for adequate facilities for instruction.
 - (e) Scheduling all classes of the division.
 - (f) Securing necessary curriculum supplies and audiovisual equipment and materials.
- (3) Assisting the Director of the Egyptian Ports Training Center in developing overall Center programs and activities.
 - (4) Serving as a member of the Administrative Council.

In this Division there will be six Permanent Faculty Members:

- (1) Job Description of Faculty Members (two members) dealing with Port Equipment Operators Training (please refer to Section A1-A2).
- (2) Job Description of Faculty Members (two) dealing with Mechanics and General Equipment Workers Training (please refer to Section A1-A3).
- (3) Job Descriptions of Faculty Members (two) dealing with Dockworkers Training (please refer to Section A1-A4).

Another Department in the Division is that of the Training Teams. These will consist of part time faculty (16 members) who have expertise in Training for Port Operators, Mechanics and General Equipment, Workers, Dockworkers, Administrative Workers and Managers. They will travel to the Ports of Egypt to provide on-site instruction for the complete range of Port operations. There will be approximately seventy part time Trainers composed of Port personnel working with this Department. (Please refer to Section A1-C).

C. Job Description of the Dean, Career Development Division

This individual will be in charge of the Career Certification Program of the Egyptian Ports Training Center, the Apprenticeship Program,

the Junior Level, Senior Level and Graduate Level Career Development areas. He should have a broad background in Educational Administration and Supervision, and experience in the Port Worker Training field. He should hold a Doctoral Degree in Port Operations and Transportation.

The Job Description will include:

- (1) Leadership of the Career Development Division of the Egyptian Ports Training Center.
- (2) Administration of Division operations including:
 - (a) Planning and Development of the Academic Program.
 - (b) Recruitment of Faculty and Staff.
 - (c) Determining the budgetary needs of the division.
 - (d) Providing for adequate facilities for instruction.
 - (e) Scheduling of all classes of the division.
 - (f) Securing necessary curriculum supplies, audio-visual equipment and materials.
 - (g) Assisting the Director of the Egyptian Ports Training Center in developing overall Center programs and activities.
 - (h) Serving as a member of the Administrative Council.

In this Division there will be twelve Permanent Faculty Members:

- (a) Job Description of the Faculty Member serving as Apprenticeship Coordinator. This individual will coordinate all Apprenticeship activities. He should have had extensive experience in Port service, and as an Apprenticeship supervisor. He should have a minimum of a Master's Degree.

The Job Description will include:

- (i) Establishing in cooperation with the Division, policies for the operation of the Apprenticeship Program.
 - (ii) Coordinate the placement, supervision, and evaluation of all Apprentices.
 - (iii) Advising and assisting the Apprenticeship supervisors.
 - (iv) Establishing contacts with Agencies working with the Apprentice Program and serving Apprentice Advisors for the Programs.
- (b) Job Description of Faculty Members (two) serving as Apprentice Supervisors. These individuals will supervise Apprentices and their placement. He should have experience in Port Service. Also, he should hold a Master's Degree. The Job Description will include:
- (i) Assisting the Apprenticeship Coordinator with Department Activities.
 - (ii) Supervising Apprentices in their on-the-job assignment.
 - (iii) Working with Apprentice Advisors, during the Apprenticeship Period.
 - (iv) Evaluating the work of the Apprentice.
- (c) Job Description of Faculty Member dealing with Basic Programs Instruction in Career Development for Operators and Mechanics Training. (Please refer to Section A1-A2 and A3).
- (d) Job Description of Faculty Member dealing with

Basic Programs Instruction for Dockworkers and Administrative Workers Training. (Please refer to Section A1-A4 and A5).

- (e) Job Description of Faculty Member dealing with Basic Programs Instruction in Career Development for Communication Skills. This individual will teach courses in the field. He should have extensive academic experience in the Communications field. He should hold a Doctoral Degree in this field.

The Job Description will include:

- (i) Working with the Director, Technical Assistance Counterpart in developing courses in the field.
- (ii) Teaching courses in Communicating Arts.
- (iii) Sharing in the development of Teaching Resources.
- (iv) Providing for Laboratory and Demonstration Period Supervision and Instruction.
- (v) Developing Course Outlines, Lesson Plans, Demonstration Units, and course instructional guides for students.
- (vi) Assisting in the selection of appropriate texts for instruction as well as other curriculum materials.
- (vii) Serving on committees as requested concerning the Center Program.

- (f) Job Description of Faculty Member dealing with Basic Programs Instruction in Career Development for Humanities and Fine Arts Instruction. This individual will teach courses in these fields. He should have extensive

academic experience in the Humanities and Fine Arts. He should hold a Doctoral Degree in these fields.

The Job Description will include:

- (i) Working with the Director, and Technical Assistance Counterpart in developing courses in the field.
 - (ii) Teaching Courses in Humanities and Fine Arts.
 - (iii) Sharing in the development of Teaching Resources.
 - (iv) Providing for Laboratory and Demonstration Period Supervision and Instruction.
 - (v) Developing course outlines, lesson plans, demonstration units, and course instructional guides for students.
 - (vi) Assisting in the selection of appropriate texts for instruction as well as other curriculum materials.
 - (vii) Serving on committees as requested concerning the Center Program.
- (g) Job Description of Faculty Members (two) dealing with Training in the Junior Level Career Programs of Operators and Mechanics Training; and Dockworkers and Administration Personnel Training. (Please refer to Section A1-A2,3,4 and 5).
- (h) Job Description of Faculty Members (two) dealing with Training in the Senior Level of Career Development Programs of Advanced Operators and Mechanics Training and Dockworkers and Administrator Personnel Training. (Please refer to Section A1-A2 and 3).

- (i) Job Description of Faculty Member dealing with Training in the Graduate Level of Career Development Programs of Superintendents, Managers and Directors (please refer to Section A1-A5).

There will be thirty Trainers working with this Division.

5.4.3 D. ROLE OF TRAINING COUNCIL MEMBERS

(Please refer to Section A1-B).

5.4.4 E. JOB DESCRIPTION OF TRAINING TEAMS

(Please refer to Section A1-C).

5.4.5 F. JOB DESCRIPTION OF TECHNICAL ASSISTANCE PERSONNEL

(10 full-time, 1 part-time)

1. Job Description of Instructional Coordinator and Curriculum Specialist (please refer to Section A1-A4).
2. Job Description of Training Specialist dealing with In-service and Upgrading Division. He will have experience in administering the planning of Inservice and Upgrading programs and Continuing Education. He should hold a Doctor's Degree in Continuing Education.

The Job Description will include:

- (a) Assisting the Dean of the Inservice Upgrading Division.
- (b) Conducting Manpower Studies of Port Workers to determine training needs of the Ports.
- (c) Coordinating activities of Technical Assistance Personnel in this Division.

- (d) Develop Training Programs for the Upgrading of Ports Personnel.
- (e) Travel with Training Teams as required to the Ports of Egypt

Job Description of Training Specialist (two for Port Equipment Operators. (Please see Section AI-D2; Port Operators aspect only).

Job Description of Training Specialists (two) for Port Dockworkers. (Please refer to Section AI-D3; Port Dockworkers aspect only).

Job Description of Training Specialists for Port Mechanics and General Equipment Repair Workers. (Please refer to Section AI-D2; Mechanics and General Equipment Repair Workers only).

Job Description of Training Specialists for Technical Fields and Container Terminal Operations. This individual should have broad experience in all areas of this field from jetty work to administration. He should have a Degree in Business or Engineering fields.

The Job Description will include:

1. Working with the Dean of Inservice and Upgrading in developing programs for Container Terminal Personnel Training.
2. Teaching courses in Container Operations for all levels of workers including the administrative level.
3. Assisting the Director of the Center in work with the Ports of Egypt of the new Container Programs.

4. Traveling to the Ports of Egypt to assist with Container Personnel Training.

Job Description of Training Specialist for Continuing Education. This individual will provide expertise in the development of off-campus training. He should have a broad background in Continuing Education and experience in Port Operations. He should have at least a Master's Degree in Continuing Education.

The Job Description will include:

1. Developing programs for the Training of Personnel of the Ports of Egypt away from the main Center.
2. Assisting with the development and scheduling of Training Teams.
3. Traveling on a regular basis with the Training Teams to the various Ports for Inservice Activities.
4. Serving on Division Committees as required.

- G. Job Description of Training Specialist in Port Career Development Programs.

This individual will work closely with the Dean, Career Development Program. He will have expertise in the administration of an educational enterprise, as well as a broad background in Ports operation. He should hold a Doctoral Degree in Educational Administration.

The Job Description will include:

1. Assisting the Dean of the Career Development Program.
2. Working with the Permanent Faculty of the Division in the planning and organization of the Academic Programs of the Center.

3. Planning the development of the Center program for future operations for successive groups of career students.
4. Advising on the selection of curricular materials for the Center program.
5. Leadership of Technical Assistance Faculty in the Division.

Job Description of Training Specialist in the Apprenticeship and Port Training. This individual will have expertise in the planning and operation of Apprenticeship programs preferably in the Port field. He may have served as an Administrator of an Apprentice Program. He will have at least a Master's Degree.

The Job Description will include:

1. Working with the Permanent Faculty in designing Apprenticeship Programs.
2. Assisting supervisors in their program development and work with Apprentices.
3. Advising Agencies in cooperation with the Permanent Apprenticeship Director.
4. Designing continuing programs of Apprenticeship for the Center.
5. Serving on Committees as required.

Job Description of Training Specialist in Advanced Port Worker Programs and Administrative Level Programs. This individual will provide expertise on advanced studies for Port personnel. He should have an extensive background and experience in all levels of work in the Ports from the Dockworker to the Director. He should hold an advanced Degree or equivalent experience in the field of Port Operations.

The Job Description will include:

1. Assisting the Permanent Faculty in these fields of Career Development.
2. Designing Programs for Career Development of advanced level personnel.
3. Demonstration teaching in selected areas for Permanent Faculty.
4. Advising on course development and curriculum materials.
5. Serving on committees as required.

Job Description of Training Specialist in Library Science and Media. This individual will provide expertise in Library Operation and Media Development. He or she will have experience in the Administration of a library and operation of a Media Center.

The Job Description will include:

1. Assisting the Permanent Librarian in the Planning and Development of Library Resources on Ports.
2. Assisting in the development and operations of audio-visual media for the Ports field.
3. Serving on committees as required.

A P P E N D I X II

REPORT OF CONSULTANTS ACTIVITIES

APPENDIX II

REPORT OF CONSULTANTS ACTIVITIES

II A.1 GOALS OF THE STUDY OF THE FEASIBILITY OF A TRAINING PROGRAM FOR THE PORTS OF EGYPT

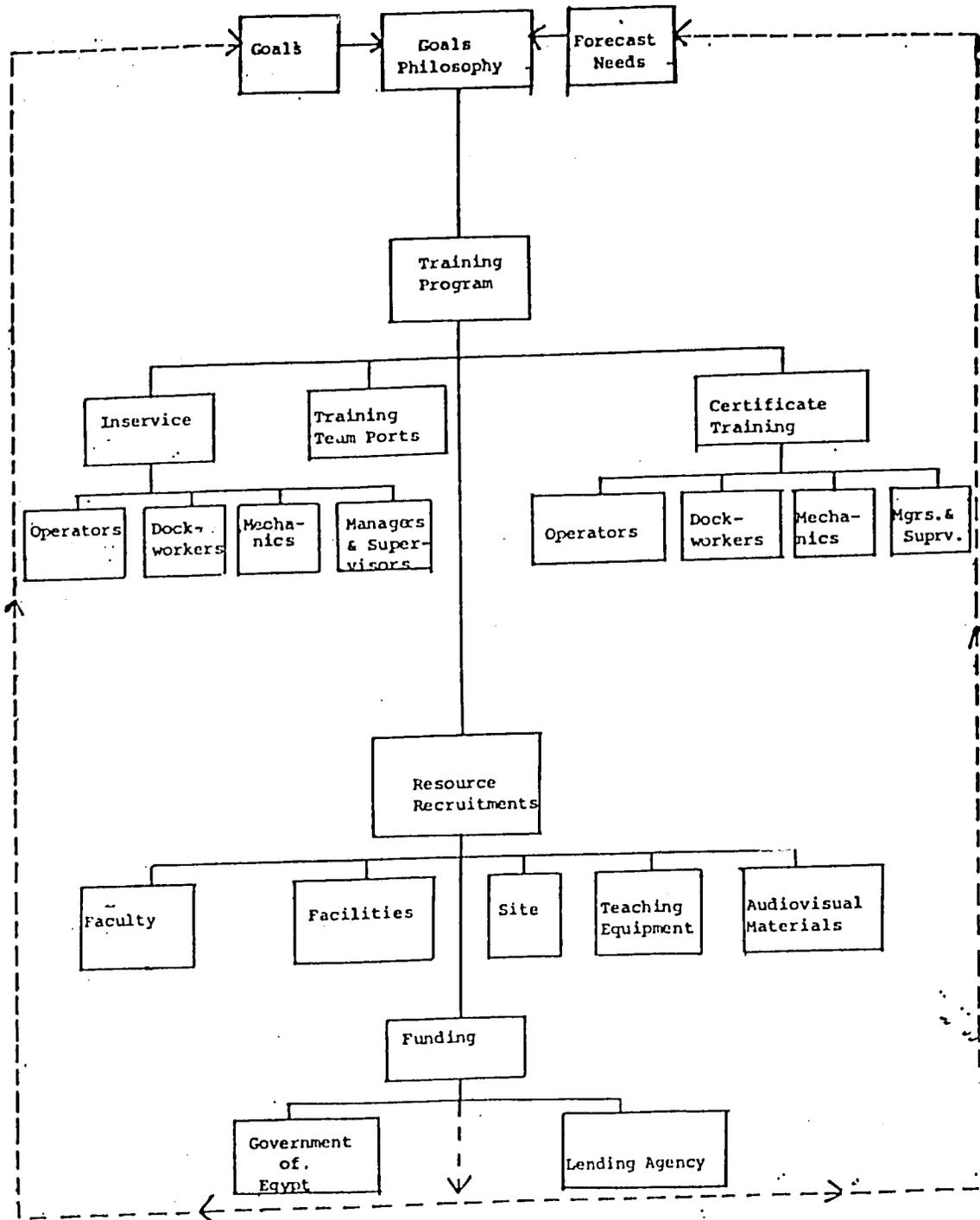
In the assessment of the potential for a Training Program for the Egyptian Ports, the Consultant undertook research into the status of the Ports structure and operation. Historical studies of the Egyptian Ports of a professional nature were analyzed as well as current data that examined aspects of Port activities including: planning, development, administration, supervision, personnel, operation, construction and finance.

The basic goal of this investigation was to determine the feasibility of an Egyptian Ports Training Program and a directly related goal, if a Training Program was required, what would the scope of the Training Program be. (See next page Chart I).

A plan of study to determine the feasibility of a Training Program was laid out. An underlying question examined in the on-going study was the criterion of need of the Egyptian Ports for Training. The configuration of maximum output and production in line with the mechanization potential and the human factor of the Ports was examined in the light of actual production and current equipment and worker availability.

A manpower study was undertaken of the personnel employed in the Ports of Egypt. Time constraints limited the search for data, but sufficient information was obtained to achieve the goals of the study. It is recommended that this be continued during the Preliminary Training Period.

CHART 1
 EGYPTIAN PORTS TRAINING CENTER
 AREAS CONSIDERED IN FEASIBILITY STUDY



II A.2 SCOPE OF THE ACTIVITIES OF THE CONSULTANT IN THE FEASIBILITY STUDY

- A. To secure current data on world Port Development and Training, the Consultant accomplished the following in the United States:
1. Meetings with Port officials of the Great Lakes.
 2. Conferences with officials of the United States Maritime Administration in Washington and also with the Training Division to obtain research data.
 3. Meeting with Ports Leaders of the Maritime Transport Association in New York.
 4. Use of United Nations in New York for resources on Ports Training Programs.
 5. Securing Training Programs utilized in European countries.
 6. Conferring with the Administration and visit to the U.S. Merchant Marine Academy.
 7. Meeting with officials of the World Trade Institute and its Port Training Department in New York.
 8. Visit to the Seaman's Church Institute Training Center in New York.
 9. Contact with International Seaman's Union Schools in New York and Maryland.
- B. Meetings and Conferences were held throughout the Feasibility Study Period with the following:
1. Dr. Gamal Moukhtar, Director, Arab Maritime Transport Academy, and Administrators and Faculty, particularly those relating to Ports.
 2. Admiral Galal Fahmy, Chairman, Alexandria Port Authority and his Administrators and Training Staff.

3. Mr. Fouad B. Hashem, Chairman, United Arab Stevedoring Company and his Administrators including Representatives from the Personnel Division and Training Staff as well as shop repair units, Stevedores and Supervisors.
4. Mr. Mohamed A. Gaballah, Chairman, General Warehouses of Egypt and his Administrators and Representatives from the Personnel Division and Training Staff as well as repair units, Workers and Supervisors.
5. Port of Suez and the Red Sea Ports.
Admiral Mohamed Raafat, Director Red Sea Port Authority.
6. Port Said
Admiral Gamal Ibrahim, Director, Port Said Port Authority.
7. Admiral Farouk El Amami, Director, Egyptian Navigation Company and Training Department Personnel.
8. Ministry of Maritime Transport, Government of Egypt.
9. Commercial Officials involved in shipping both export and import.
10. U.S. AID Officials in Cairo and in Alexandria.
11. PRC Harris, Inc., Officials in Alexandria.

C. Visit for on-site observation by the Consultant was made to the following areas:

1. Port of Alexandria:
 - a. All workshops, work areas, equipment repair locations.
 - b. Warehouses and storage facilities.
 - c. All classrooms and possible training facilities.
 - d. Visit to entire Port Area.
 - e. Ships at piers and barges.
 - f. Cargo Handling Equipment of all types.
 - g. Personnel involved in preventive and corrective, repair and maintenance.

- h. Personnel involved in Cargo Handling, APA, UASC and GWE offices.
 - i. Personnel coverage of entire Port Area for sites.
 - 2. Cargo Storage Depot, Nubaria.
Container and General Cargo locations.
 - 3. Arab Maritime Transport Academy.
 - a. Building and most classrooms, laboratories, shops and libraries at the Miami location (Eastern Alexandria).
 - b. New workshops at new location (now taken over by Armed Forces).
 - c. Building and site at Abou Kir (East of Alexandria which is to be the new location for the Academy).
 - 4. Egyptian Navigation Company
Buildings adjacent to the Port.
- D. Tour of the Ports of Egypt
- To provide a first hand review of facilities and equipment. The Consultant visited the Port of Saïga, Port of Suez and Port of Port Said and all buildings and piers were toured. Cargo Handling procedures were observed. Equipment used in Port operations was assessed for their current status.
- Personnel and Supervisors provided an insight into the Port activities. Data on Port tonnages, conditions, and programs was secured.
- Facilities that might be used for training were evaluated. A pictural record was prepared of the Ports.

- E. Potential Training Center Sites were visited in and out of the Port Area in Alexandria:
 - a. Adjacent to Egyptian Navigation Company.
 - b. Navy Artillery Site.
 - c. Warehouse Area near Gate # 1.
 - d. Warehouse Area under Gate # 10.
 - e. Repair Workshops and Elementary School near Gate # 27.
 - f. Boat Yard near Yacht Club.
 - g. Abou Kir site of Arab Maritime Transport Academy.
 - h. Miami Area site of Arab Maritime Transport Academy.
 - i. Area near Nubaria General Warehouses of Egypt Depot.
 - j. Gate # 1 in Navy Terminal.
 - k. Old Railroad Yards near Gate # 27.
- F. Data of all types as reviewed and collected throughout the study period. This included:
 - a. Government of Egypt Documents.
 - b. Academic studies of the Ports of Egypt.
 - c. Organization charts, job descriptions, equipment holdings for all Organizations involved in Port Activities as well as any information relevant to the study.
 - d. Consultant's reports of both a historical and current nature, particularly PRC Harris, Inc.
 - e. Manuals, studies, reports on Port Activities of a commercial nature.
 - f. Training Equipment including audiovisual materials for Educational Programs in Port Operations.
- G. Finally, on-the-job observations and meetings were held with dock supervisors, foremen, workmen, mechanics, electricians, port clerks and equipment operators to determine their needs for training.
- H. A Feasibility Study Schedule bargraph for the entire period is shown hereafter.

FEASIBILITY STUDY SCHEDULE

EGYPTIAN PORTS TRAINING CENTER

1980-81	DECEMBER				JANUARY				FEBRUARY					
Beginning of Week	1	7	14	21	28	4	11	18	25	1	8	15	22	30
Visits - Port Programs								
Conferences - Officials								
Interviews - On-The-Job								
Collection of Data								
Outline - Interim Period								
Outline - Egypt. Ports TC										
Study Preparation													
Introduction													
Recommendations													
Implementation of Prog.													
Nature of Egypt. Ports													
Curricula of Program													
Facilities & Site													
Faculty & Staff													
Costs & Budget													
Schedule of Implemen.										
Summary and Conclus.													
Addendum - Initial Pr.													
Final Report & Prep.													

A P P E N D I X I I I

BUDGET ESTIMATES FOR TRAINING CENTER PROJECT

- III A-1 Preliminary Training Program
- III A-2 Egyptian Ports Training Center
Start-up Assistance

A P P E N D I X I I I A

PRELIMINARY TRAINING
PROGRAM

DOLLAR AND EGYPTIAN
POUND BUDGET

Period: July 1, 1981, to
December 31, 1982

TABLE I
ESTIMATED DOLLAR COST FOR PRELIMINARY TRAINING PROGRAM
TRAINING CENTER FOR THE PORTS OF EGYPT
ALEXANDRIA, EGYPT - JULY 1, 1981 - DECEMBER 31, 1982

1. <u>Labor Costs</u>		
Payroll (88 work months)	300,000	
Overseas Differential	95,000	
Overhead and Fringes (Est. 140%)	<u>553,000</u>	
Total Labor Cost		948,000
2. <u>Out of Pocket Costs</u>		
<u>Travel</u>		
16 International Trips @ 2000	32,000	
Domestic Travel	<u>2,000</u>	34,000
<u>Overseas Staff Contract Costs</u>		
(Based on 4 resident staff with wife and 1 child)		
Defense Base Act Insurance	52,000	
Moving and Storage	12,000	
Mobilization/Demobilization	12,000	
Educational Allowances	<u>24,000</u>	100,000
<u>Home Office Miscellaneous Costs</u>		
18 months @ \$500/month		9,000
<u>Project Office Equipment and Vehicles</u>		
(Table 2)		53,000
<u>Educational Equipment and Supplies</u>		
Video (Table 3)	109,700	
Audio Visual (Table 4)	55,050	
Components (Table 5)	<u>22,500</u>	<u>187,250</u>
<u>Estimated Total Cost</u>		1,331,250
3. Consultants Fee (Est 20%)		<u>266,250</u>
	TOTAL	1,597,500
		=====

TABLE 2
PROJECT OFFICE EQUIPMENT AND VEHICLES

U.S. Dollar Costs

4 Autos @ \$9,000	36,000
4 Typewriters and word processor	7,500
1 Refrigerator @ \$800	800
10 Airconditioners/Heaters @ 500	5,000
1 Telex	1,200
Miscellaneous Supplies	<u>2,500</u>
	\$53,000
	=====

TABLE 3
VIDEO REQUIREMENTS
IN DOLLARS

<u>NO.</u>	<u>ITEM DESCRIPTION</u> (Video)	<u>PRICE Ea.</u>	<u>TOTAL</u>
6	Video cassette, Recorder/Player, ½", with programmable features, commercial, VHS.	2,000	18,000
2	Video cassette, Recorder/Player, ½", with editing capability, commercial, VHS.	3,500	7,000
4	Video cassette, Recorder/Player, ½", <u>Portable</u> , programmable tuner, commercial, VHS.	2,000	8,000
4	Video camera, color, (for use with Portable VTR's), VHS, power-pak Transformer.	2,500	10,000
12	Video Monitor, color, (with jacks, commercial type, VTR's and Cameras), 19".	1,500	9,000
2	Large Screen Monitor, color, VHS, 72" screen, (for use with VTR's).	4,000	8,000
2	Duplicator, High Speed, Video cassette, ½", 3 copy positions. Tape, Video cassette, ½", 3 M Scotch Panasonic, medium quality in following amounts :	2,600	5,200
100	VHS-30, ½", Video cassette (1000 tapes), pkgs of 20	300(pkg)	30,000
25	VHS-60, ½", Video cassette (500 tapes), pkgs of 20	400(pkg)	10,000
5	VHS-120, ½", Video cassette (100 tapes), pkgs of 20.	500(pkg)	2,500
			109,700 =====

TABLE 4
PRELIMINARY TRAINING PERIOD
AUDIOVISUAL REQUIREMENTS
IN DOLLARS

<u>NO.</u>	<u>ITEM DESCRIPTION</u> (Photographic)	<u>PRICE Ea.</u>	<u>TOTAL</u>
5	a. Camera, 35 mm, Pentax Quality, single lens Reflex	500	2,500
1	b. Copy Stand, Beseler, 35m and 4 x 5 production	2,000	2,000
1	c. Copy Stand, MP-4, Polaroid W1 attachments	6,000	6,000
4	16 mm Projectors	1,500	6,000
6	Overhead Projectors, 3M	500	3,000
6	Filmstrip Projectors	300	1,800
10	Recorder, Portable, Panasonic RS-7	75	750
1	Recorder, Studio quality	1,500	1,500
2	Opaque Projector, Beseler	1,000	2,000
1	Dry Mounting Press, (New paper size)	2,500	2,500
1	3m Secretary Copy Machine (for transparency Preparation)	1,500	1,500
100	a. Transparency Paks, 100 pkg	20	2,000
100	b. Dry Mounting Tissue, Ltr, size 100pkg	20	2,000
	Audiovisual Supplies (Film, etc.)		20,000
3	Record Player.	500	1,500

55,050

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TABLE 5
PRELIMINARY TRAINING PERIOD
AUDIOVISUAL COMPONENTS
IN DOLLARS

<u>NO.</u>	<u>ITEM DESCRIPTION</u>	<u>PRICE Ea.</u>	<u>TOTAL</u>
4	Movie Mover Unit, (portable screen and projector stand)	1,000	4,000
5	Screens, portable, 60"	300	1,500
5	Screens, Portable, 72"	400	2,000
8	Television Stand, VTR Cabinets, portable	1,000	8,000
10	Stand, Projection	300	3,000
1	Video cassette Cabinet (for Program Recordings)	1,500	1,500
Asst.	Television jacks and Cables		2,500
			<u>22,500</u>
			=====

TABLE 6
EGYPTIAN POUND BUDGET
LOCAL CURRENCY COST OF CONSULTANT PRELIMINARY TRAINING PROGRAM
PORT TRAINING CENTER, ALEXANDRIA, EGYPT
July 1, 1981 - December 31, 1982

<u>Expense</u>	<u>Cost Basis</u>	<u>Total</u>
Office Expenses	450 x 18 mo	8,100 ¹⁾
Photocopier rental	350 x 18 mo	6,300
Film Processing Expenses	1200 x 16 mo	19,200
Auto Operating Expenses	4x75x 18 mo	5,400 ²⁾
Communications	70 x 18 mo	1,260 ³⁾
Local Travel	75 x 18 mo	1,350 ⁴⁾
Local Salaries	1800 x 18 mo @ 130%	42,120 ⁵⁾
Living Allowances	750x4x 18 mo	54,000
Per Diem	40 x 300 days	<u>12,000</u>
		L.E.149,730
Contingencies (20%)		<u>29,946</u>
	TOTAL	L.E.179,676 ⁶⁾ =====

- 1) Provided office space and furnishings provided by client
- 2) Provided vehicles provided under dollar budget
- 3) Provided telex and local telephone service provided by client
- 4) Provided travel to other Egyptian ports provided by client
- 5) Includes Social Benefit Costs

A P P E N D I X I I I A - 2

EGYPTIAN PORTS TRAINING CENTER START UP ASSISTANCE

DOLLAR AND EGYPTIAN
POUND BUDGET

Period: January 1, 1983 to
December 31, 1984

TABLE 1
ESTIMATED DOLLAR COST FOR START UP ASSISTANCE
TQ EGYPTIAN PORTS TRAINING CENTER
ALEXANDRIA EGYPT-JANUARY 1, 1983-DECEMBER 31, 1984

1.	<u>Labor Costs</u>		
	Payroll (212 work months)	763,000	
	Overseas Differential	170,000	
	Overhead & Fringes (Est 140%)	<u>1,306,000</u>	
	Total Labor Cost		2,239,000
2.	<u>Out of Pocket Costs</u>		
	<u>Travel</u>		
	36 International Trips @ 2,400	86,400	
	Domestic Travel	<u>5,000</u>	91,400
	<u>Overseas Staff Contract Costs</u>		
	(Based on resident staff with wife and 1 child)		
	Defense Base Act Insurance	130,000	
	Moving and Storage	30,000	
	Mobilization/Demobilization	30,000	
	Educational Allowances	<u>60,000</u>	250,000
	<u>Home Office Miscellaneous Costs</u>		
	24 months @ \$600/month		14,400
	<u>Project Office Equipment and Vehicles</u>		
	(Table 2)		46,000
	<u>Training Center Facilities and Equipment</u>		
	Supplied under Procurement Loan (See Table 3)		<u>-</u> 1)
	Estimated Total Cost		2,640,800
3.	Consultants Fee (Est 20%)		<u>528,200</u>
	TOTAL		3,168,000

1) This item would not be a part of Consultants Cost

TABLE 2
PROJECT OFFICE EQUIPMENT AND VEHICLES

U.S. Dollar Cost

4 Autos or Vans @ 9000	\$36,000
Typewriters	2,000
Air Conditioners/Heaters	5,000
Miscellaneous	<u>3,000</u>
	\$46,000

Note: Office equipment and vehicles supplied under Preliminary Training Program would also be utilized.

TABLE 3
TRAINING CENTER FACILITIES AND EQUIPMENT

(The following is a preliminary list of Items to be Procured by the Sponsoring Lending Agency under its traditional Procurement Loan Program. Specification and Procurement Procedures are expected to be carried out during the Preliminary Training Program, but would be for the account of the Training Center Start Up Assistance Program)

(Costs Estimated for 1982)

<u>Qty</u>	<u>Item</u>	<u>Total Cost</u>	
	<u>1. Facilities</u>		
1	Administration - Library Building (Pre-fabricated or Regular)	300,000	
1	Classroom - Faculty Office Building, (Pre-Fabricated or Regular)	375,000	
1	Workshop Building (Demonstration), (Pre-Fabricated or Regular)	350,000	
1	Workshop Building (Teaching-Repair), (Pre-Fabricated or Regular)	350,000	
1	Driving Concourse (Fencing, Grading)	25,000	
1	Cargo-Handling Staging Area (Surfacing, Fencing)	50,000	
Var.	Furnishings for Buildings	300,000	
1	Office-Center Building (Pre-Fabricated or Regular)	150,000	
		<hr/>	
		1,900,000	1,900,000
	<u>2. Transport Equipment</u>		
6	School Buses	240,000	240,000
	<u>3. Training Equipment</u>		
	Demonstration Workshop Equipment	150,000	
	Teaching - Repair Workshop Equipment	<u>250,000</u>	
		400,000	400,000

(continued)

TABLE 3
TRAINING CENTER FACILITIES AND EQUIPMENT
 (Continued)

Driving Concourse Equipment		
Truck	25,000	
Truck-Trailer	100,000	
Dump Truck	26,000	
Tractor	30,000	
Pickup	7,000	
	<u>188,000</u>	188,000
Cargo-Handling Equipment		
Crane	156,000	
Forklift	18,000	
Front-End Loader	43,000	
Container Loader	75,000	
Asst. Items (Buckets, slings, etc.)	100,000	
	<u>292,000</u>	292,000
4. <u>Audiovisual Equipment and Materials</u>		
Classroom Building	50,000	
Library-Media Building	150,000	
Micro-Teaching Unit (Tele- vision, VTRS, Cameras)	15,000	
	<u>215,000</u>	<u>215,000</u>
	GRAND TOTAL	<u>3,235,000</u> =====

TABLE 4
EGYPTIAN POUND BUDGET
TRAINING CENTER FOR THE PORTS OF EGYPT
JANUARY 1, 1983 - DECEMBER 31, 1984

<u>Expense :</u>	<u>Monthly Cost</u>	<u>Total</u>
Office Expenses	500 X 24 mo	LE 12,000
Photocopier Rental	400 X 24 mo	9,600
Auto Expenses	100 X 4 X 24 mo	9,600
Communications	70 X 24 mo	840
Local Travel	100 X 24 mo	2,400 ⁴⁾
Local Salaries	2000 X 24 mo	48,000 ⁵⁾
Living Allowance	800 X 24 mo	163,200
Per Diem	50 X 240 days	12,000
		<hr/>
		257,640
Contingencies (20%)		51,530
		<hr/>
	TOTAL	LE 309,170
		=====

- 1) Provided office space provided by client at not cost to Consultant
- 2) Provided vehicles provided under dollar budget
- 3) Provided telex service provided by client at no cost to Consultant
- 4) Provided travel to other Egyptian Ports provided by client
- 5) Includes Social Benefit Cost