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FOLLOW-UP STUDY
FOR
THE FISHERIES TRAINING PROJECT
IN
PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

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MAY 1988

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PREFACE

The fisheries training vessel "MV IBIN MAGID (250t)" which was provided to People's Democratic Republic of Yemen under the scheme of "Fisheries Training Project" of 1977's Japanese Grant Aid was transported to Aden port of People's Democratic Republic of Yemen after completion on September, 1978 and obtained good results for fisheries training and resources survey.

Unfortunately, she suffered fire damage in May 1987, and was impossible to operate owing to damage of the wheel house and captain's room.

Previously, the Government of People's Democratic Republic of Yemen had highly appraised the results for the fisheries development performed by this vessel and intended to reuse.

Therefore, the Government of People's Democratic Republic of Yemen made a request to the Government of Japan to study the possibility of repair and reoperation.

In response to this request, the Japan International Cooperation Agency (JICA) decided to conduct a follow-up study for examination on conditions of damage and investigation on the possibility of rehabilitation and reoperation.

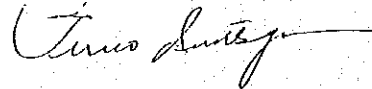
Based on this decision, JICA sent a study team headed by Mr. Masaaki SHIMAMURA, Deputy Director, Fishing Boat Division, Fisheries Agency, from April 8 to April 20, 1988.

The team had several discussions with the officials concerned of the Government of People's Democratic Republic of Yemen and conducted a field study.

This report wrapped up the team's study and I hope this report will serve for the development of the fisheries project and contribute to the promotion of friendly relation, between our two countries.

I wish to express my deep appreciation on this occasion to the officials concerned of both countries for the close cooperation extended to the team.

May, 1988

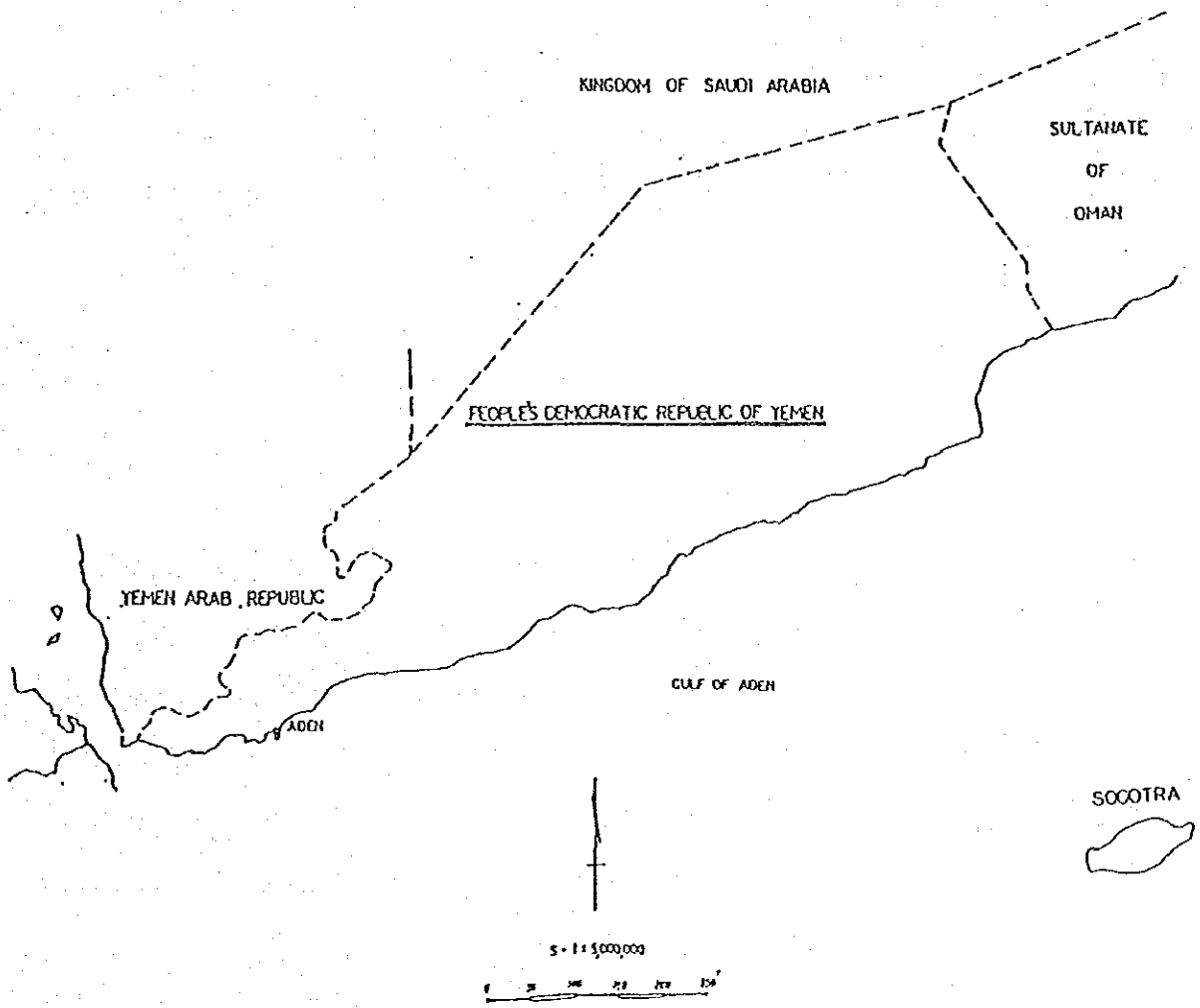
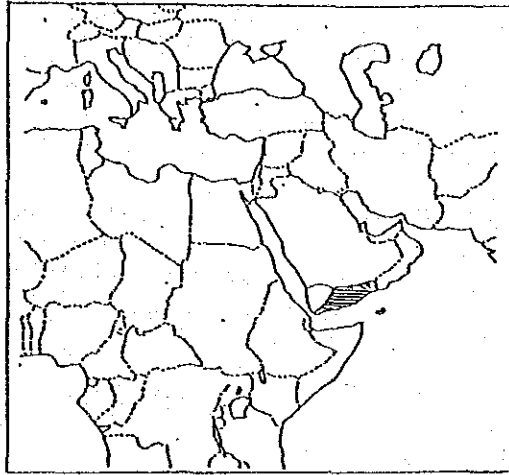


Teruo SUETSUGU

Director

Grant Aid Project Management Department
Japan International Cooperation Agency
(JICA)

MAP



KINGDOM OF SAUDI ARABIA

SULTANATE
OF
OMAN

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

YEMEN ARAB REPUBLIC

ADEN

GULF OF ADEN

SOCOTRA

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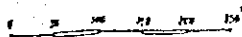


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PHOTOGRAPH

CHAPTER 1 INTRODUCTION

Even after the recent discovery of the oil resource, the fisheries are the major primary industry in the economy of the People's Democratic Republic of Yemen (hereinafter referred to as "PDRY" or "the country") and keep an important position for offering animal protein to citizens and for obtaining foreign currencies through export.

For the promotion of the fisheries in the country, the fisheries training vessel, MV IBIN MAGID (hereinafter referred to as "the vessel"), was granted by the Government of Japan for the purpose of the resources survey and the training of fishermen.

Since the delivery of the vessel to the country, it had been operated successfully by the staff of the country with the guidance and cooperation of the experts sent by the Japan International Cooperation Agency (hereinafter referred to as "JICA"). However, the vessel suffered from a fire during the execution of maintenance work. Now it is not available for operation.

Therefore, the Government of the PDRY made a request for the grant aid from the Government of Japan for the study to survey the damage condition and to seek the rehabilitation method for the vessel.

In response to the request, the Government of Japan decided to conduct a study of the above mentioned program and entrusted the study to the Japan International Cooperation Agency (JICA). JICA sent to the PDRY a study team (hereinafter referred to "the team") headed by Mr. Masaaki SHIMAMURA, Deputy Director, Fishing Boat Division, Fisheries Agency, from April 8 to April 20, 1988.

The team had discussions on the background of the request and the content of the program with the officials concerned of the Government of the PDRY, conducted a field survey of the vessel and the local

dockyard, and collected necessary materials and information.

After the team returned to Japan, further studies were made on the materials obtained and the results of discussions to evaluate the effects of the vessel to the country, and this report was prepared to describe the optimum rehabilitation method for the vessel.

The Minutes of the Meeting including the matters confirmed by the both sides during the study, the member list of the team, the list of counterparts and the study schedule are attached hereto as appendices.

CHAPTER 2 BACKGROUND OF THE STUDY

2-1 Outline of The Fisheries Training Vessel, MV IBIN MAGID

The IBIN MAGID was provided under the Japanese grant aid in 1977 following to the signature of E/N between two governments on September 6th of the same year. This vessel was constructed in Narasaki Shipyard in 1978, then brought to Aden in the same year. It was officially delivered to the People's Democratic Republic of Yemen on October 21st, 1978.

After the delivery of this vessel to the country, it had been operated by the staff of the country and with the guidance of the JICA's experts sent for the training of crew members as the only fisheries training vessel in the PDRY. It had equally been operated for the oceanographic and fisheries resources surveys of the waters belonging to the country. The practical results of this vessel were highly appreciated by the Government of the country, FAO and other organizations.

Main particulars of this vessel are as follows:

Gross Tonnage (in accordance with Japanese regulations at the time of construction):	250.31 tons
Net Tonnage (in accordance with Japanese regulations at the time of construction):	72.35 tons
Length Overall:	37.8 m
L pp:	32.0 m
Breadth:	8.0 m
Depth:	3.8 m
Designed Draft:	3.0 m
Max. Speed in Trial Operation (4/4 output):	12.35 knots
Fish Hold Capacity (Bale):	87.95 m ³
Fuel Oil Tank Capacity:	84.05 m ³
Lubricant Tank Capacity:	4.78 m ³

Fresh Water Tank Capacity:	14.05 m ³
Complement:	22 persons
Main Engine:	Yanmar T220-ST x 1 900 PS x 800 R/M Reduction gear ratio 2.68
Propeller:	Kamome GPC-53 x 1 Diameter 2200 x 4 blades
Generator engine:	Yanmar 5KDL x 2 115PS x 80 KVA x 1200 R/M
Refrigeration Equipment:	Kyodo Teion Kogyo Compressor: Maekawa MFG. N-6A x 30 KW x 1 N-2A x 11 KW x 1
Fishing Equipment (hydraulic):	Uchida Yuatsu
Main Generator:	Taiyo Electric Self-excited, AC 225 V x 80 KVA x 60 Hz x 2
Main Switch Board:	Taiyo Electric, Independent Dead Front
Direction Finder:	JRC JLR-1002
Radar:	JRC JMA-148-MII
Fish Finder:	Furuno FHG2000 20- KHz x 2
Net Recorder:	Furuno FNR-200 MII
Sonar:	Furuno FSS-75A 75 KHz 180°
Gyrocompass:	Tokyo Keiki ES IIA
Steering Gear:	Tokyo Keiki PR-2225-025 2.5 T-M x 2.2 KW
SSB Transceiver:	JRC JSB-101
VHF Radio Telephone:	JRC JHV-217C
SOS Buoy:	JRC JXS-1005

2-2 Review of The Request

The fisheries is a very important foreign currencies obtaining industry in the country. The PDRY's main export fish species is common cuttlefish. However, its fishing has also problems such as the reduction of the resources due to overfishing and variation in its catch. In such circumstances, the Government of the country is studying to designate the maximum reasonable production of this species.

For the purpose of the promotion of its fishing, the resources survey and the training of fishermen, a fisheries training vessel, namely the IBIN MAGID, was granted by the Government of Japan in 1977.

Since its delivery it had been operated successfully with the guidance and cooperation of the JICA's experts sent until January, 1986. Unfortunately, the vessel suffered from a fire during the execution of the maintenance work. Now it is not available for operation.

The Government of the country realized the necessity of a training vessel for continuing the resources survey and the follow-up survey for resources supplementation and reproduction. Accordingly, it planned to rehabilitate the said vessel to normal condition by restoration of the burnt structure, acquisition of necessary materials and equipment, and rehabilitation of whole vessel; and made a request to the Government of Japan for the dispatch of a study team.

Since the said vessel is not insured for the damage of hull, as is the case of Government-owned vessels in Japan, its restoration cannot be supported by any insurance.

CHAPTER 3 CONTENT OF THE STUDY

3-1 Objectives of The Study

The study has objectives to accurately survey the damage condition of the IBIN MAGID, to examine the possibility of its reuse or reoperation, and to search for the method of its repair and rehabilitation together with the estimation of the capacity of local repair facilities.

3-2 Necessity of The Study (of The Fisheries Training Vessel)

As the fisheries is very important for the country as described in previous section, the role that the IBIN MAGID would have played for its development was expected not only for the training of fishermen and the resources survey, but also for the catch of adult fishes, the water stocking and so on in the activities of the Aquaculture Research Center, which was granted to the country in December, 1987 from the Government of Japan.

Therefore, the rehabilitation of the vessel is an immediate necessity for the country. Accordingly, effective and reasonable restoring method of the vessel is extremely important.

3-3 Damage Condition

The vessel had been moored at a port since January, 1986, then it was gradually repaired and maintained including the double lining of the top deck steel plate of the wheel house (because of material wear) and other works conducted just before the said accident by the National Dockyard in Aden.

Around 8:30 in the morning, May 24, 1987, a dock worker, during his welding work of the starboard aft side of the wheel house top deck, found fire and smoke coming from the top lining of the captain room's ceiling. Immediately, dock workers and crew members of the vessel fought the fire with foam extinguishers provided in the vessel and with help of the watering of firefighters. The fire was extinguished after about 30 minutes.

Since the fire originated on the ceiling area, the damage was limited to the inside of the wheel house (including the captain's room) even though the fire continued 30 minutes. The following work is required for the restoration of the vessel.

Moreover, as the top deck where the fire originated was left as it was after the accident, it requires full lining. Even in the present condition the vessel is possible to sail for a very short time.

[Detail damages and countermeasures]

Top deck steel plate:	Requires full lining again.
Steel wall:	Available by rust removing and painting.
Frame & beam:	Available by rust removing and painting.
Duct:	As it is originally a very thin plate and is now suffering from heavy rust, it requires replacement with new one.
Insulation:	Requires replacement with new one, except for the front low area.
Inside lining:	Although the area from the floor up to 5 to 60 cm above is not damaged, it requires full lining by the cause of work facility.
Window:	Scuttles of captain's room and clear view screen must be replaced with new ones. Windows glasses broken during the fire fighting must be replaced with new

ones. Other windows are required to be inspected for the state of packing whether replacement is necessary or not.

Electric wires and appliances: Wires running from the floor to the ceiling must be fully replaced with new ones. Moreover, electric appliances connected with such wires, such as lights, plugs, etc. also must be fully replaced.

[Equipment]

- a. Steering stand: Inspection by overhaul, maintenance of gyrocompass and rehabilitation and maintenance of auto pilot system.
- b. Rudder angle indicator: Although it presently operates, it requires replacement with new one because of its surface being burnt.
- c. Main engine control panel: Inspection by overhaul
- d. Sonar: Replacement of switch box and transmitter, and maintenance of other parts
- e. Radar: Replacement of rectifier and wires connecting the radar body and the scanner and general inspection and maintenance
- f. Magnetic compass: Requires replacement because of burning.
- g. Clear view screen: Requires replacement of the windows and switchboxes because of burning.
- h. Anemoscope and anemometer: Requires replacement because of burning of indicator, and if necessary including transmitter.
- i. SSB transceiver: Replacement because of burning
- j. Antenna changer: Replacement because of burning
- k. Direction finder: Replacement because of burning

- | | |
|--------------------------------|--|
| l. Wireless control panel: | Replacement because of burning |
| m. VHF Radio telephone: | Replacement because of burning |
| n. No. 1 Fish finder: | Full replacement including transmitter-receiver |
| o. No. 2 Fish finder: | Full replacement including transmitter-receiver |
| p. Net recorder: | Replacement because of burning |
| q. Air horn and motor siren: | Replacement of controller |
| r. Thermometer for sea water: | Replacement because of burning |
| s. Telephone (to engine room): | Replacement because of burning |
| t. Telephone (to wheel house): | Replacement because of burning |
| u. Switch board: | Cleaning of terminal plates and replacement of relays, pilot lamps, etc. |
| v. Public addresser: | Maintenance |
| w. Chart table light: | Replacement |
| x. Barometer: | Replacement |
| y. Clock: | Replacement |
| z. Binocular and box: | Replacement |
| aa. SOS buoy: | Replacement |
| bb. Clinometer: | Replacement |
| cc. Chronometer: | Replacement |
| dd. Telegraph: | Replacement |
| ee. Chart table top board: | Replacement |

3-4 General Conditions of The Vessel

As the vessel is afloat, the conditions of the area under the water line including the propeller are unknown. However, the other areas of the hull outside and inside other than those damaged in the accident are in good state. Equally, the functioning conditions of the engine and relating parts are considered good according to the maintenance record until present and the hearing of crew members. Therefore, the vessel is very well maintained when taking into account the ship's age and the severe natural conditions of high temperature and humidity.

However, the vessel has never been overhauled in full scale since its construction. If a long term operation for 10 years from now on is expected for the vessel, the following work is necessary in addition to repairing the areas damaged in the accident.

[Hull]

Bottom and outside shell plating:	Sand blasting and painting, replacement of zinc anodes, plate thickness measuring
Anchor and anchor chain:	Throwing out, arrangement, cleaning, and measuring, replacement of two shackles length of each anchor, tar painting, marking and restoration
Rudder and rudder stock:	Removal of rudder, removal of rudder stock, measuring, replacement of defective bush and sleeve
Fuel oil, lubricant and fresh water tanks :	Opening, cleaning and inspection
Closing appliances:	Inspection of side window, hatch and water tight doors Particularly steel hatch and insulated hatch of No. 1 and 2 fish holds
Water drainage device:	Inspection by overhaul of storm valve
Steel deck:	Upper deck both outside exposed areas rust removing and composition painting
Wooden deck:	Double lining partial replacement
Deck machinery:	Inspection of windlass, winch, etc.
Fishing equipment:	Maintenance of quarter roller, eye plate, etc.
Fish hold:	Repair of sparling, rust removing and painting by dismantling cooling pipe, rust removing and painting of inside wall

Freezing equipment: Maintenance of hydraulic cylinder, replacement of ammonia hose and freezing pan

Living area: Maintenance of defective part

Piping for fresh and sea water and hydraulic system: Maintenance of defective part

Life saving and fire fighting equipment: Provide perfectly

[Machinery]

Propeller: Overhaul, maintenance of control mechanism, polishing of blade

Propeller shaft: Dismantling, replacement of bearing

Intermediate shaft and bearing: Inspection by overhaul

Bow thruster: Inspection by overhaul

Clutch: Inspection by overhaul

Main engine: Overhaul, replacement of bearing, bolts, etc.

Generator engine (for both No. 1 and No. 2): Overhaul, replacement of bearing, bolts, etc.

Refrigerator (for both No. 1 and No. 2): Overhaul, replacement of bearing, bolts, etc.

Air compressor (for both main and auxiliary): Overhaul

Auxiliary machines (pump and heat exchanger): Inspection by overhaul

Hydraulic pump and motor for fishing machinery on deck: Inspection by overhaul

Refrigeration equipment:	Inspection by overhaul and replacement of tube of ammonia condenser, inspection and replacement of defective part of ammonia piping, inspection and maintenance of protective equipment such as safety valve, etc.
Fresh water generator:	Replacement
Fresh and sea water piping:	Replacement of defective part
Air conditioner:	Inspection by overhaul
Mechanical ventilator:	Overhaul and maintenance of all ventilators
Protective equipment:	Inspection of safety devices for main and auxiliary engines and propeller shaft

[Electric]

Measuring of insulation of all electrical systems:	Repair of defective part
Generator (for both No. 1 and No. 2):	Overhaul, cleaning, insulation, drying, replacement of bearings
Refrigerator motor:	Overhaul, cleaning, insulation, drying, replacement of bearings
Main switch board :	Inspection of ACB, adjustment of all meters, tightening of terminal

3-5 Aden National Dockyard

The Aden National Dockyard is equipped with facilities at the level equivalent to middle class shipyards in Japan. They include a floating dock, slipways, cranes, machine tools, etc. The premises of this dockyard are sufficiently large for the work required.

However, although it has abundant steel materials and piping materials for repair in stock, it has almost no stock of electric wire, materials for wiring, wood materials, insulating materials, etc. It needs to buy such materials from abroad at any time when they are required, and such import takes 2 or 3 months.

The practical results of repairs of the said dockyard in the past 7 years are as shown below.

Repair of the vessels in Aden National Dockyard

Year	Dock		Afloat	
	Foreign vessels	Local vessels	Foreign vessels	Local vessels
1981	24	28		
1982	20	43		
1983	29	35		
1984	31	38		
1985	29	39		
1986	28	42	79	182
1987	41	53	73	173

3-6 Repair and rehabilitation plan

Two possibilities of the repair and rehabilitation works can be considered; one executed in Aden and the other in Japan.

(1) Execution in Aden

In this case, the Aden National Dockyard will be designated for the repair works as it is only one dock in the country. For some technical problems a team of experts are needed to be sent from Japan. The team will consist of the following members.

General supervisors	2 pers. x 60 days
Main and auxiliary engines overhaul	5 pers. x 45 days
Refrigeration equipment	2 pers. x 30 days
Wireless equipment and nautical instruments	3 pers. x 30 days
Joiner works	2 pers. x 30 days

The whole work term is estimated as about 6 months after the delivery of main materials and equipment. The above experts are also required to be dispatched in two stages; the preliminary stage and the final stage.

Consequently, if the works are executed with delay over 6 months, the number of trips and work days must be largely increased. In such a case, the estimation of costs for the work is very difficult.

(2) Execution in Japan

The work term is estimated as 30 to 45 days, and no technical problem is foreseen. Only one problem to be considered is the method for bringing and sending the vessel.

Concerning bringing it to Japan, the towing by another ship is not practicable due to its very high cost. Therefore, in this case it is required to seek a possibility for the self cruising. There are problems of the vessel's seaworthiness and the securing of crew members.

[Seaworthiness]

Although the vessel is now capable of short time cruising, it is not sufficient for making an ocean voyage (about 30 days) to Japan. The following preparations are needed.

- a) Supplement of the life saving equipment, of which the term of availability is now expired

- b) Maintenance of the life raft
- c) Maintenance and supplement of the fire fighting equipment (extinguishers)
- d) Arrangement of the wheel house and restoration of the chart table
- e) Temporary closing of broken windows in the wheel house
- f) Temporary closing of leaking area in the ceiling of the wheel house
- g) Restoration of lighting of the wheel house
- h) Restoration of the navigation lights
- i) Restoration of the motor siren
- j) Restoration of the radar
- k) Restoration of the direction finder
- l) Restoration of the telecommunication equipment at least necessary for cruising (including VHF and SSB)
- m) Bottom cleaning in dock or by diver

Regarding the items from j) to m), necessary materials and/or personnel are needed to be sent from Japan, but the other items may be executed in the the PDRY.

The supply of materials for the items a) and b) takes about 3 months because they should be brought from abroad. It is estimated also about one month for the other preparatory works.

[Crew members]

Actually, there are not enough crew members of the vessel who are qualified for ocean-going, nor can found such members be among the staff of the Ministry of Fish Wealth.

Therefore, it is necessary to ask the other offices like the Port Authority for members with qualification. No specific problem is foreseen in such securing. However, even in positive cases, thus secured members are not familiar to the vessel and/or the cruising route, and the dispatch of some assistants to the captain and the chief engineer may be required. As another possibility, bringing of the vessel may be entrusted to a specialized company.

CHAPTER 4 IMPLEMENTATION SYSTEM

4-1 Management and Operation System

The management and operation of the vessel is under the control of the Ministry of Fish Wealth in the PDRY. The practical management and operation of the vessel was originally made by the Research Department, which is a division of the same Ministry, but afterward it was converted to the Marine Science & Research Resources Center, which is an organization directly controlled by the same Ministry and founded in 1983.

The same center is also the managing organization of the Aquaculture Research Center which was granted by the Government of Japan in December, 1987.

Since the delivery of the vessel to the country, it had been based at Aden and operated by the country's staff with the guidance of three JICA's experts (captain, chief engineer, and first mate) and an expert for seine fishing. A series of operations of totalling 320 days in 15 voyages was conducted in the first two years for bottom trawling, seine and bottom long lining within the country's whole sea area from the PDRY coast to the sea around the Sokotra Islands. In those voyages the fishing ground survey and the training of fishermen were practiced. This rate of operation is considerably high compared to local fishing boats or other training vessels of similar type.

Accordingly, the catch of the vessel increased steeply, so that in the second year of operation it was as much as five times of that in the first year. At the same time, the techniques of crew members also jumped up considerably to the level that the Yemenite members who could not operate the vessel at all at the beginning were able to navigate the vessel by themselves for ordinary voyages at the end of

the second year.

However, even though they made a rapid progress in the techniques, it was impossible for them to acquire the technical know-how to train the next generation of fishermen within such a short time. Accordingly, the technical assistance for the jobs of captain and chief engineer had been continued for the operation of the vessel.

The results obtained in the last one year (November, 1984 to November, 1985) were the operation of 93 days in 7 voyages, though the dockwork were executed from the end of June to the end of September 1985, which reduced the total number of days of operation. Equally in the same period demonstration navigation was practiced for the training of students of Aden University.

The results were not indicated by figures like the catch, but they were highly appreciated by organizations concerned, especially by the FAO. Adding to the above, it was observed from excellent maintenance conditions of hull and machinery of the vessel that serious and eager efforts of the crew members and the other people concerned of the country together with good guidance of the Japanese experts had been made for the good maintenance of the vessel also.

4-2 Maintenance and Management Program

As described in the previous section, the vessel has been periodically maintained since its delivery to the country and shows relatively good conditions.

Proper budgets were allotted to the purchase of spare parts and the maintenance of the vessel. Moreover, the vessel is rather well taken care of by the crew members.

The budget for 1989 is estimated to be about 10% more than that of 1988. It is considered that the budget in its total amount and that

for maintenance will be provided at similar level for forthcoming years. Therefore, the vessel will be able to operate in good condition for more 10 years with the same periodical maintenance as was made until present, if a full scale overhaul including the hull and the machinery is executed by the program in question.

CHAPTER 5 EVALUATION

In the PDRY, the fisheries is a very important industry for securing protein resources and obtaining foreign currencies.

When considering the development of the fisheries in the country, the contribution that the vessel will bring is very important for the education of fishermen, the development of modern fisheries and the survey of resources. Moreover, the vessel is expected to help the activities of the Aquaculture Research Center, which was granted to the country in December, 1987 by the Government of Japan, in the catch of adult fishes, the water stocking and so on.

Regarding the management and operation of the vessel, the vessel had been well maintained and managed with the cooperation of the JICA's experts. Also the country made efforts for restarting the operation of the vessel with proper budget and program.

However, during the execution of maintenance, an unexpected fire broke out in May, 1987. The Government of the country worries about the acquisition of materials and equipment for the rehabilitation and the enormous cost and work for the same.

Consequently, it is clear that the rehabilitation of the vessel will render many services to the fisheries of the country and contribute to the promotion of friendly relations between the country and Japan.

CHAPTER 6 CONCLUSION

The study conducted this time confirmed the following matters:

- 1 The role that the vessel plays for the country is extremely important.
- 2 The management and operation system for the vessel by the country is appreciable.
- 3 The damage to the vessel is relatively light. The matters other than damaged are generally well maintained allowing it to be brought to Japan with a little maintenance work.
- 4 The rehabilitation of the vessel is technically possible.
- 5 A full scale overhaul is required for the operation of the vessel for 10 further years in good condition.
- 6 The repair work in Aden presents a certain technical problem.

As a result, in order to execute a complete rehabilitation, it is required that a certain work necessary at minimum will be made at Aden and the main work will be made in Japan where the vessel was constructed.

Moreover, in case the said rehabilitation will be implemented, in order to operate the vessel effectively for the time after its implementation, the following cares shall be taken adding to the maintenance work made since the start of operation.

- 1) The dock work including careful rust removing and painting and sure replacement of zinc anodes to resist against the electrolytic corrosion shall be made every year.
- 2) The overhaul repair shall be made every four years in compliance with the regulations of the Association of Ship Classification.

3) Prior to the execution of the above works, the preparation for appropriate budget shall be made for maintenance work and for the supply of necessary parts and materials with the accurate specifications based upon the careful judgement of the condition of the vessel from ordinary navigation.

On the occasion of the study, Mr. Abdul W. Sharaf, Deputy Minister of Fish Wealth, who is responsible for the implementation of the program expressed his desire that the rehabilitation program of the IBIN MAGID be implemented by the grant aid of the Government of Japan. The study team assured him that it would convey his will to the Government of Japan after its return to Japan.

Attachment 1 Member list of the Team

RESPONSIBLE FOR	NAME	OFFICE
Leader	Mr. Masaaki SHIMAMURA	Deputy Director, Fishing Boat Div., Fisheries Agency, Ministry of Agriculture, Forestry and Fisheries.
Grant Aid Policy	Ms. Mayuri JIBIKI	Official, Second Middle East Div., Middle East and African Affairs bureau, Ministry of Foreign Affairs.
Follow up Cooperation	Mr. Sumio AOKI	Project Manager, Grant Aid Project Management Department, Japan International Cooperation Agency (JICA).
Machinery Design	Mr. Tsuyoshi KANNO	General Manager, Technical Department, Nichiro Gyogyo Kaisha, Ltd.
Hull and Electric Design	Mr. Rizo TSURUHAMI	Deputy Manager, Technical Department, Nichiro Gyogyo Kaisha, Ltd.

Attachment 2 Schedule of The Study

NUMBER OF DAYS	DATE	DAY	WORK
1	Apr. 8, 1988	Fri	Leave NARITA(21:00-AF273).
2	9	Sat	Arrive at PARIS(06:45).
3	10	Sun	Leave PARIS(10:20-AF491), arrive at ADEN(22:40).
4	11	Mon	Visit Japanese Embassy and explain summary of Study. Visit and discuss with Ministry of Fish Wealth and explain INCEPTION REPORT. Visit and survey IBIN MAGID. Visit Aquaculture Research Center.
5	12	Tue	Visit, discuss with and survey ADEN NATIONAL DOCKYARD. Visit Minister of Ministry of Fish Wealth. Visit and survey IBIN MAGID.
6	13	Wed	Attend opening ceremony of Aquaculture Research Center Visit and survey IBIN MAGID.
7	14	Thu	Visit, survey and discuss with Ministry of Fish Wealth, Port Authority, ADEN DOCKYARD and IBIN MAGID.
8	15	Fri	Arrange data and discuss within the Team.
9	16	Sat	Visit and discuss with Ministry of Fish Wealth. Make a Minutes of Meeting and signing. Report and discuss with Japanese Embassy.
10	17	Sun	Collect data. Leave Aden(23:15-AF490).
11	18	Mon	Arrive at PARIS(07:15).
12	19	Tue	Leave PARIS(16:00-AF276).
13	20	Wed	Arrive at NARITA(10:50).

Attachment 3

List of Counterpart

Name	Status	Authority
Mr. Salem Mohammed Gobran	Ministry of Fish Wealth	Minister
Mr. Abdul W. Sharaf		Deputy Minister
Dr. Abdul Bari Fakhri		Assistant Deputy Minister
Mr. Anwer Ahmed Khan		Senior Project Officer
Mr. Abdulla Ghaddaf	Marine Science & Research Resources Center	Director
Mr. Qais Ahmed Saeed	"MV IBTN MAGID"	Captain
Mr. Shoqi Ahmed		Second Officer
Mr. Yahya Ali		Chief Engineer
Mr. Nacer Ali		First Engineer
Mr. Saeed Abdulla Hussain Yafai	Port Office, Yemen Port Authority	Port Officer and Director of Marine Affairs
Dr. Ing. Salih Almontaser	National Dockyard Co.	General Manager
Mr. Shigeru Kurosawa	Embassy of Japan in PDRY	Charge D'affairs
Mr. Hiroyuki Seki	Embassy of Japan in Saudi Arabia	First Secretary

MINUTES OF MEETING
ON
THE FOLLOW UP STUDY
FOR
THE FISHERIES TRAINING PROJECT
IN
THE PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

In response to the request made by the Government of the People's Democratic Republic of Yemen for assistance in studying the feasibility of reutilization on the fisheries training vessel which was donated in 1977 under the Japanese grant aid scheme, (IBIN MAGID) the Government of Japan has sent, through the Japan International Cooperation Agency (JICA), a study team headed by Mr. Masaaki Shimamura, Deputy Director, Fishing Boat Division, Fisheries Agency, to conduct the follow up study from April 10th to April 17th, 1988.

The team held a series of discussions and exchanged views with the relevant authorities of the Government of the People's Democratic Republic of Yemen, represented by the Ministry of Fishwealht.

Followings are discussed at the meeting.

1. Major points of understanding by both sides

1) The objectives of the study

The objectives of the study are to investigate on the possibility of reentering of the fishery training vessel "IBIN MAGID" for its services and reutilizing and to study the necessity and appropriateness of rehabilitation after the examination of damaged conditions in detail, ascertainment of ability of local repair yards and to study repair way.

2) The Scope of the study

The scope of the study are as follows.

- a) To confirm the contents of the request by the Government of People's Democratic Republic of Yemen.
- b) To investigate on circumstances of utilization and management system before suffering fire damage.
- c) To examine conditions of damage.
- d) To investigate on technical matters of the vessel in general.
- e) To make the repair specification including repair way of damaged parts.
- f) To make the repair specification including repair way of other than damaged parts.

M. S.

- g) To ascertain the ability of local repair yards in Aden.
- h) To investigate on training plan and management/operation system for the future.

3) The result of the study

The team will analyze the result of study and finalize it in the report.

The report will be submitted to the Government of the People's Democratic Republic of Yemen through Embassy of Japan in the beginning of June, 1988.

2. Request made by the Government of the People's Democratic Republic of Yemen.

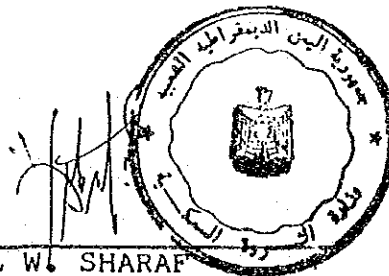
The Government of People's Democratic Republic of Yemen appreciated to the Government of Japan for conducting study on the damaged fishery training vessel (IBIN MAGID) and requested the rehabilitation of the vessel in a scheme of Japanese grant aid, in case the possibility of reutilization would be proved after the result of the study.

The team promised to convey above request to the Government of Japan.

April 16, 1988

M. Shimamura

MASAAKI SHIMAMURA
LEADER
FOLLOW UP STUDY TEAM
JAPAN INTERNATIONAL
COOPERATION AGENCY (JICA)



ABDUL W. SHARAF
DEPUTY MINISTER
MINISTRY OF FISH WEALTH
PEOPLE'S DEMOCRATIC
REPUBLIC OF YEMEN

CHECK LIST FOR THE VESSEL

ITEM			Appraisal	Remarks
(Hull)				
1	Shell	Paint Rust Foul Damage Wear down	L L L L G	Not checked below water line
2	Deck(steel)	Paint Rust Damage Wear down	L L G H	Compass deck to be renewed. Upper deck (AP-Fr13, both sides) to be repaired.
3	Deck(wood)	Wear down	L	Covering to be renewed partially.
4	Bulwark	Damage Corrosion	G G	
5	Super structure	Paint Damage	L G	
6	Insulation & lining	Damage	H	Fire damaged part only.
7	Internal frames, etc.	Corrosion	G	
8	Accommodation	In general	L	
9	Fish hold	In general	H	Cooling coils and wooden lining to be fixed.
10	Engine room	In general	G	
11	Shaft tunnel	In general	G	
12	Mast, gallows, etc.	In general	L	

Appraisal mark : "G"; Good , "H"; Heavy repair , "L"; Light repair , "R"; Replace

ITEM			Appraisal	Remarks
(Machinery)				
1	Main engine	Visual inspection Running conditions (by hearing)	G G	Normal maintenance is necessary.
2	Aux. engine & generator	Visual inspection Running conditions (by hearing)	G G	Normal maintenance is necessary.
3	Refrigeration equipments	Visual inspection Running conditions (by hearing)	H G	Piping and insulation to be renewed partially.
4	Hydraulic oil equipments	Visual inspection Running conditions (by hearing)	L G	Piping and joint to be renewed partially.
5	Other machineries including electric motors	In general	L	Normal maintenance is necessary.

Appraisal mark : "G";Good , "H";Heavy repair , "L";Light repair , "R";Replace

	ITEM	Appraisal	Remarks
	(Equipments in wheel house--check conditions)		
1	Steering stand	H	To include GYRO COMPASS
2	Rudder angle indicator	R	
3	M/E remote control stand	L	
4	Sonar display unit	L	
5	Sonar recorder unit	L	
6	Sonar switch box	R	
7	Sonar transmitter	R	
8	Radar indicator	H	
9	Radar rectifier	R	
10	Magnetic compass	R	
11	Switch box for C.V.S.	R	
12	Clear view screen	R	
13	Wind direction & speed indicator	R	
14	SSB Transceiver	R	
15	Antenna changer	R	
16	Direction finder	R	

Appraisal mark : "G";Good , "H";Heavy repair , "L";Light repair , "R";Replace

	ITEM	Appraisal	Remarks
17	JB for direction finder	R	
18	JB for direction finder	R	
19	SP for direction finder	R	
20	Wireless control board	R	
21	VHF Transceiver	R	
22	Power unit for VHF	R	
23	SP for SSB	R	
24	Induction protector	R	
25	No.2 fish finder	R	
26	AVR for No.2 fish finder	R	
27	Transmitter for No.2 fish finder	R	
28	No.1 fish finder	R	
29	AVR for No.1 fish finder	R	
30	Transmitter for No.1 fish finder	R	
31	Net recorder	R	
32	Air typhone & motor siren controller	R	

Appraisalmark : "G";Good , "H";Heavy repair , "L";Light repair , "R";Replac

	ITEM	Appraisal	Remarks
33	PB switch for air typhone & motor siren	R	
34	Sea water thermometer indicator	R	
35	Inboard telephone (E/R)	R	
36	Inboard telephone (steering room)	R	
37	W/H group dist. board	H	
38	Public addressor	L	
39	SP for public addressor	R	
40	Recep. for microphone	R	
41	Chart table light	R	
42	Barometer	R	
43	Clock	R	
44	Binocular box	R	
45	SOS buoy	R	
46	Clinometer	R	
47	Chronometer	R	
48	Ship log receiver	R	

Appraisal mark : "G";Good , "H";Heavy repair , "L";Light repair , "R";Repair

ITEM		Appraisal	Remarks
(Other equipments--conditions)			
1	Fishing equipments	L	Hydraulic equipments to be maintained.
2	Fishing gear	L	Rollers and blocks to be overhauled.
3	Boats	L	
4	Life saving appliances	R	Almost of equipments expired Feb/88.
5	Fire fighting apparatus	L	

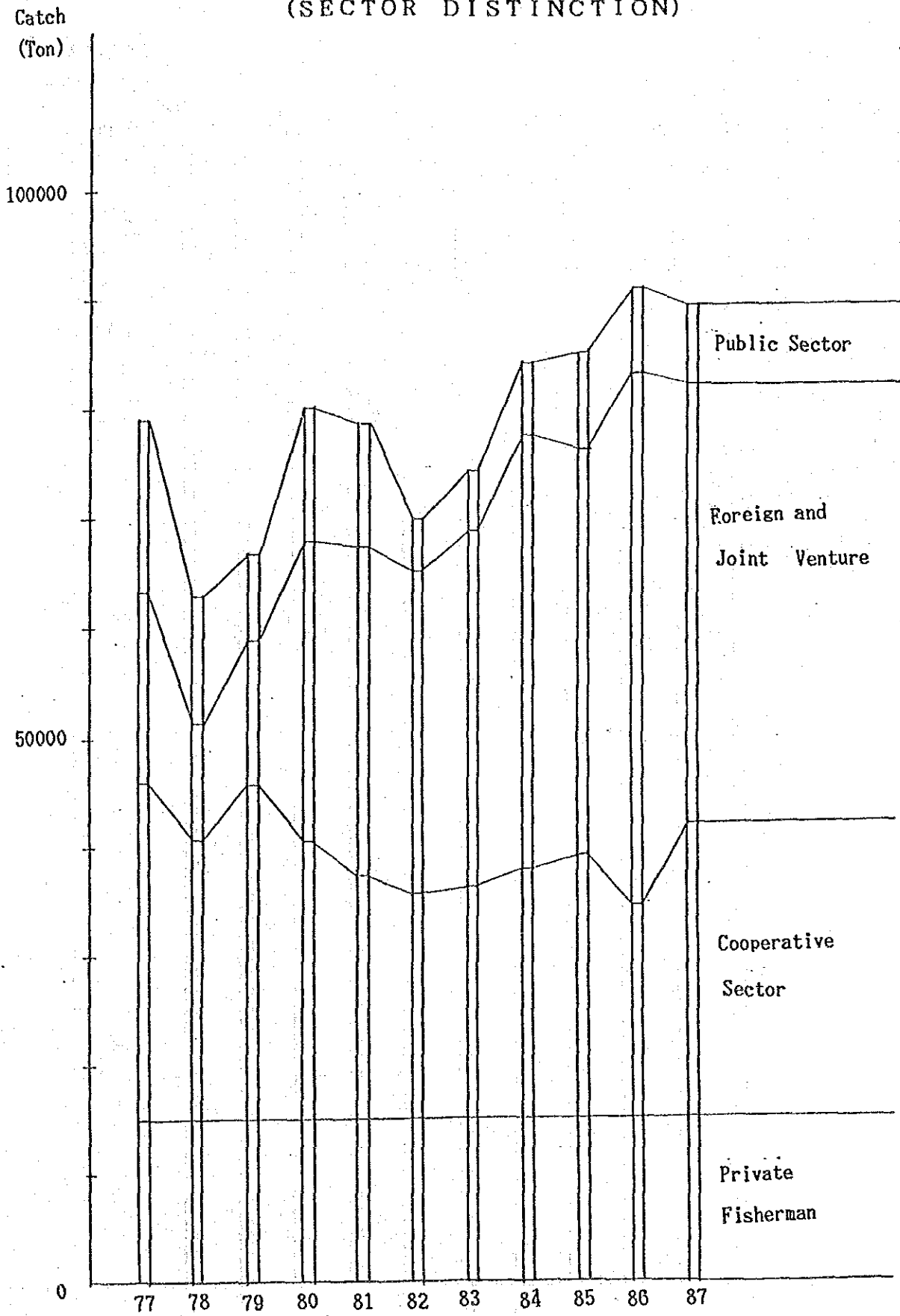
Appraisal mark : "G";Good , "H";Heavy repair , "L";Light repair , "R";Replace

Attachment 6 CHECK LIST FOR REPAIR FACILITY

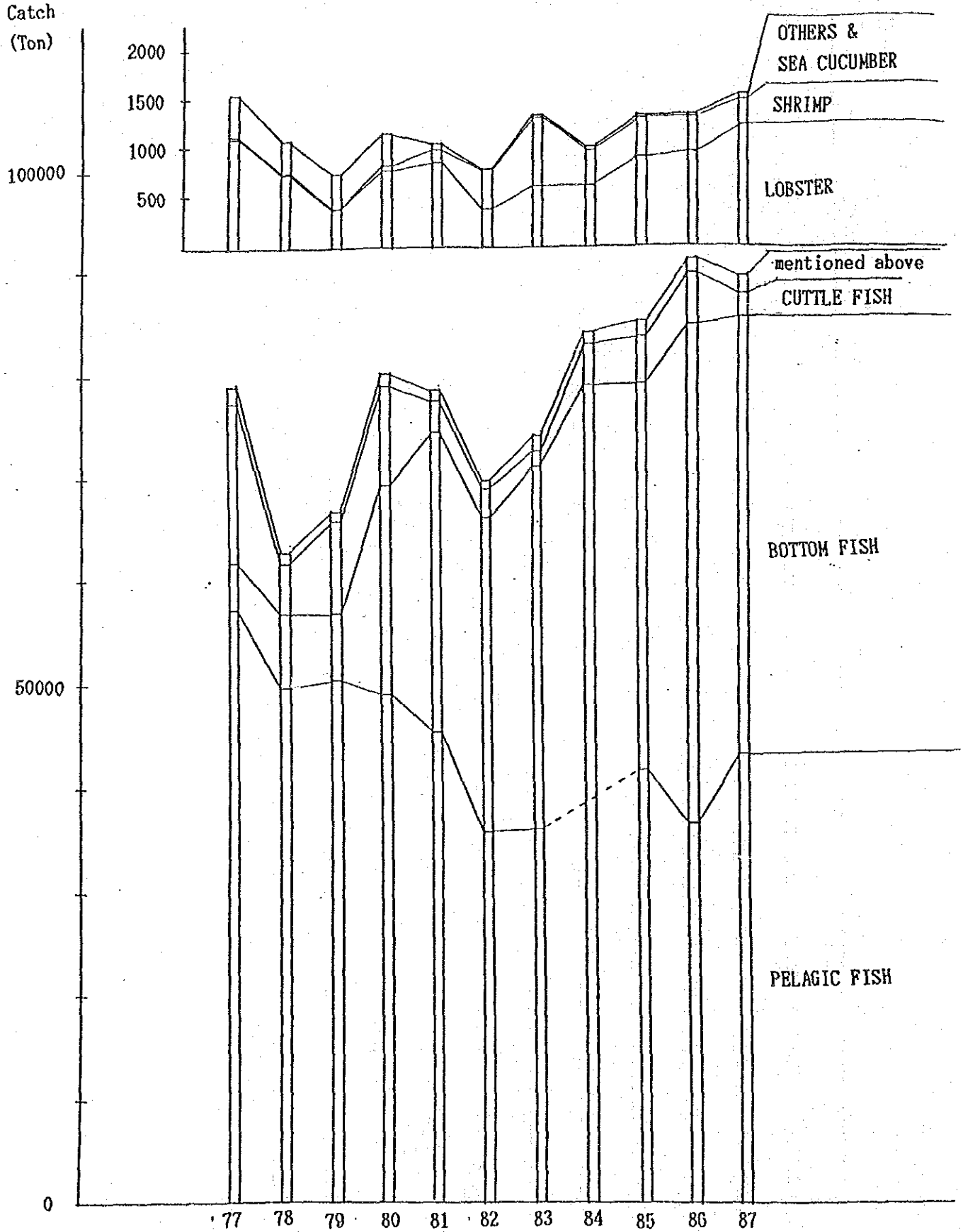
ITEM		Appraisal	remarks
(Aden Dockyard)			
1	Dry dock	A	
2	Management system	A	
3	Actual repairing result	A	
4	Steel work Engineers/workers	I	70 peoples
5	Electric Engineers/workers	I	20 peoples
6	Electronics Engineers/workers	I	None
7	Machinery Engineers/workers	A	58 peoples
8	Crane etc.	A	
9	Instruments		
	Sandblasting	A	
	Lathe	A	
	Drilling machine	A	
	Milling machine	A	
	Boring machine	A	
	Shaping machine	A	
	Grinder	A	
	Electric welder	A	
	Gas welder	A	
Pipe bender	A		
etc.			
10	Power supply system	A	

Appraisal mark : "A";Adequate , "I";Inadequate

CATCH AMOUNT (SECTOR DISTINCTION)



CATCH AMOUNT
(FISH KIND DISTINCTION)



Attachment 9

AMOUNT OF CATCH 1977

Sector	Kind							TONS
		Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		57080	4792	15528	1121	19	448	78986
Public Sector Sub total		10631	868	3880	202	19	93	15693
Yemen Fish Meal Co.		9087	---	---	---	---	---	9087
Yemen Fishing Co.		---	868	3880	41	19	93	4901
Coastal Fishing Co.		1544	---	---	161	---	---	1705
Foreign and Joint Venture - Sub total		---	3924	11648	919	---	353	16844
Yemen-Soviet Expedition		---	104	1825	919	---	---	2848
Nichiro Co.		---	3820	9823	---	---	353	13996
Cooperative Sector		25634	---	---	---	---	---	31449
Private Fisherman		15000	---	---	---	---	---	15000

AMOUNT OF CATCH 1978

Sector	Kind							TONS
		Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		49816	6949	4987	739	11	296	62798
Public Sector Sub total		9182	1053	880	183	11	35	11344
Yemen Fish Meal Co.		7579	---	---	---	---	---	7579
Yemen Fishing Co.		---	1053	880	37	11	35	2016
Coastal Fishing Co.		1603	---	---	146	---	---	1749
Foreign and Joint Venture - Sub total		---	5896	4107	556	---	261	10820
Yemen-Soviet Expedition		---	119	1262	556	---	---	1937
Nichiro Co.		---	4349	2423	---	---	199	6971
Telco Co.		---	1428	422	---	---	62	1912
Cooperative Sector		25634	---	---	---	---	---	25634
Private Fisherman		15000	---	---	---	---	---	15000

AMOUNT OF CATCH 1979

Sector	Kind						TONS	
		Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		50555	6285	9017	387	5	351	66600
Public Sector		4784	1296	1600	131	5	---	7816
Sub total								3970
Yemen Fish Meal Co.		3970	---	---	---	---	---	3970
Yemen Fishing Co.		---	1296	1600	29	5	---	2930
Coastal Fishing Co.		814	---	---	102	---	---	916
Foreign and Joint Venture - Sub total		---	4989	7417	256	---	351	13013
Yemen-Soviet Expedition		---	1411	953	256	---	---	2620
Hichiro Co.		---	2135	4725	---	---	333	7193
Taiyo Co.		---	1443	1739	---	---	18	3200
Cooperative Sector		30771	---	---	---	---	---	30771
Private Fisherman		15000	---	---	---	---	---	15000

AMOUNT OF CATCH 1980

Sector	Kind						TONS	
		Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		49159	20316	9019	785	59	332	80250
Public Sector		8722	1187	2106	339	19	81	12434
Sub total								8120
Yemen Fish Meal Co.		8120	---	---	---	---	---	8120
Yemen Fishing Co.		---	1187	2106	108	19	81	3481
Coastal Fishing Co.		602	---	---	231	---	---	833
Foreign and Joint Venture - Sub total		---	19149	7513	426	40	251	27379
Yemen-Soviet Expedition		---	2655	2314	426	40	---	5435
Hichiro Co.		---	792	2354	---	---	203	3349
Taiyo Co.		---	532	1615	---	---	48	2195
Soviet		---	15170	1230	---	---	---	16400
Cooperative Sector		25437	---	---	---	---	---	25437
Private Fisherman		15000	---	---	---	---	---	15000

AMOUNT OF CATCH 1981

Sector	Kind						TONS	
		Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		45625	28974	2977	851	133	66	78626
Public Sector		8377	1693	804	355	11	66	11306
Sub total								
Yemen Fish Meal Co.		8104	---	---	---	---	---	8104
Yemen Fishing Co.		---	1693	804	177	11	---	2685
Coastal Fishing Co.		378	---	---	178	---	66	517
Foreign and Joint		---	27281	2173	496	122	---	30072
Venture - Sub total								
Yemen-Soviet		---	2347	663	496	122	---	3618
Expedition								
Nichiro Co.		---	1104	636	---	---	---	1740
Taiyo Co.		---	461	421	---	---	---	882
Soviet		---	23369	463	---	---	---	23832
Cooperative Sector		22248	---	---	---	---	---	22248
Private Fisherman		15000	---	---	---	---	---	15000

AMOUNT OF CATCH 1982

Sector	Kind						TONS	
		Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		35826	30341	2839	396	388	10	69800
Public Sector		378	2792	1467	183	12	10	4842
Sub total								
Yemen Fishing Co.		---	2792	1467	10	---	---	4269
Coastal Fishing Co.		378	---	---	173	12	10	573
Foreign and Joint		---	27640	1372	121	376	---	29418
Venture - Sub total								
Yemen-Soviet		---	1382	783	121	376	---	2662
Expedition								
Soviet		---	26167	689	---	---	---	26756
Cooperative Sector		20148	---	---	92	---	---	20540
Private Fisherman		15000	---	---	---	---	---	15000

AMOUNT OF CATCH 1983

Sector	Kind						TONS	
		Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		36280	34876	1627	634	686	21	74124
Public Sector		209	3720	1030	317	188	21	5485
Sub total								
Yemen Fishing Co.		---	3720	1030	33	187	---	4970
Coastal Fishing Co.		209	---	---	284	1	21	515
Foreign and Joint		---	31156	597	234	498	---	32486
Venture - Sub total								
Yemen-Soviet		---	1817	499	234	498	---	3048
Expedition		---						
Soviet		---	29339	98	---	---	---	29437
Cooperative Sector		21071	---	---	83	---	---	21154
Private Fisherman		15000	---	---	---	---	---	15000

AMOUNT OF CATCH 1984

Sector	Kind						TONS	
		Pelagic Fish & Bottom Fish		Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		79275	---	3836	629	365	22	84127
Public Sector		4395	---	1788	371	7	22	6583
Sub total								
Yemen Fishing Co.		3730	---	1788	---	7	---	5526
Coastal Fishing Co.		665	---	---	371	---	22	1058
Foreign and Joint		37253	---	2048	119	358	---	39778
Venture - Sub total								
Yemen-Soviet		1080	---	1664	119	358	---	3191
Expedition								
Soviet		38193	---	394	---	---	---	38687
Cooperative Sector		22627	---	---	139	---	---	22766
Private Fisherman		15000	---	---	---	---	---	15000

AMOUNT OF CATCH 1985

Sector	Kind						TONS	
		Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		41758	37311	4700	931	390	28	85118
Public Sector		2663	3176	2553	486	13	28	8919
Sub total								
Yemen Fishing Co.		1746	3176	2553	7	13	---	7495
Coastal Fishing Co.		917	---	---	479	---	28	1424
Foreign and Joint		---	34135	2147	250	377	---	36909
Venture - Sub total								
Yemen-Soviet		---	33261	36	---	---	---	33297
Expedition		---	874	2111	250	377	---	3612
Soviet								
Cooperative Sector		24135	---	---	165	---	---	24290
Private Fisherman		14960	---	---	40	---	---	15000

AMOUNT OF CATCH 1986

Sector	Kind						TONS	
		Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		36617	48192	5031	994	353	29	91216
Public Sector		2307	2573	2463	503	7	29	7942
Sub total								
Yemen Fishing Co.		1521	2573	2463	---	7	---	6564
Coastal Fishing Co.		846	---	---	503	---	29	1378
Foreign and Joint		---	45619	2668	184	346	---	48717
Venture - Sub total								
Yemen-Soviet		---	43646	11	---	---	---	43657
Expedition		---	2073	2657	184	346	---	5160
Soviet								
Cooperative Sector		19250	---	---	307	---	---	19557
Private Fisherman		15000	---	---	---	---	---	15000

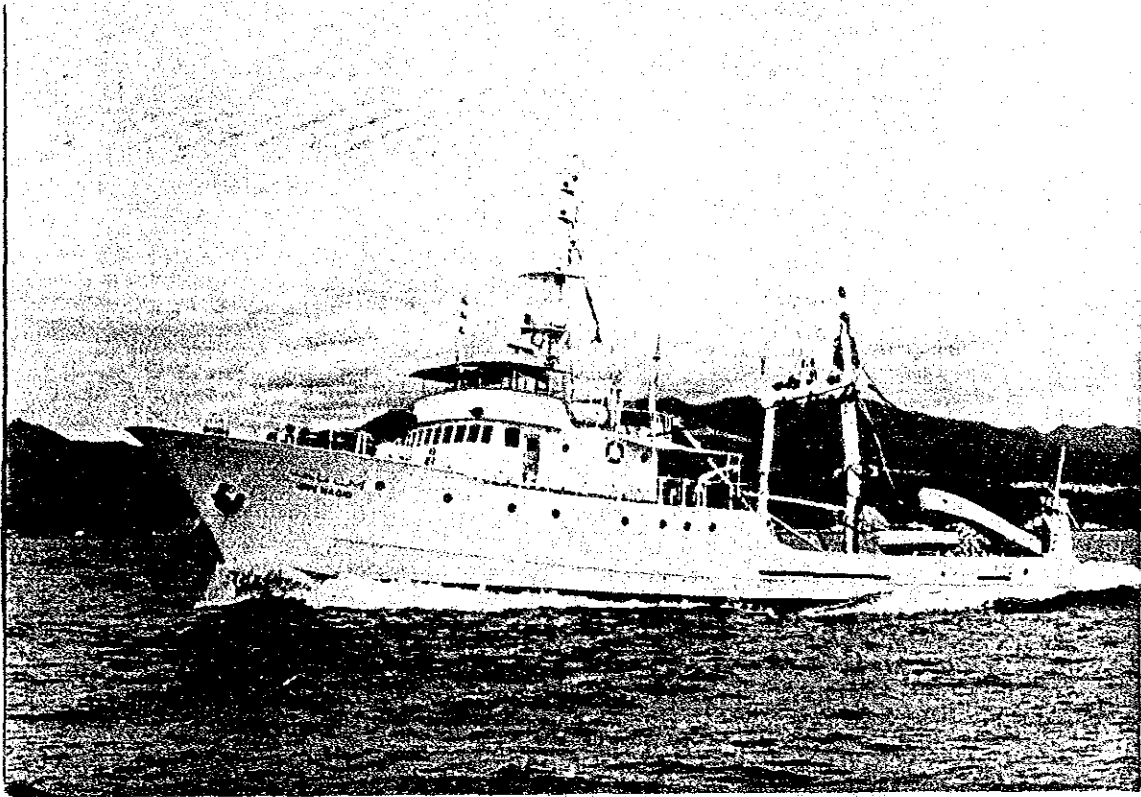
AMOUNT OF CATCH 1987

TONS

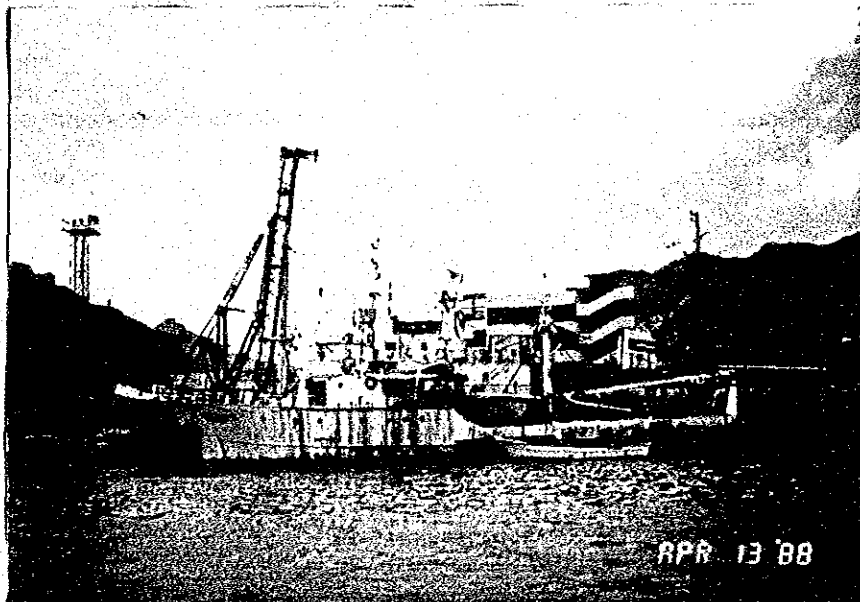
Sector	Kind	Pelagic Fish	Bottom Fish	Cuttle Fish	Lobster	Shrimp	Sea Cucumber	TOTAL
TOTAL		43323	42348	2211	1248	275	87	88492
Public Sector Sub total		1755	3758	987	607	6	87	7200
Yemen Fishing Co.		919	3758	987	30	6	---	5700
Coastal Fishing Co.		836	---	---	577	---	87	1500
Foreign and Joint Venture - Sub total		---	38590	1224	259	269	---	40342
Yemen-Soviet Expedition		---	2667	1211	259	269	---	4406
Soviet		---	35923	13	---	---	---	35936
Cooperative Sector		26568	---	---	382	---	---	26950
Private Fisherman		15000	---	---	---	---	---	15000

PHOTOGRAPH

MV IBIN MAGID at Sep., 1978

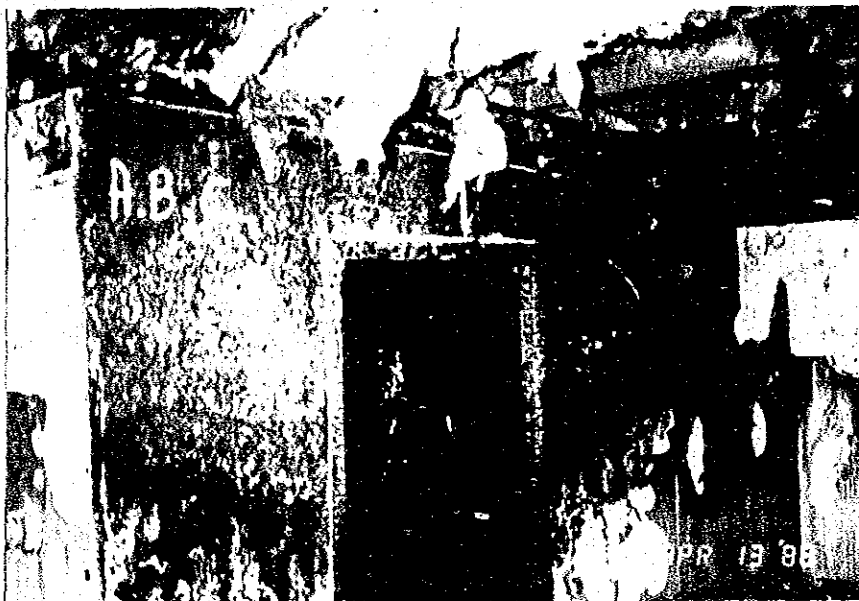


MV IBIN MAGID at Apr., 1988





Starboard
side door
of wheel
house



looking
to Captain
room



Ceiling of
Captain
room

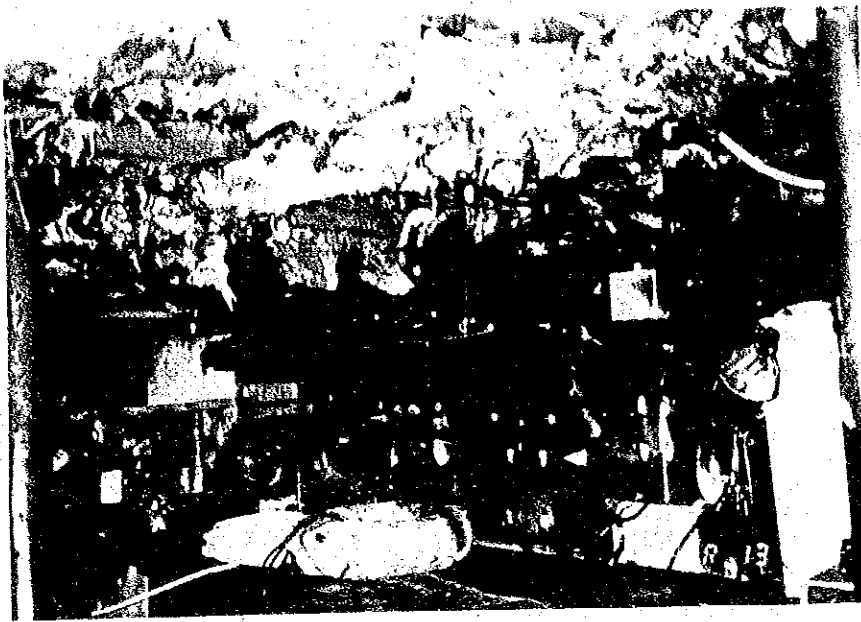


Chart
table



Burnt down
instruments

3
6
8
LIB