III. IMPLICATIONS

1. The year 1989 is the Polytechnic's most promising period. The intervening or interrupting factors towards the accomplishment of the Polytechnic's commitments are apparently surpassed with the government's financial support.

   An extension of the cooperation program is in order, the terms and scope being focused on the courses enumerated in Annex A, and the needed expertise, faculty training or scholarship and equipment.

2. The presence of JICA experts at the NMP Training Complex, Tacloban City is a moral boost for the agency.

3. The JICA-NMP Technical Cooperation Program will have to bear or last until such period when the number of enrollees at the NMP becomes sizeable enough and approximating the enrollee target specified in the 1985 Records of Discussions.

4. Faculty staff development programs and other forms of incentives are most consummate or fulfilling if monitored by both parties, each one witnessing positive changes, thereby bringing forth revitalized cooperation.

5. Since the four-year Cooperation Program was implemented amid scenario of changes and developments posing constraints to Philippine government, a catch-up or make-up period for the Philippine side necessitates an extension of the cooperation program.

IV. RECOMMENDATIONS

Based on the foregoing facts and their implications, the following recommendations are deemed most appropriate:

1. The duration and focus of the extension of the JICA-NMP Technical Cooperation program should be relative to the strength/weakness of the four-year implementation of said program. In particular, the thrust of extension should be anchored on the specific needs cited in Annexes A & B.

2. Extension of the cooperation program should consider, among others, the findings of the JICA Evaluation Mission expected in April 1989

3. Both parties need to confer and agree on terms and conditions most adaptable to specified/called for by the current needs and demands (i.e., fundings of JICA Evaluation Mission, suggestions from NMP training Staff, etc.).

4. In particular, improvements for sound technology transfer should be accentuated, the authorities concerned, the JICA experts, have to be well briefed in this regard.

5. Both parties should adhere to the flow of function and hierarchical relationships indicated in the organization chart, rightfully labelled, ORGANIZATION CHART OF THE JICA-NMP PROJECT Exhibit II

A more detailed Function Chart and a Personnel Chart should accompany the Organization Chart.

EXHIBIT-1

1. Below is a tabular presentation of JICA-NMP commitments as documented in the 1985 Records of Discussion and the extent of both governments' accomplishments.

JAPANESE GOVERNMENT		PHILIPPINE GOVERNMENT	
Commitments Per Records of Discussion	Accomplishments/ Constraints	Commitments Per Records of Discussion	Accomplishment Constraints
1. Dispatch of Japanese Experts	Japanese experts, batches I & II, arrived with correspond ing area of responsibility as well as privileges, exemptions and benefits, to train their Filipino counterparts till 1989.	1. Services of Philippine Counterpart and Administrative Personnel a. Director/President b. Coordinator (VP, training) c. Counterpart personnel in the field of: - upgrading course (Navigation and Engineering) - special course - maintenance d. Administrative personnel	The NMP Training Division has inadequate number of technical men who are assigned with specific module or teaching load (upgrading, special course and maintenance). They are bound by contracts to "ensure the retention of their services to fulfill the effective and successful transfer of technology. There are areas where Filipino technical counterparts are wanting like Global Positioning System, Rules of the Road, Radiotelephony, Marine Electronics etc. Likewise, administrativ personnel (administrative staff, clerks/typists, accountants, secretaries, drivers, & others) have been employed.. Secretaries/ typists have also been assigned to the Japanese experts.
2. Provision of Machinery and Equipment	With a $20M grant-aid from JICA, NMP was able to acquire the most modern, sophisticated simulators and training equipment, first of its kind ever in the Philippines. Moreover, the completed Phase I of the assistance program is marked by the construction of Navigation and Marine & Engineering Training Building, an administration building, generator building, and provision of various transportation facilities. There have been additional shipments of equipment since the turnover in June 1986. Records show that total amount of grant-aid has totalled ₱497,000,000.00.		

JAPANESE GOVERNMENT		PHILIPPINE GOVERNMENT	
Commitments Per Records of Discussion	Accomplishments/ Constraints	Commitments Per Records of Discussion	Accomplishment. Constraints
3. Training of Philippine Personnel in Japan	To date, sixteen scholars(four batches), have been sent to Japan for technical training. Said NMP faculty were received by the Japanese Covernment through the normal procedures under the Colombo Plan Technical Cooperation Scheme. For 1989. five (5) scholars proposed for technical training in Japan.	2. Counterpart Funding for Capital Outlay a. Land for NMP Training Center in Tacloban b. Building - classroom buildings - dormitories - executive houses - other buildings necessary for the implementation of Project other than those provided under the grant-aid scheme of the Government of Japan. - Training Building where Japanese experts' rooms are air-conditioned.	In 1980, a 17-hectare lot was acquired in Barangay Cabalawan, Tacloban Ctiy. For 1989, additional JICA donations include one (1) 20 KV generator & five (5) water tanks. Facilities for trainees include 200-bed dormitory, a canteen, four (4) staff houses and six (6) school buildings. The Japanese experts rooms are located in the Training and Admin. building air-conditions were part of of the Japanese donation while the NMP provides its maintenance.

JAPANESE GOVERNMENT		PHILIPPINE GOVERNMENT	
Commitments Per Records of Discussion	Accomplishments/ Constraints	Commitments Per Records of Discussion	Accomplishment Constraints
		c. Rooms - Chief Advisers' Room (air-conditioned) - Coordinator's Room/ Administrative office (air-conditioned) - Secretaries' Room - Conference Room (air-conditioned)	Accomplished accordingly
		d. Facilities necessary for the implementation of the Project such as supply of electricity and water, drainage, telephone, etc.	Sewerage and drainage system, ground levelling, beautification/landscaping activities, fabrication of instructional materials, and the like have been undertaken. Telephone services as well as electricity and water supply are among the convenience in NMP, Tacloban City, but at present these are temporarily out of order because of the typhoon in November 1988.
		e. Supply of replacement of machinery, equipment instrument, vehicles, tools, spare parts and other materials necessary for the implementation of the Project other than those provided through JICA.	

JAPANESE GOVERNMENT		PHILIPPINE GOVERNMENT	
Commitments Per Records of Discussion	Accomplishments/ Constraints	Commitments Per Records of Discussion	Accomplishment. Constraints
		f. Transportation facilities and travel allowance for the official travel of Japanese experts within the Philippine Republic of the Philippines.	Not accomplished
		g. Suitably furnished accommodations for the Japanese experts and their families.	Not accomplished
		h. Expenses pertinent to the acquisition of the equipment; - transportation of equipment within the Republic of the Philippines as well as for the installation, operation and maintenance thereof; - customs duties, internal taxes and any other charges, imposed on the equipment by the Republic of the Philippines.	

JAPANESE GOVERNMENT		PHILIPPINE GOVERNMENT	
Commitments Per Records of Discussion	Accomplishments/ Constraints	Commitments Per Records of Discussion	Accomplishment. Constraints
		All running expenses necessary for the implementation of the Project	a. Land - ₱ 1,904,710.00 b. Bldg.- 14,025,675.96 c. PAPs: Dorm - 10,000,000.00 P.Fence- 9,000,000.00 Site Dev.3,000,000.00 22,000,000.00 d.Repair of Ratings Dormitory 2,000,000.00 e.Furnitures Fixture, Equivalent 1,480,047.00 41,410,432.96

JAPANESE GOVERNMENT		PHILIPPINE GOVERNMENT	
Commitments Per Records of Discussion	Accomplishments/ Constraints	Commitments Per Records of Discussion	Accomplishment Constraints
4. Administration of the Project		4. Administration of the Project	
a. The Japanese Team Leader as the Chief Adviser, will provide necessary recommendation and advice on technical and administrative matters concerning the implementation of the Project to the Head of the Project and, if necessary to the Chairman of the Board of Trustees, NMP.	The Japanese Team Leader attended Board meetings when said advice on technical and administrative matters" was in order.	a. The chairman of the Board of Trustees, NMP, will bear overall responsibility for the implementation of the Project. b. The Director, NMP Training Center (President, NMP) as the Head of the Project, will be responsible for the technical and administrative matters of the Project.	The Chairman of the Board of Trustees has been kept abreast with developments of the Project. Through Board meetings, coordination with NMP, Manila and visits once in while at NMP Tacloban, he has manifested overall responsibility. The Polytechnic has been under the incumbency of the following: 1. Capt. BENJAMIN TAÑEDO- 1978-March 1987 2. Mr. LUIS G. PADILLA - March 1987-June 1988 3. Mr. ALFREDO C. ANTONIO - June 1988-Dec.1988 (OIC) 4. Capt. GEORGE M. PIMENTEL January 1989-present
b. The Japanese Experts will give necessary technical guidance and advice to the Philippine counterpart personnel on matters pertaining to the implementation of the Project.	Close monitoring/supervision in this regard has been made possible since both Japanese experts and their Philippine counterparts are in the Training Complex.		
c. For the effective and successful implementation of the Project, a Joint Committee will be established w/	Accomplished	c. For the effective and successful implementation of the Project, a Joint Committee will be established with the	

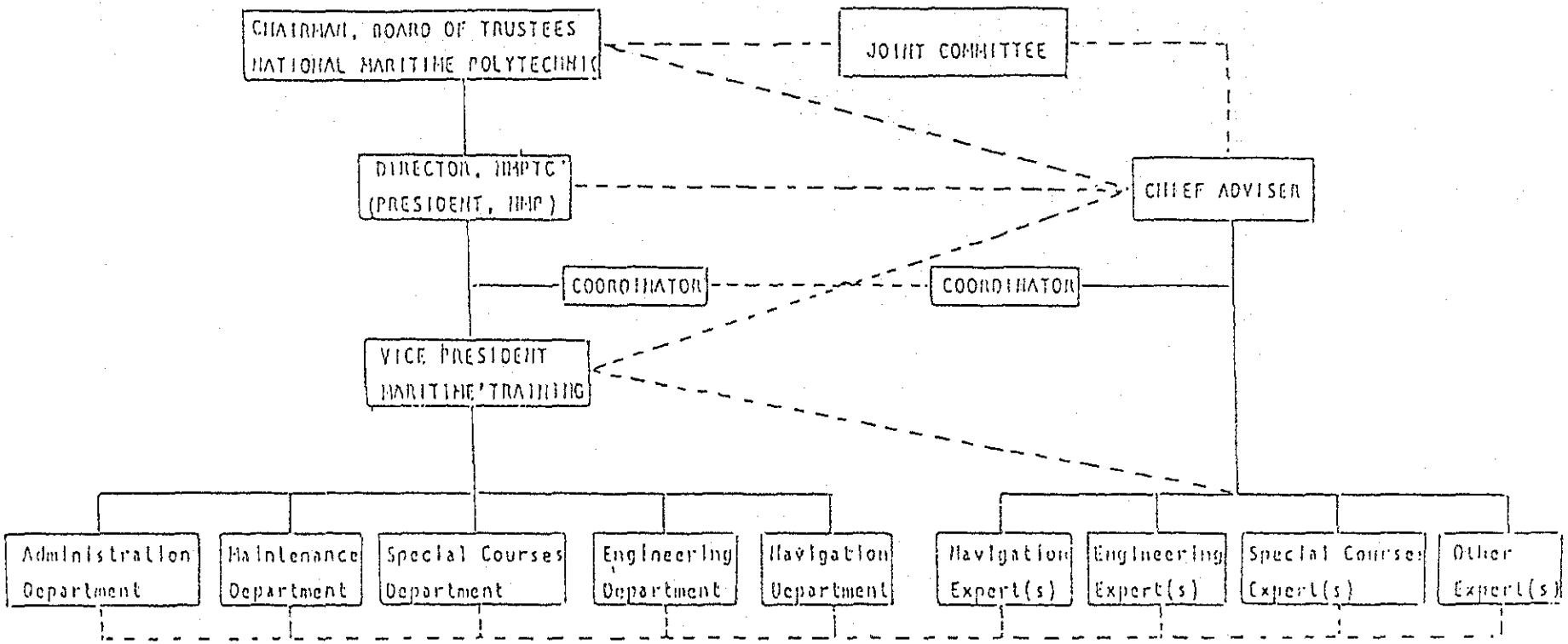
JAPANESE GOVERNMENT		PHILIPPINE GOVERNMENT	
Commitments Per Records of Discussion	Accomplishments/ Constraints	Commitments Per Records of Discussion	Accomplishment. Constraints
the function and composition as follows: Japanese Side: - Chief Adviser - Coordinator - Japanese experts designated by the Chief Adviser - Resident Representative of Manila office, JICA. - Personnel concerned with the Project to be dispatched by the JICA, if necessary. Note: Officials of the Embassy of Japan in the Republic of the Philippines may attend the Joint Committee as observers.	Accomplished The Japanese Embassy has been represented by Mr, Sato.	function and composition as follows: Chairman: Chairman of Board of Trustees, NMP. Philippine Side: - Director, NMP Training Center (President, NMP) - Representative of the National Economic and Development Authority (NEDA) - Personnel designated by the President, NMP, if necessary,	Accomplished The NMP has been represented by its VP's.

JAPANESE GOVERNMENT		PHILIPPINE GOVERNMENT	
Commitments Per Records of Discussion	Accomplishments/ Constraints	Commitments Per Records of Discussion	Accomplishment. Constraints
5. Claims Against Japanese Experts The Government of the Republic of the Philippines undertakes to bear claims, if any arises against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Republic of the Philippines except for those arising from their willful misconduct or gross negligence. Should any question arises in connection with the foregoing, the two Governments shall immediately consult with each other.	None	(Refer to the corresponding Japanese Commitment stated at the extreme left).	None
6. Mutual Consultation There will be mutual consultation between the two Governments on any major issues arising from,		(Refer to the corresponding Japanese Commitment stated at the extreme left).	

JAPANESE GOVERNMENT		PHILIPPINE GOVERNMENT	
Commitments Per Records of Discussion	Accomplishments/ Constraints	Commitments Per Records of Discussion	Accomplishment. Constraints
or in connection with the Document attached to the Records of Discussions.			
7. Term of Cooperation The duration of the technical cooperation for the project will be four (4) years from June 13, 1985. However there will be a general review by the authorities concerned of both Governments on the progress of the implementation of the Project during the second and/or third year of the cooperation period in order to evaluate whether the term and scope of technical cooperation should be modified.	There have been yearly visits by the Japanese Team to monitor the progress of the program. The latest of which was headed by Capt. KOJI OTANI. The Japanese Mutual Consultation Survey Team headed by Capt. Koji Otani, visited the NMP Training Center on October 20-28, 1987 for the mid-term evaluation of the Project.	(Refer to the corresponding Japanese Commitment at the extreme left)	The former Undersecretary PATRICIA STO. TOMAS represented Secretary FRANKLIN M. DRILON during the series of discussions with the "Team".

EXHIBIT II

ORGANIZATION CHART
OF THE JICA-NMP PROJECT



*NMPTC - National Maritime Polytechnic Training Center

EXHIBIT III

Focus of Extension

Annex A - Justification for New Courses at NMP

Annex B - List of Priority Courses and Corresponding Equipment

Annex C - Syllabi for Priority Courses

1. Electronic Navigation System (Global Positioning System)
2. International Rules of the Road
3. Radiotelephony
4. Marine Electronics
5. Safety in Dry Cargo Ship Carrying Dangerous and Hazardous Cargo
6. Crude Oil Washing (COW) and Inert Gas System (Tanker Operation Course)

JUSTIFICATION FOR NEW COURSES AT NMP

1. Ships Carrying Dangerous Goods Course - This course is designed to comply with the requirements of SOLAS 74, Chapter II-2 and Chapter VII, MARPOL 73/78 Annex III, STCW 78, Regulation II/8 and STCW Resolution 13.

There has been a high rate of growth in the maritime transportation of dangerous and hazardous cargoes in package form.

Although packaged dangerous goods represent only 10 percent by quantity of the total general cargo, the hazards involved in its transportation cannot be compared with those of general cargo, as even minor incidents can have catastrophic effects on safety of personnel, ships and equipment and harm to environment.

In order to bring about greater awareness for the safe transportation of dangerous and hazardous goods and to comply with numerous international requirements, there is a vital need to offer this course at NMP.

2. Safety in Liquified Gas Tanker Course - This course is designed to comply with the requirements of SOLAS and MARPOL Convention and their Protocols 1978.

In order to bring about greater awareness for safe transportation of Liquified Gas in Bulk and to qualify our maritime personnel for duties onboard Liquified Gas Tankers, there is an urgent need to offer this course at NMP

3. Radio Telephony Course - This course is designed to comply with para 16 (b) Appendix to Regulation II/2, STCW 1978 Convention.

With the new trend in the Maritime Industry for lesser number of crew, it is imperative that all deck officers should know radio telephone procedures and the use of radio telephone with respect to distress, urgency, safety and navigational messages, hence there is an

urgent need to program and offer this course at MMP.

4. Radio Officers International Maritime Satellite Communication System Course - This course is designed to comply with pertinent provisions of STCW 1978 Convention.

With the introduction of new communication systems aboardship, it is imperative that the Marine Radio Officer update their knowledge on the new developments; hence, there is an urgent need to program and offer this course at MMP.

5. Global Positioning System - This module is designed to comply with provisions of STCW 78 Convention.

At present, MMP is offering the Electronics Navigation System Course. In order to update this course, due to the introduction of the Global Positioning System (GPS) onboardships and to broaden the knowledge of our deck officers, the inclusion of this module in the Electronics Navigation System Course is deemed vital and necessary.

6. International Rules of the Road Course - This course is designed to comply with pertinent provisions of STCW 78.

Some of the recent marine disasters may be attributed to lack of thorough knowledge of the Rules of the Road by our marine deck officers. This course aims to bring about greater awareness, understanding and applications of the rules of the road by means of laboratory exercises on steering, light and shape identification and sound and light signal identification.

7. Marine Electronics Course - This course is designed to enable our marine officers and electronics maintenance personnel onboardship to understand Marine Electronics and their various applications in modern ships.

Since our modern ships employ varied electronic equipment, our officers and personnel operating and maintaining these equipment should know more about Marine Electronics.

8. Crude Oil Washing and Inert Gas System Course - This course is designed to comply with the requirements of SOLAS and MARPOL Conventions and their Protocols 1978 and Regulation 62 of SOLAS 74 as ammended, with special emphasis on Inert Gas and Crude Oil Washing system, in order to qualify our officers and ratings for employment aboard crude oil tankers.

LIST OF PRIORITY COURSES AND CORRESPONDING EQUIPMENT*

Course	Equipment
A. Deck Department	
1. Electronic Navigation System (Global Positioning System)	Receiver Simulator
2. International Rules of the Road	Navigation Light Simulator
3. Radiotelephony (with expanded curriculum to include FGDMSS)	Simulated Modular Communication Laboratory
B. Engine Department	
4. Marine Electronics	Logic Circuit Trainer Microproscessor Trainer Logic Probes Logic Pulser Digital Multimeters
C. Specialized Courses	
5. Safety in Dry Cargo Ship Carrying Dangerous and Hazardous Cargo	Reference Materials and Teaching Aids
6. Crude Oil Washing (COW) and Inert Gas System	(Technology transfer not fully achieved due to fast turn-over of intructors

* For every course cited, it is understood that appropriate faculty scholarship (training) and equipment will be provided.

I. Course Title: Electronic Navigation System (ENS)

II. Module: Global Positioning System

III. Objectives: The module is designed for licensed Deck Officers taking up the Electronic Navigation Course (ENS). After completion of the module, the participant is able to:

1. Know the fundamentals of the Global Positioning System (GPS).
2. Determine the GPS lines of position.
3. Practice navigation by GPS.

IV. Duration: Integrated to the 12 days Electronic Navigation System Course.

V. Student Level: Deck Officers

VI. Methodology: Lecture and discussion method shall be used for the theoretical aspect of the course. Hands-on training with actual equipment will be conducted.

VII. Course Outline:

A. The Global Positioning System (GPS-NavStar) Fundamentals
   1. Definition
   2. Basic Principle by which the system operates
   3. General Characteristic of the System
      a. Capabilities of the System
      b. Basic Segments of the GPS System
         1. Control System
            a. Monitor Stations (MS)
            b. Master Control Station (MCS)
            c. Upload Station (ULS)
         2. Space System
            a. Space Vehicle
            b. Orbit
            c. Configuration
         3. Users System
   4. GPS Position Lines
   5. GPS System Accuracy
      a. Geometric Dilution of Precision (GDOP)
      b. Position Dilution of Precision (PDOP)
      c. Altitude Dilution of Precision (ADOP)
   6. Errors in the GPS
      a. Space Vehicle (SV) Position Errors
      b. Medium and Signal Processing Errors
         1. Propagation Link Error
         2. Multipath Error
      c. Receiver and User Dynamic

B. IMO Standards on Accuracy

C. The GPS Receiver
   1. GPS Status Display
   2. GPS Mode
      a. Determining Availability of GPS Signal
      b. Calculating the Visibility of a Group of Satellite

c. Reading Present Satellite Positions
d. Calculating the Position of a Specific Satellite
e. Recalling GPS Information
f. Reading the Message from the Satellite
g. Resetting the GPS Receiver
h. GPS Error Messages

D. Optimizing GPS Performance
1. Antenna Height
2. Ignoring Weak Satellite Signal
3. Choosing the Correct Datum
4. Applying Geoidal Correction to WGS - 84 Datum
5. Switch Modes When PDOP Is Too Great
6. Entering the Vehicle Dynamics
7. Averaging the GPS COG/SVG

E. Practical Navigation with Satellite
1. Existing Receiver
2. Overview of the Extended GPS Solution
3. Possibilities and Limitation

VIII. Materiel Requirements:

1. List of Equipment Needed:

a. 2 units, Global Positioning System (GPS) Receiver with 20 copies of Instruction Manual
b. 2 units, Automatic Tracking Omega Receiver with 20 copies of Instruction Manual

2. List of Training Aids:

a. 24 pcs., Navigational Dividers, 20 cms. (length of each leg)
b. 24 pcs., 30^{0} x 60^{0} graduated triangles 36 cm. (length)
c. 24 pcs., 45^{0} x 45^{0} graduated triangles 25 cm. (length)
d. 12 pcs., Nautical Charts No. 4464 - San Juanico Strait
e. 12 pcs., Nautical Charts No. 4456 - Samar Sea
f. 12 pcs., Nautical Charts N . 4468 - San Pedro Bay
g. 12 pcs., Nautical Charts No. 4214 - Verde Is. Passage
h. 12 pcs., Nautical Charts No. 4200 - Philippine Chart
i. 6 pcs., Guide to Port of Entry
j. 1 set, Admiralty List of Radio Signals Vol. I to VI (1989)
k. 6 pcs., Admiralty List of Radio Signals Vol. II (1989)
l. 6 pcs., Admiralty List of Radio Signals Vol. IIa (1989)

3. List of Reference Books:

1. 6 pcs., *Marine Electronic Navigation, latest ed. by Appleyard (Reutledge Kegan Paul-London)

2. 6 pcs., "Navstar Global Positioning System (GPS) by Codwell T. (A Dream Come True - Shipbuilding Marine Engineering Int'l.)
3. 6 pcs., *The GPS Navigation Message by Dierendonck, A. I. et. al. (GPS Institute of Navigation, Washington DC)
4. 6 pcs., *Satellite Navigation on Hydrography by Eaton, D. E. et. al. (IHR, Monaco)
5. 6 pcs., *The Navigation Technology Program by Eaton, R. L. (GPS Institute of Navigation, Washington DC)
6. 6 pcs., *GPS User Equipment Error Models by Martin, E. H. (GPS Institute of Navigation, Washington DC)
7. 6 pcs., * Principle of Operation of NAVSTAR and system Characteristics by Milliken, R. I., Zoller, C. I. (GPS Inst. of Navigation, Washington DC)
8. 6 pcs., *Civil Marine Application of the GPS by Stansell, T. A. (GPS Institute of Navigation, Washington DC)
9. 6 pcs., *The Transit Navigation Satellite by Stansell, T. A. (Magnavox, USA)
10. 6 pcs., *Real Time Simulation of a Low Cost GPS for Nonprecision Approaches by Shively, C. (GPS Institute of Navigation, Washington DC)

Course Title: International Rules of the Road (DU-11)

II. Description: The course covers an extensive review of the Rules of the Road, their relationships and applications.

III. Objectives:

1. Review the International Rules of the Road.
2. Provide opportunity to understand and apply the rules by laboratory exercises on steering, lights and shapes identification and sound and light signal identification.
3. Provide the skills needed to build up a student's competence and confidence as a watchkeeping officer.

IV. Methodology:

The lecture and discussion methods shall be used for the theoretical aspect of the course. The theoretical discussion shall be related to actual maritime cases.

The steering simulator shall be used for steering rules. Carousel and slides shall be used for lights and shape identification, a horn for sound signal identification and a telegraph hand key for light signal identification.

V. Duration: 40 Hours

VI. Student Level: Deck Officers

VII. Course Outline:

A. Introduction
Content
1. Comparison of the 1960 and 1972 Rules of the Road and its pertinent changes.
2. Review of International Rules of the Road - Part A.
Activities
Lecture - Discussion

B. Steering and Sailing Rules
Content
1. Rule 4 - 11
2. Rule 13 - 19
Activities
1. Lecture - Discussion
2. Steering Simulation for Overtaking, Crossing and Head on Situation. (In sight of one another)
3. Radar Simulation for Overtaking, Crossing and Head On Situation (Restricted Visibility)

C. Lights and Shapes
Content
1. Rule 20 - 22
2. Rule 23 - 31
Activities
1. Lecture - Discussion
2. Identification of lights and shape by means

of slide presentation.

D. Sound and Light Signals/Exemptions
Content
1. Rule 32, 33, 38
2. Rule 34 - 37
Activities
1. Lecture - Discussion
2. Identification of lights and sound signals by using telegraph hand key with a blinker and a horn.

VIII. Material Requirements:

1. Equipment Needed:

a. Steering Simulator
b. Radar Simulator
c. Carousel/Slides (2 units)
d. Horn (8 pcs.)
e. Blinker (8 pcs.)
f. Telegraph hand key (8 pcs.)

2. Books Needed:

a. Collision Regulation by Cockroft and Lameijer
b. Collision at Sea: Guide to the Legal Consequences by Mankabady

CURRICULUM

FOR

DECK OFFICERS RADIOTELEPHONY COURSE

TRAINING MODULE
(A 5-DAY COURSE)

NATIONAL MARITIME POLYTECHNIC, TACLOBAN CITY

(AS REQUIRED BY PARA 16 (b) APPENDIX TO REGULATION II/2, IMCO STCW 1978 CONVENTION)

INTRODUCTION

A. Purpose of the Course

To familiarize deck officers with shipboard radiotelephone communications procedures and the use of the radiotelephones in particular with respect to distress, urgency, safety and navigational messages as required by para 16 (b) Appendix to Regulation IV/2, IMCO STCW 1978 Convention.

B. General

This course consist of 35 periods of instruction, one hour each seven periods daily for five days.
The following subjects are covered: Radio Laws and Regulation Distress, Urgency and Safety Messages; Merchant Ship Search and Rescue Communications; The International Code of Signals; IMCO Standard Marine Navigational Vocabulary; Radio Communication equipment; Radio Medical Systems and Procedures and Safety Precautions; and Future Global Maritime Distress and Safety System.

C. Specific Objectives

The trainee who successfully completes this course of instruction can be expected to send and receive spoken messages by radio telephone in accordance with international procedures in particular with respect to distress, urgency, safety and navigational messages.

D. Eligibility

Licensed deck officers are eligible

E. Course Prerequisites

None

F. Class Size

Maximum - 20

Minimum - 10

RECAPITULATION OF CURRICULUM

		Time Hours-Minutes	
SECTION I –	Indoctrination and Orientation		1:00
Topics:	Need for the course, general and specific objectives, overview of course	1:00	
SECTION II –	IMCO Standard Marine Navigational Vocabulary & International Morse Code		6:00
Topics: 1.	Standard verbs, responses, urgent messages and phases, bearings and distances, courses and speeds, geographical names and times, glossary and phrase vocabulary	1:00	
2.	Dangers to navigation and warning, radio ship-to-ship/shore-to-ship/ ship-to-shore.	1:00	
3.	Radio Navigationwarnings, tropical storms, waypoints, reporting points, tides and depths, manuevering, pilotage and fairway navigation.	1:00	
4.	Practical exercises	1:00	
5.	Introduction to Int'l Morse Code and Alphabets familiarization	2:00	
SECTION III	Radio Laws and Regulations		3:00
Topics: 1.	Phil. Radio Laws and regulations pertaining to shipboard radio-telephone communications.	1:00	
2.	SOLAS 1974 Convention radiotelephone regulations, STCW of 1978	1:00	
3.	International telecommunication Convention-Radio regulations pertaining to harmful interference and order of priority of communications in the maritime mobile service and in the maritime mobile satellite service.	1:00	
SECTION IV-	Distress, Urgency and Safety Radio telephone messages and Introduction to FGMDSS (INMARSAT)		4:00
Topics: 1.	Distress call, message transmission procedure, acknowledgement and traffic	1:00	
2.	Alarm signals and emergency position indicating radio beacon signals urgency and safety signals.	1:00	
3.	FGMDSS Function & Requirement of SAR	2:00	

SECTION V -	The International Code of Signals		4:00
Topics:	1. RadioTelephone communications	1:00	
	2. Radiotelephone traffic procedures	1:00	
	3. Practical exercises	1:00	
	4. IMO familiarization light signaling	1:00	
SECTION VI-	IMCO Merchant ship Search and Rescue Radio Communications		3:00
Topics:	1. Use of the IMCO Merchant Ship Search and Rescue Manual (MERSAR)	1:00	
	2. Position reporting systems and procedures.	0:30	
	3. AMVER	0:30	
	4. Practical Exercises	1:00	
SECTION VII -	Radio Medical Systems and Procedures		3:00
Topics:	1. Requesting prompt medical advice for ship at sea.	0:30	
	2. Medico checklist format and specific description of pains	0:30	
	3. Practical exercises	1:00	
	4. IMO familiarization (Light signaling)	1:00	
SECTION VIII-	Shipboard Radiotelephone Equipment		4:00
Topics:	1. HF (SSB) Transmitter Receiver, VHF Transmitter-Receiver, Emergency Lifeboat Radio, Log Keeping and Monitoring of distress frequencies.	2:00	
	2. Practical exercises	2:00	
SECTION IX-	Safety Precautions		1:00
Topics:	1. Preventive measures for safety of ship and personnel in connection with hazards related to radio equipment, including electrical and radiation hazards.	0:30	
	2. Fire prevention and fire extinction in radio installations	0:30	
SECTION X -	Final Review and Examination		6:00

Allocation of Instructional Time

	DAY	1	2	3	4	5	Total Hours Min.
I.	Indoctrination and Orientation	1:00					1:00
II.	IMCO Standard Marine Navigational Vocabulary In t'l Morse Code	6:00					6:00
III.	Radio Laws and Regulations		3:00				3:00
IV.	Distress, Urgency and Safety Messages /FGMDSS		4:00				4:00
V.	The International Code of Signals/IMC Light signal			4:00			4:00
VI.	IMCO Merchant Ship Search and Rescue Radio Communications			3:00			3:00
VII.	Radio Medical Systems and Procedures/IMC Light			2:00	1:00		3:00
VIII.	Shipboard Radiotelephone Equipment				4:00		4:00
IX.	Safety Precautions				1:00		1:00
X.	Final Review and Examination					6:00	6:00
	DAILY TOTALS	7:00	7:00	7:00	7:00	7:00	35:00
					GRAND TOTALS		35:00

DAILY SCHEDULE

All period are 60 minutes in length

Period	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1	SEC. I, Indoctrination & Orientation			SEC. VII Radio Medical Systems and Procedures	
2		SEC. III. Radio : Laws & Regulations	SEC. V, The International Code of Signals		
3	SEC. II, IMCO Standard Marine Navigational Vocabulary		SEC. VI. IMCO Merchant Ship Search and Rescue Radio Communications	SEC VIII-Shipboard Radiotelephone Equipment	SEC. X - Final Review and Examination
4		SEC. IV, Distress, urgency and Safety Messages & Future Global Maritime Distress & Safety Signal			ADMIN TIME
5					
6			SEC. VII-Radio Medical Systems and procedures	SEC. IX-Safety Precautions	
	IMC	IMC	IMC Light Signal	IMC Light Signal	

MASTER MATERIAL LIST

A. INSTRUCTOR REQUIREMENTS

Two (2) Ist Class RadioTelephony License

B. SPACE REQUIREMENTS

One classroom, 30' x 20' equipped with movie screen, chalkboard, lectern, capable of seating 20 students or one language laboratory, one radio room mockup. Class must be fully air condition.

C. TEXTS

		Per Student	Per Class
1.	IMCO standard Marine Navigational Vocabulary	1	20
2.	International Code of Signals, Pub. No. 102 1969 Edition, Revised 1981	1	20
3.	IMCO Marchant Ship and Rescue Manual (MERSAR)	1	20
4.	International Medical Guide for Ships	1	20
5.	IMCO Medical First-Aid Guide for Accidents Involving Dangerous Goods	1	20
6.	Philippine and International Radio Laws and Regulations	1	20
7.	International Morse Code Guide (for Beginers)	1	20
8.	Future Global Maritime Distress & Safety System		

D. EQUIPMENT

	Qty	Unit	Description
1.	1	set	16 mm, Sound Motion Picture Projector with Movie Screen (Min 4'x4')
2.	1	each	Overhead Projector
3.	1	set	Instructor's master console with cassette master recorder, 2 teacher program selector panels, 1 master recorder reel, two headsets
4.	20	set	Students desk equipment consisting of 1 cassette recorder, 1 headset, volume controls, control buttons, 1 handkey for code practice.
5.	1	set	VHF Radiotelephone equipment for 60 channels
6.	1	set	Emergency portable lifeboat radio transceiver
7.	1	set	Radio Transceiver SSB, 75W Synthesized
8.	1	set	International Morse Code Oscilator with blinke lamp.
9.	1	each	Auto Alarm
10.	1	each	Radio Watch CLOCK

11.	2	each	JRC MODE JUE 35 A/B Telex Machine
12.	25	each	Quick Plotting Chart
13.	1	each	CES Satellite Antenae
14.	1	each	SES Satellite Antenae (Radome Mock-up)

I. Course Title: Marine Electronics Course

II. Objectives: This course is designed to provide the participants knowledge of Marine Electronics and their various applications in modern ships and the importance of semi-conductor devices in the field of Electronics.

III. Duration: Two weeks (80 hours)

IV. Course Outline:

A. Introduction

1. Brief history of Electronics
2. Objectives of the Course
3. School Policies

B. Semi-conductor Applications

1. Diodes
2. Transistors

C. Operational Amplifiers

1. Function of OP-AMPS
2. OP-AMPS Configurations
   a. Non-Inverting
   b. Inverting
3. Basic OP-AMP Circuits
   a. Voltage Comparator
   b. Amplifiers
   c. Signal Processors
4. Application of OP-AMPS

D. Digital Analog and Analog to Digital Conversion

1. Sample and hold circuits
2. Digital to Analog Converter (DAC)
   a. Weighted Resistor D/A Converter
   b. R-2R Ladder Resistor
3. Analog to Digital Converter (ADC)

E. Basics of Digital Computer Hardware

1. Definition of a Computer
2. Logic Circuits
3. Gates 2 Discrete Circuits
   a. Inverter
   b. AND Gate
   c. OR Gate
   d. NAND Gate
   e. NOR Gate
   f. Ex-OR Gate
   g. Ex-NOR Gate

F. Binary Number Systems

G. Flip Flops (FF)

1. RS-FF
2. Clocked RS-FF
3. D-FF
4. Clocked D-FF
5. Edge-Triggered D-FF
6. D-FF with preset and clear
7. JK-FF
8. Master/Slave FF

H. Registers

a. Buffer
b. Controlled Buffer Register
c. Shift Registers

I. Counters

1. Ripple Counter
2. Binary to segment display

J. Multivibrators

K. Digital Filters

L. Adders

M. Memory

N. Multiplexes

O. ALU (Arithmetic Logic Unit)

P. Microprocessor

V. Material Requirements:

	Qty	Unit	I T E M
1.	20	sets	Logic Circuit Trainers with power supplies
2.	20	sets	Microprocessor Trainer
3.	20	sets	OP-AMPS Circuit Board Kits
4.	20	sets	Logic Probes
5.	20	sets	Logic Pulsers
6.	20	sets	Digital Multimeter
7.	2	sets	Transistor Analyzer Scope
8.	20	sets	Philips Practronics Kit

I. Course Title: Safety in Dry Cargo Ship Carrying Dangerous and Hazardous Cargo

II. Objectives: The course is designed in accordance with the relevant provisions of the International Convention on STCW 78. After successfully completing the course, the student should be able to:

1. Acquire knowledge of the different chemical and physical properties of dangerous and hazardous substances.
2. Acquire knowledge on the use of IMDG Code.
3. Acquire knowledge on stowage and segregation of dangerous and hazardous substances.
4. Know the hazards to personal health that exposure to hazerdous goods mey cause end how first aid is administered.
5. Know the safety precautions and emergency procedures for ships carrying dangerous goods.

III. Duration of Course: 3 Days

IV. Student Level: Officers and Ratings

V. Course Outline:

A. Introduction and Outline of Course
   1. Welcome & outline of course
   2. IMO Resolution 13, STCW 78
   3. Chapter VII SOLAS 74 Convention

B. Basic Chemistry
   1. Introduction to Chemical Combination
   2. The Atom, Atomic Particles
   3. Valence as a Chemical Bond; as a Direction
   4. Basic Chemistry of Oil
   5. Alkanes, Alkenes and Alkynes

C. Chemical Families
   1. Acids
   2. Bases

D. Physical and Chemical Properties of Dangerous and Hazardous Substances

E. General Use and Familiarization of IMDG Code
   1. Introduction and Background
   2. Purpose of the Code
   3. Arrangement of the Code Section A
   4. Arrangement of the Code Section B & C
   5. General Index

F. Classification of Dangerous and Hazardous Goods
   1. Class 1. Explosives
   2. Class 2. Gases
   3. Class 3. Inflammable Liquids
   4. Class 4. Inflammable Solids
   5. Class 5. Oxidizing Agents
   6. Class 6. Poisonous (Toxic) Substances
   7. Class 7. Radioactive Substances
   8. Class 8. Corrosives
   9. Class 9. Miscellaneous Dangerous Substances

G. Identification and Markings
   1. Correct technical name, UN number
   2. Use of Trade name and commonly used name
   3. The General Index of Technical names
   4. Mixture of Substances
   5. Flashpoints and Flashpoint Groups supplement to Technical names
   6. Durability of Labels
   7. Label Entries or Marking Codes
   8. Color Codes

H. Documentation of Dangerous Goods Shipments
   1. Similar Documents for other Goods
   2. Basic Items of Information
   3. Certificates of Declaration of Acceptability for Shipment
   4. Recommended Format for Dangerous Goods Declaration

I. Packaging, Stowage and Segregation
   1. Packaging Materials, Dimension, Strength and Construction
   2. Stowage and Securing
   3. Ship Grouping for Carriage of Dangerous Goods
   4. Stowage, Under Deck, on Deck, on Deck only
   5. Stowage Shaded from Radiant Heat
   6. Segregation Tables
   7. Definition of Segregation Terms

J. Handbooks and Information Sheets

K. Safety Precautions and Emergency Procedures
   1. IMO Emergency Procedures of Ships Carrying Dangerous Goods
   2. Emergency Plans and Procedures in case of Incidents involving Dangerous Substances
   3. Possible Effects of Spillage or Fire

L. Medical First Aid
   1. Medical First Aid in Accidents Involving Dangerous Goods
   2. Medical Advise by Radio

M. Protective Clothing
   1. Protection against Skin Contact; Ingestion and Heat
   2. Total Protective Suits
   3. Heat Protective Suits

VI. Material Requirements:

1. Reference Books:
   a. IMCO Medical First Aid Guide for Use in Accidents Involving Dangerous Goods.
   b. IMCO International Maritime Dangerous Goods Code (Latest Edition) Vol. I to VIII.
   c. IMCO Emergency Procedures for Ships Carrying Dangerous Goods
   d. UN Transport of Dangerous Goods (Orange Book)
   e. ICHCA: Code of Safe Practice for Handling of Dangerous Goods in Packages
   f. US Government Printing Office: Code of Federal Regulations No. 49 Transportation
   g. US Coast Guard - Chemical Data Guide for Bulk Shipment by Water
   h. Nostraud Reinshold Co. The Condensed Chemical Dictionary
   i. SAX: Dangerous Property of Industrial Materials
   j. Robert C. Weast: Handbook of Chemistry and Physics
   k. IMCO: Code of Safe Practice for Solid Bulk Cargoes
   l. Dutch Association of Safety Experts: Handling Chemicals Safely
   m. Samples of Chemicals Usually Stowed Aboardship
   n. Manual for IGS

I. Course Title: Crude Oil Washing (COW) and Inert Gas System (IGS) Operation Course

II. Objectives: The course is designed in accordance with the provisions of SOLAS Convention 1981 Regulation 62 of Chapter II-2 and Regulation 13 B of Annex I of MARPOL 73/78. Upon completion of the course, the participant shall be able to:

1. Acquire knowledge about the correct procedure and operation of crude oil washing using single nozzle and twin nozzle crude oil washing device installed onboard oil tankers.
2. Acquire knowledge about the importance of Crude Oil Washing as provided for in MARPOL regulation.
3. Know the purpose of inert gas system in accordance with IMO, STCW provisions.
4. Acquire knowledge about the correct procedure and operation of inert gas system during loading, discharging, inerting, topping off and gas freeing operation onboard oil tankers.
5. Know the correct operation of Inert Gas Control Console.

III. Duration of the Course: Five (5) Days

IV. Student Level: Officers and Ratings

V. Course Outline: CRUDE OIL WASHING (COW)

A. Introduction of the Course

1. Welcome and outline of COW Course
2. Regulation 13 B of Annex I of MARPOL 73/78

B. Pipings and COW Machine Diagram

1. Piping System
2. Tank Washing Machine
3. Pumps
4. Stripping System/Eductor System
5. COW Lines and Valves

C. Structural Component of Cargo Tanks

1. Bulkhead
2. Side Shell/Bottom Shell
3. Bottom Girder
4. Crosstie
5. Keel Plate

D. Parts of Crude Oil Washing Machine

1. Control Unit

2. Nozzle
3. Body
4. Nozzle Indicator
5. Inlet Flange
6. Angle Indicator

E. Typical Program and Adjustment

1. $150^{\circ} - 70^{\circ}$ Program
2. $70^{\circ} - 30^{\circ}$ Program
3. $30^{\circ} - 0^{\circ}$ (Bottom) Program

F. Crude Oil Washing Checklist

1. Pre-arrival checks at discharge port
2. Before crude oil wash operation
3. During crude oil wash operation
4. After crude oil wash operation

G. Typical Crude Oil Washing Program

1. Top Wash
2. Bottom Wash

H. Approved Methods and Programs for Crude Oil Washing

I. Precautions against Electrostatic Hazard

J. Use and Control of IGS

1. Pressure
2. Temperature

K. Discharge of Tank Washing

1. Eductor
2. Cargo Pump
3. Stripping Pump

L. Operation of Cargo Control Console for Crude Oil Washing during Discharging

M. Washing Operations using Cargo Control

1. Sequence of Tank Washing
2. Single Tank Washing
3. Multi-tank Washing

INERT GAS SYSTEM/OPERATION COURSE

A. Inert Gas Source

1. Main Boiler
2. Auxiliary Boiler
3. Inert Gas Generator Burning Diesel/Oil

B. Inert Gas Production

1. Fuel Oil
2. Air

THE NEED FOR THE EXTENSION OF JICA PROJECT

There is a need for the extension of the JICA Project for the National Maritime Polytechnic Training Center in Cabalawan, Tacloban City, at least for a minimum period of two (2) years upon expiration on June 13, 1989 to avail of the funding needs of the Project from the Foreign Assisted Projects (FAP) of the Department of Budget and Management.

With the implementation of the project, we were able to request for the release of the amount of ₱ 46,000,000 for capital outlays from the FAP's alone for a period of two (2) years. An additional amount is forthcoming to cover additional fund for officer's dormitory, equipment outlay, land and land improvement, infirmary, library and museum, machine shop, fire and smoke house and motor pool. If the JICA Project in Cabalwan, Tacloban City would be extended, further improvements at the National Maritime Polytechnic include landscaping of the campus, additional road network, tennis court, swimming pool, additional school houses, additional staff houses, additional spare parts, etc.

In our proposal for the 1990 budget, the amount of ₱ 45,000,000 is requested under FAP's and a request for special budget under FAP's was also submitted in the amount of ₱ 9,500,000 for 1989. If all these requests are granted the aggregate amount will be ₱ 101,500,000 up to 1990 alone.

Confirmation therefore,of the approval of extension of JICA Project before June 13, 1989, is a must so that all the request submitted for funding under FAP's will be approved, particularly nowadays when enrollment at the Polytechnic is in its full swing.

Hereunder are the releases of Foreign Assisted Projects for the National Maritime Polytechnic (NMP) for the Budget year 1988 and 1989 and our Budget request for 1989 Special Budget and 1990 Budget Proposal.

Budget Releases for the Capital Outlays
Under Foreign Assisted Projects

Under Special Budget for Calendar year 1988

1.	Officer's Dormitory (Phase I) -	₱ 10,000,000	Released
2.	Perimeter Fence -	9,000,000	under Advice
3.	Site Development -	3,000,000	allotment
	Total	₱ 22,000,000	No.E3-0086-001
			dtd. May 26,1988

Under Republic Act 6688
(General Appropriations Act for 1989)

1.	Multi-purpose Building	₱ 5,000,000	Second quarter
2.	Seawall Construction	4,000,000	release for
3.	Equipment Outlays	15,000,000	Capital Outlay
		₱ 24,000,000	appropriations
			is under
			process

Special Budget Submitted for 1989

1.	Multi-purpose Building	₱ 2,500,000	Special budget
2.	Infirmary	2,000,000	already submit-
3.	Library and Museum	2,000,000	ted to be funded
4.	Fire and Smoke House	1,000,000	under FAP's.
5.	Machine Shop	750,000	
6.	Motor Pool	750,000	
7.	Power House	500,000	
		₱ 9,500,000	

Budget Proposal for 1990 Budget

1.	Officer's Dormitory (Phase 2)	₱ 10,000,000	Included in the
2.	Land and Land Improvement	15,000,000	1990 budget
3.	Equipment Outlays	20,000,000	proposal.
		₱ 45,000,000	

3. Combustion

C. Processing the Inert Gas

1. The Scrubber
2. The Dimester
3. Fan/Blower
4. Sea Water Scrubber Pump
5. Boiler Uptake Valve

D. Combustibility

1. UFL
2. LFL

E. Pressure Regulating Valve

1. Recirculation Valve
2. Main Control Valve
3. Deck Seal Unit
4. Breather Valve
5. P/V Breaker Valve

F. Procedure and Operation of IGS

1. Loading
2. Discharging
3. Topping-off
4. Inerting
5. Gas Freeing
6. Crude Oil Washing

G. Correct Operation of Inert Gas Control Console

1. O_2 Analyses
2. Temperature Alarm Indicator
3. Low Pressure Alarm
4. Low-low Pressure Alarm
5. High Pressure Alarm
6. Scrubber Sea Water High Level Alarm

VI. Materials/Equipment Requirements:

1. Crude Oil Washing

a. Single nozzle tank cleaning machine with control unit
b. Twin nozzle tank cleaning machine
c. One unit portable pump
d. Crude Oil Washing Manual
e. Platform and Pipings

2. Inert Gas System

a. Inert Gas Training Films
b. Inert Gas Control Console
c. Inert Gas System Manual

MINUTES OF THE SPECIAL MEETING
OF THE BOARD OF TRUSTEES OF
THE NATIONAL MARITIME POLYTECHNIC
AT THE BOUGANVILLA, ROOM OF THE NIKKO,
MANILA GARDEN HOTEL, MAKATI,
METRO MANILA ON THE
14TH OF APRIL 1989 AT 9:20 A.M.

Present:

D. A. Cresencio Siddayao

Capt. George Pimentel

Mr. Abelardo Viray

Eng. F. P. Dalagete

Capt. Daniel Delgado

Mr. Romeo Escandor

Absent:

Undersecretary Antonio G. Hechanova

Capt. Gregorio Oca

Dra. Marilou Arcelo

Mr. Carlos Salinas

Others Present:

Ms. Remy Cagulada

Mr. Renato Palomo

Mr. Alfredo Antonio

Commander Gregorio Gayac

JICA:

Capt. I. Osugi

Mr. Ozawa

Eng. K. Tomikura

Mr. A. Hashimoto

Mr. K. Endo

Mr. M. Yamagami

Mr. S. Miyanaga

Capt. K. Otani

Chairman:

D. A. Cresencio Siddayao - in the absence of Undersecretary Antonio G. Hechanova

Secretary:

V. R. del Rosario

A. Call to Order

The meeting was called to order at 9:20 a.m.. D. A. Siddayao started the meeting by requesting both sides to introduce their respective members and each side did so.

B. Determination of Quorum

The secretary certified that there was a quorum to do business.

C. Exigency for the extension of JICA - NMP technical cooperation program

Capt. Osugi made an opening statement. Capt. Osugi indicated that the technical cooperation program was due to expire in June 1989. He, together with his team, we sent to the Philippines to evaluate the desirability of continuing the program. Capt. Osugi mentioned that there was public concern in Japan about the viability of the program. Capt. Osugi indicated that he wished to have an exchange of ideas between his team and those involved at NMP in order to promote the positive aspects of the program and to solve any

problem which would be identified. Capt. Osugi confirmed that his team would cooperate with the Filipino side as much as possible. Capt. Osugi suggested that without strong cooperation from the Filipino side there could be no progress.

On behalf of the NMP, D. A. Siddayao replied that the NMP wants an extension of the technical cooperation program and this will be made clear to the JICA team during the course of discussion with them.

The chairman turned over the floor to Capt. George Pimentel, the president of NMP, who referred those present to the papers/reports which were provided to both the NMP and JICA teams prior to the meeting. After reading through the prepared papers/reports, Capt. Pimentel added that the NMP is soon to initiate a faculty incentive program which would include the creation of professorial chairs and faculty grants so that faculty members would have an incentive to stay with NMP. In addition, the POEA has made a forecast that the market for Filipino seamen will expand for the next 5 to 10 years and the NMP wants to be able to assist the Filipino seamen during this period.

There followed a discussion of the matters taken up by Capt. George Pimentel namely the respective commitments and accomplishments of JICA and NMP, the proposed new courses which would require JICA assistance and the Philippine government's financial commitments to the JICA/NMP project. For the JICA team, Mr. Hashimoto stated that there was discussion among the team members in Tokyo. Your team are

proposing an ad interim extension of 6 months. During the ad interim period, you would hold discussions with the Filipino side and therefore your team will evaluate whether the project was worth continuing for a further period. Capt. Pimentel referred Mr. Hashimoto and his team to the Philippine government's proposal to allocate Pesos 45 million to the NMP which would be included in the proposed Philippine government budget for 1990. Capt. Pimentel indicated that the Department of Budget and Management needs confirmation of a 2 to 3 year extension of the JICA/NMP project before endorsing the allocation of Pesos 45 million to NMP. Capt. Pimentel suggested that if the extension was only for 6 months then there was a possibility that the department of Budget and Management would not favorably endorse the allocation of Pesos 45 million to NMP. After discussion, the JICA team commited to the following: -

a. The JICA team would recommend an automatic extension of 6 months to the JICA/NMP technical cooperation program.

b. During the ad interim period, the JICA team would evaluate and discuss among themselves whether the project was worth extending for a further period.

c. In any event, JICA would like an indication of any deadline which the Department of Budget and Management may set for including the proposed Peso 45 million in the Philippine Government Budget for 1990.

Mr. Hashimoto requested Capt. Pimentel to explain item 5 of section II of Capt. Pimentel's paper. In

particular, Mr. Hashimoto would like to know what in Capt. Pimentel's views was the shortfall of the project. Capt. Pimentel indicated that personnel was the key problem. There were not enough Philippine counterpart personnel, and those available did not have the required qualifications. That being the case, Mr. Hashimoto suggested that a sufficient number of counterparts with good qualification must be recuited and Capt. Pimentel committed to do so on a best effort basis.

Mr. Hashimoto turned his attention to item 3. section III of Capt. Pimentel's report. Mr. Hashimoto inquired whether there was a need to amend the record of discussion between NMP and JICA in order to make the target enrollment goal more realistic. Capt. Pimentel replied that a certain amount of amendment to the record of discussion was necessary. For example, for a particular class 80 masters are required for a 15 week course. Capt. Pimentel expressed the view that the number of enrollees was too high. The NMP has now turned to heterogeneous classes which group deck officers together regardless of their license.

Citing another example under the records of discussion, the Filipino counterpart's qualification are very stringent and difficult to meet. In one instance, the record of discussion requires a Filipino counterpart master mariner with 5 years sea experience. Capt. Pimentel mentioned that even he would not be qualified for the position although he is now the President of the NMP. Mr. Hashimoto appreciated Capt.

Pimentel's comments and suggested that it was not so important to adhere stricly to the qualifications set out in the record of discussion. The NMP should recuit the number of counterpart personnel required and NMP should strive to fill the positions with personnel with good potential for development in the future.

Thereafter, the JICA team requested the members of the Board to answer the following question: - What can each individual board member contibute to the JICA/NMP joint project?

For the POEA, D. A. Siddayao replied that the government foresees an expansion in the market for Filipino Seamen. There is a great deal that the NMP can do and the POEA will support the NMP.

Eng. Dalagete replied for the Department of Education, Culture and Sports and indicated that the DECS would like to revive the previous policy of training trainors on the equipment of NMP which are not readily available. This was previously done but now requires a fresh initiative from the Department.

Commander Gayac replied on behalf of Philippine Coast Guard and Commander Gayac indicated that his agency was concerned to insure the qualifications of the Filipino Seamen and they would insure that the Philippine Coast Guard continues to support the NMP because of the role which the NMP plays in maintaining the competence of the Filipino Seamen.

Director Escandor on behalf of the National Economic and Development Authority stated that NMP

plays an important role in regional and national development. On a regional basis, NMP provide employment to the region while on a national level the seamen who trained at NMP contibute to the country's foreign exchange earnings.

Mr. Viray replied on behalf of Marina.

Mr. Hashimoto indicated that the JICA team would want to be informed of other steps being taken to promote NMP. Mr. Alfredo Antonio indicated that the Overseas Worker's Welfare Administration had agreed to NMP's proposal to make training at NMP one of the benefits for seamen. Mr. Antonio explained that each seaman who works abroad is required to make a contibution to the OWWA fund and under the terms of the NMP proposal a seaman who wishes to upgrade his skills would be granted a scholarship by OWWA provided that the seaman concerned had made 2 contributions to the fund. OWWA would provide each qualified seaman with Pesos 3,500.00 which would cover the seaman's cost of air fare, accommodation and meals, and the cost of 1 training module. The program will start in May this year and OWWA has already approved ₱ 600,000.00 towards the program.

Mr. Antonio also reported that last year the NMP conducted 5 familiarization tours of the Tacloban facilities for representatives of the various crewing agents in Manila. Those tours would be continued this year.

Mr. Miyanaga suggested that Marina has a role to play in supporting NMP with students for training and

instructors. Mr. Miyanaga requested Marina to support the president and Mr. Viray confirmed that Marina would continue to do so.

D. Proposed Amendments to the records of discussions signed on June 13, 1985

The topic was discussed with the other matters above.

E. Other matters (STCW endorsement)

Mr. Viray reported that the STCW was now a requirement for seamen serving on board inter-island ships.

F. Adjournment

There being no further business to transact, the meeting was adjourned after motion duly made and seconded.

APPROVED:

D. A. CRESENCIO SIDDAYAO — CAPT. GEORGE PIMENTEL

MR. ABELARDO VIRAY — ENG. F. P. DALAGETE

CAPT. DANIEL DELGADO — MR. ROMEO ESCANDOR

CERTIFIED CORRECT:

VALERIANO R. DEL ROSARIO
Secretary

NMP-JICA Technical Meetings

	Date	Place	Presiding Officer
1.	April 9, 1986	NMP Tacloban	Capt. Osamu Sano
2.	April 15, 1986	NMP Tacloban	Capt. Sano/Capt. Domingo
3.	April 28, 1986	-do-	Capt. Sano
4.	May 7, 1986	-do-	Capt. Sano/Capt. Campo
5.	May 21, 1986	-do-	-do-
6.	May 28, 1986	-do-	Capt. Sano
7.	June 11, 1986	-do-	Capt. Sano/Capt. Campo
8.	July 11, 1986	-do-	Capt. Sano/Capt. Montemayor
9.	July 30, 1986	-do-	Capt. Sano/Capt. Tañedo
10.	August 12, 1986	-do-	-do-
11.	September 17, 1986	-do-	Capt. Sano/Capt. Montemayor
12.	December 17, 1986	-do-	Capt. Sano/Capt. Tañedo
13.	Janaury 13, 1987	-do-	Capt. Sano/Capt. Domingo
14.	March 16, 1987	-do-	Capt. Sano/Capt. Tañedo
15.	April 8, 1987	-do-	Capt. Sano/Mr. Luis Padilla
16.	April 29, 1987	-do-	-do-
17.	May 26, 1987	-do-	-do-
18.	June 26, 1987	-do-	-do-
19.	August 7, 1987	-do-	Capt. Sano/Undersec Sto. Tomas
20.	October 15, 1987	-do-	Capt. Sano/Ms. Minda Vital
21.	November 27, 1987	-do-	-do-
22.	January 8, 1988	-do-	Capt. Koji Otani/Ms. Vital
23.	May 26, 1988	-do-	-do-
24.	March 9, 1989	-do-	Capt. Otani/Capt. Pimentel

NMP-JICA Joint Committee Meetings

1.	August 29, 1986	Office of the Minister, DOLE	Minister Augusto Sanchez/ Mr. M. Miyamoto
2.	September 24, 1987	NMP Manila officer	Undersec. Sto Tomas/ Mr. M. Miyamoto
3.	June 29, 1988	DOLE Executive Building, Manila	Undersec. Hechanova/ Mr. M. Miyamoto

訓練コース実施状況

	モジュール名	区分	専門家氏名 上段：前 下段：現	1985 1 2 3 4 5 6 7 8 9 10 11 12	1986 1 2 3 4 5 6 7 8 9 10 11 12	1987 1 2 3 4 5 6 7 8 9 10 11 12	1988 1 2 3 4 5 6 7 8 9 10 11 12	1989 1 2 3 4 5 6 7 8 9 10 11 12
航海向上コース	航法	計画	高瀬					
	PRACTICE OF NAVIGATION	実施	北橋					
	航海援助装置・気象	計画	湯川					
	AIDS TO NAV. METEOROLOGY	実施	早船					
	電子航海計器	計画	中川					
	ELECTORONIC NAVIGATION	実施	佐々木					
	トリム・スタビリティー	計画	湯川					
	TRIM/STABILITY/CONST.	実施	早船					
	載貨	計画	中川					
	SAFE CARGO STORAGE	実施	佐々木					
	操船	計画	中川					
	SHIP HANDLING/MANEUVER	実施	佐々木					
	レーダー基礎・取扱	計画	湯川					
	RADAR OBSERVER COURSE	実施	早船					
	レーダー・シミュレータ	計画	湯川					
	RADAR SIMULATOR COURSE	実施	早船					
	自動衝突予防装置	計画	湯川					
	AUTO RADAR PLOTTING AID	実施	早船					
タンカー・コース		計画	高瀬					
	DANGEROUS GOODS	実施	北橋					
	タンカー・セーフティー	計画	高瀬					
	TANKER SAFETY	実施	北橋					
	タンカー・オペレーション	計画	高瀬					
	TANKER OPERATION	実施	北橋					
	SOLAS	計画						
	SAFETY OF LIFE AT SEA	実施						

	モジュール名	区分	専門家氏名 上段：前 下段：現	1985 1 2 3 4 5 6 7 8 9 10 11 12	1986 1 2 3 4 5 6 7 8 9 10 11 12	1987 1 2 3 4 5 6 7 8 9 10 11 12	1988 1 2 3 4 5 6 7 8 9 10 11 12	1989 1 2 3 4 5 6 7 8 9 10 11 12
機関向上コース	電　　子	計画	若杉・清藤					
	ELECTROTECHNOLOGY	実施	御　幸					
	舶用電気	計画	若杉・清藤					
	MARINE ELECTRICITY	実施	御　幸					
	補助機関	計画	若杉・清藤					
	AUXILIARY SYSTEMS	実施	松　波					
	油圧装置	計画	若杉・清藤					
	HYDROMECHANICS	実施	松　波					
	蒸気機関	計画	若杉・清藤					
	STEAM PLANT	実施	松　波					
	内燃機関	計画	若杉・清藤					
	DIESEL PROPULSION	実施	松波・御幸					
	自動制御	計画	若杉・清藤					
	CONTROL ENGINEERING	実施	御　幸					
	冷凍機器	実施	若杉・清藤					
	REFRIGERATION	実施	松　波					

▨：実施されたコース
□：計画コース
☆☆：実施されなかったコース

N！ ＞１９８９年度訓練実施計画
フィリピン国立航海技術訓練所プロジェクト
（１９８９年度第１四半期）

平成 元年 4月5日現在

コース名	モジュール名	1月 2～6	1月 9～13	1月 16～20	1月 23～27	2月 30～3	2月 6～10	2月 13～17	2月 20～24	3月 27～3	3月 6～10	3月 13～17	3月 20～24	3月 27～31
航海向上課程	Practice of Navigation		3					3						6
航海向上課程	Aids to Nav & Meteorology				3					2				
航海向上課程	Electronic Navigation					4					3			
航海向上課程	Ship Trim & Stability				1				1					3
航海向上課程	Safe Cargo Handling & Stowage					1				1				
航海向上課程	Ship Handling & Manuevering						2				2			
航海向上課程	Radar Observer's Course		4				11				8			
航海向上課程	Radar Simulator Course				7				14					16
航海向上課程	Automatic Radar Plotting Aid					8				10				
SPC タンカー課程	Tanker Safety Course				36				9				17	
SPC タンカー課程	Tanker Operation Course					9				2				0☆☆☆☆
機関向上課程	Electrotechnology		5				2				2			
機関向上課程	Marine Electricity				10				7				☆☆☆☆	☆☆☆☆
機関向上課程	Auxiliary Systems		0☆☆☆☆	☆☆☆☆			4				3			
機関向上課程	Hydromechanics				0☆☆☆☆	☆☆☆☆			4				3	
機関向上課程	Steam Plant		1				2				2			
機関向上課程	Diesel Propulsion			0☆☆☆☆	☆☆☆☆	☆☆☆☆		1				1		
機関向上課程	Control Engineering		2				2				3			
機関向上課程	Refrigeration & Air-conditioning				1				3				0☆☆☆☆	☆☆☆☆
SPC	SOLAS		49			19				15				17
科別計	航海向上課程計		7	7	14	15	18	21	18	12	13	13	0	25
科別計	タンカー 計		0	0	36	9	9	0	9	2	2	0	17	0
科別計	機関向上課程計		8	7	11	11	10	9	15	15	10	9	4	4
科別計	SOLAS 計		49	49	49	19	19	13	15	15	15	0	0	17
総 計			64	63	110	54	56	49	57	44	40	22	21	46

ＭＰ１９８９年度訓練実施計画

フィリピン国立航海技術訓練所プロジェクト
（１９８９年度第２四半期）

平成　元年　４月６日現在

コース名	モジュール名		４月 3～7	10～14	17～21	24～28	５月 1～5	8～12	15～19	22～26	６月 29～2	5～9	12～16	19～23	26～30
航海科上級課程	Practice of Navigation	6													
	Aids to Nav & Meteorology														
	Electronic Navigation														
	Ship Trim & Stability														
	Safe Cargo Handling & Stowage	1													
	Ship handling & Maneuvering														
	Radar Observer's Course														
	Radar Simulator Course														
	Automatic Radar Plotting Aid	13													
ＳＰＣタンカー課程	Tanker Safety Course														
	Tanker Operation Course	☆☆☆☆☆													
機関科上級課程	Electrotechnology	2													
	Marine Electricity														
	Auxiliary Systems	1													
	Hydromechanics														
	Steam Plant	3													
	Diesel Propulsion														
	Control Engineering	8													
	Refrigeration & Air-conditioning														
ＳＰＣ	ＳＯＬＡＳ	20													
科別計	航海向上課程計		２０												
	タンカー　計		０												
	機関向上課程計		１４												
	ＳＯＬＡＳ　計		５０												
総　計			８４												

１９８９年度開設コース別訓練実績
[国立船舶技術訓練所プロジェクト]

但し、下段( )内は受講者数
*は特別訓練クラス

航海向上課程：	第1バッチ	第2バッチ	第3バッチ	第4バッチ	第5バッチ	第6バッチ	第7バッチ	第8バッチ	第9バッチ	第10バッチ	第11バッチ	第12バッチ
Practice of Navigation	1/13- 1/24 (3) / 3	2/15- 2/24 (3) / 6	3/27- 4/05 (6) / 12	5/30- 6/0 ( )	5/30- 6/08 ( )	6/30-7/11 ( )	8/02- 8/11 ( )	9/04- 9/13 ( )	10/03-10/12 ( )	11/03-11/14 ( )	/ - / ( )	/ - / ( )
Aids to Navigation	1/25- 1/31 (3) / 3	2/27- 3/03 (2) / 5	4/06- 4/12 (6) / 11	5/09- 5/15 ( )	6/09- 6/15 ( )	7/12- 7/18 ( )	8/14- 8/18 ( )	9/14- 9/20 ( )	10/13-10/19 ( )	11/15-11/24 ( )	/ - / ( )	/ - / ( )
Electronics Navigation	2/01- 2/14 (4) / 4	3/06- 3/17 (3) / 7	4/13- 4/26 (13) / 20	5/16- 5/29 ( )	6/18-6/29 ( )	7/17- 8/01 ( )	8/21- 9/01 ( )	9/21-10/02 ( )	10/20-11/02 ( )	11/22-12/05 ( )	/ - / ( )	/ - / ( )
Ship Stability / Construction	1/23- 1/27 (1) / 1	2/20- 2/24 (1) / 2	3/27- 3/31 (3) / 5	4/24- 4/28 ( )	5/22-5/26 ( )	6/19- 6/23 ( )	7/17- 7/21 ( )	8/14- 8/18 ( )	9/11- 9/15 ( )	10/09-10/13 ( )	/ - / ( )	/ - / ( )
Safe Cargo Stowage	1/30- 2/03 (1) / 1	2/27- 3/03 (1) / 2	4/03- 4/07 (1) / 3	5/01- 5/05 ( )	5/29-6/02 ( )	6/26- 6/30 ( )	7/24- 7/28 ( )	8/21- 8/25 ( )	9/18- 9/22 ( )	10/16-10/20 ( )	/ - / ( )	/ - / ( )
Ship Handling Maneuvering	2/08- 2/17 (2) / 2	3/08- 3/17 (2) / 4	4/10- 4/21 (1) / 5	5/08- 5/19 ( )	6/05-6/16 ( )	7/03- 7/14 ( )	7/31- 8/11 ( )	8/28- 9/08 ( )	9/25-10/06 ( )	10/23-11/03 ( )	/ - / ( )	/ - / ( )
Radar Observer Course (ROC)	1/09- 1/20 (4) / 4	2/06- 2/17 (11) / 15	3/06- 3/17 (8) / 23	4/10- 4/21 (5) / 28	5/08- 5/19 ( )	6/06- 6/16 ( )	7/03-7/14 ( )	7/31- 8/11 ( )	8/28- 9/08 ( )	9/25-10/06 ( )	10/23-11/03 ( )	/ - / ( )
Radar Simulator Course (RSC)	1/23- 1/27 (7) / 7	2/20- 2/24 (14) / 21	3/27- 3/31 (16) / 37	4/24- 4/28 ( )	5/22- 5/26 ( )	6/19- 6/23 ( )	7/17-7/21 ( )	8/14- 8/18 ( )	9/11- 9/15 ( )	10/09-10/13 ( )	11/06-11/10 ( )	/ - / ( )
Automatic Radar Plotting Aid	1/30- 2/03 (8) / 8	2/27- 3/03 (10) / 18	4/03- 4/07 (13) / 31	5/01- 5/05 ( )	5/29- 6/02 ( )	6/26- 6/30 ( )	7/24-7/28 ( )	8/21- 8/25 ( )	9/18- 9/22 ( )	10/16-10/20 ( )	11/13-11/17 ( )	/ - / ( )
タンカーコース：												
Tanker Safety Course	1/23- 1/27 (36) / 36	2/20- 2/24 (9) / 45	3/20- 2/24 (17) / 62	4/17- 4/21 ( )	5/15- 5/19 ( )	6/12- 6/16 ( )	7/10-7/14 ( )	8/07- 8/11 ( )	9/11- 9/15 ( )	10/23-10/27 ( )	11/20-11/24 ( )	/ - / ( )
Tanker Operation Course	1/30- 2/10 (9) / 9	2/27- 3/10 (2) / 11	3/27- 4/07 (0) / 11	4/24- 5/05 ( )	5/22- 6/02 ( )	6/19- 6/30 ( )	7/17-7/28 ( )	8/14- 8/25 ( )	9/18- 9/29 ( )	10/30-11/10 ( )	11/27-12/08 ( )	/ - / ( )
機関向上課程：												
Electrotechnology	1/09- 1/20 (5) / 5	2/06- 2/17 (2) / 7	3/06- 3/17 (2) / 9	4/03- 4/14 (2) / 11	5/01- 5/12 ( )	5/29- 6/09 ( )	6/26-7/07 ( )	7/24- 8/04 ( )	8/21- 9/01 ( )	9/18- 9/29 ( )	10/16-10/27 ( )	/ - / ( )
Marine Electricity	1/23- 2/03 (10) / 10	2/20- 3/03 (7) / 17	3/20- 3/31 (0) / 17	4/17- 4/28 ( )	5/15- 5/26 ( )	6/12- 6/23 ( )	7/10-7/21 ( )	8/07- 8/18 ( )	9/04- 9/15 ( )	10/02-10/13 ( )	10/30-11/10 ( )	/ - / ( )
Auxiliary Systems	1/09- 1/20 (0) / 0	2/06- 2/17 (4) / 4	3/06- 3/17 (3) / 7	4/03- 4/14 (1) / 8	5/01- 5/12 ( )	5/29- 6/09 ( )	6/26-7/07 ( )	7/24- 8/04 ( )	8/21- 9/01 ( )	9/18- 9/29 ( )	10/16-10/27 ( )	/ - / ( )
Hydromechanics	1/23- 2/03 (0) / 0	2/20- 3/03 (4) / 4	3/20- 3/31 (3) / 7	4/17- 4/28 ( )	5/15- 5/26 ( )	6/12- 6/23 ( )	7/10-7/21 ( )	8/07- 8/18 ( )	9/04- 9/15 ( )	10/02-10/13 ( )	10/30-11/10 ( )	/ - / ( )
Steam Plant	1/09- 1/13 (1) / 1	2/06- 2/10 (2) / 3	3/06- 3/10 (2) / 5	4/04- 4/07 (3) / 8	5/01- 5/05 ( )	5/29- 6/02 ( )	6/26-6/30 ( )	7/24- 7/28 ( )	8/21- 8/25 ( )	9/18- 9/22 ( )	10/16-10/20 ( )	/ - / ( )
Diesel Propulsion Plant	1/16- 2/03 (0) / 0	2/13- 3/03 (1) / 1	3/13- 3/31 (1) / 2	4/10- 4/28 (0) / 2	5/09- 5/26 ( )	6/05- 6/23 ( )	7/03-7/21 ( )	7/31- 8/18 ( )	8/28- 9/15 ( )	9/25-10/13 ( )	10/23-11/10 ( )	/ - / ( )
Control Engineering	1/09- 1/20 (2) / 2	2/06- 2/17 (2) / 4	3/06- 3/17 (3) / 7	4/03- 4/14 (8) / 15	5/01- 5/12 ( )	5/29- 6/09 ( )	6/26-7/07 ( )	7/24- 8/04 ( )	8/21- 9/01 ( )	9/18- 9/29 ( )	10/16-10/27 ( )	/ - / ( )
Refrigeration /Airconditioning	1/23- 2/03 (1) / 1	2/20- 3/03 (3) / 4	3/20- 3/31 (0) / 4	4/17- 4/28 ( )	5/15- 5/26 ( )	6/12- 6/23 ( )	7/10-7/21 ( )	8/07- 8/18 ( )	9/04- 9/15 ( )	10/02-10/13 ( )	10/30-11/10 ( )	/ - / ( )

1 9 8 8 訓練コース開催実績
[国立航海技術訓練所プロジェクト]

但し、下段（ ）内は受講者数とし、アンダーライン は年度開始以降の合計。＊は特別開講コース

航海向上課程：	第1バッチ	第2バッチ	第3バッチ	第4バッチ	第5バッチ	第6バッチ	第7バッチ	第8バッチ	第9バッチ	第10バッチ	第11バッチ	第12バッチ
Practice of Navigation	1/11-1/22 (8)/8	2/08-2/19 (6)/11	3/07-3/18 (2)/13		5/02-5/13 (7)/20	5/30-6/10 (1)/21	6/27-7/08 (3)/24	7/25-8/05 (3)/27	9/12-9/16 (2)/29	9/26-9/30 (4)/33	10/17-10/28 (3)/36	
Aids to Navigation	1/25-2/05 (8)/8	2/15-3/03 (6)/11	3/17-3/23 (1)/12		5/16-5/28 (7)/19	6/13-6/24 (2)/21	7/12-7/23 (3)/24	8/18-8/19 (3)/27	9/19-9/23 (5)/32			
Electronics Navigation	1/11-2/05 (8)/8	2/08-3/04 (6)/11	3/07-4/01 (2)/13		5/22-5/27 (7)/20	5/30-6/24 (1)/21	6/27-7/22 (3)/24	7/25-8/19 (3)/27	8/22-9/06 (2)/29	10/03-10/14 (4)/33		
Ship Stability / Construction	2/08-2/17 (8)/9	3/24-3/29 (3)/12		5/04-5/13 (2)/14	5/23-5/27 (2)/16	6/27-7/01 (1)/17		8/22-8/26 (3)/20	9/22-9/28 (3)/23	10/17-10/21 (3)/26		
Safe Cargo Handling	2/15-2/19 (9)/9			5/18-5/23 (6)/14				9/05-9/09 (2)/16	9/29-10/6 (2)/18	10/24-10/28 (2)/20		
Ship Handling Manoeuvering	2/22-3/03 (8)/8			5/03-5/20 (2)/10				8/29-9/02 (2)/12	10/10-10/14 (2)/14	11/04-11/11 (1)/15		
Radar Observer Course (ROC)	1/11-2/08 (3)/3	2/08-2/19 (2)/5 ＊2/29-3/04 (1)/8	3/07-3/18 (4)/10 ＊4/04-4/07 (4)/14	4/14-4/15 (3) 17	5/03-5/13 (4) 21	5/30-6/10 (5) 26	6/27-7/08 (7) 33	7/25-8/05 (4) 37	8/22-9/02 (6)/44 ＊8/09-8/16 (2)/39	9/19-9/30 (5) 49	10/17-10/28 (4) 53	11/14-11/25 (4) 57
Radar Simulator Course (RSC)	1/11-1/23 (3)/3	2/09-2/13 (3)/6	3/21-3/25 (10)/16	4/18-4/26 (5)/21	5/16-5/20 (6)/27	6/13-6/21 (3)/30	7/11-7/19 (10)/40	8/08-8/12 (6)/46	9/05-9/13 (8)/53	10/03-10/11 (6)/59	11/07-11/15 (3)/62	
Automatic Radar Plotting Aid (ARPA)	2/03-2/05 (13)/17 ＊1/25-1/27 (4)/4	2/29-3/04 (6)/26 ＊2/05-2/06 (4)/21	3/29-3/31 (6)/35 ＊2/15-2/17 (3)/29	4/07-4/09 (3)/38	4/27-4/29 (14)/52	6/25-6/27 (9)/61	6/22-6/24 (16)/78	7/20-7/22 (13)/89 ＊8/13-8/15 (7)/96	8/17-8/19 (1)/97 ＊8/24-8/26 (4)/101	9/14-9/16 (12)/113 ＊9/22-9/24 (11)/124	10/12-10/14 (12)/140 ＊9/30-10/02 (4)/128	11/16-11/18 (7)/151 ＊10/21-10/28 (4)/144
タンカーコース：（船会社からの要望により全バッチ特別開講クラス）												
Tanker Safety Course ＊	＊1/11-1/16 (28)/28	＊2/22-2/26 (19)/47	＊2/29-3/04 (12)/59		5/16-5/20 ＊(15)/74	＊7/11-7/15 (2)/76	＊7/18-7/22 (21)/97		＊9/26-9/30 (1)/98	＊10/07-10/12 (7)/105	＊10/24-10/28 (2)/107	
Tanker Operation Course ＊	＊1/15-1/19 (5)/5		＊3/02-3/12 (4)/9		5/16-5/26 ＊(3)/12	＊6/13-6/24 (1)/13	7/11-7/24 ＊(2)/15	＊8/08-8/19 (1)/16				
機関向上課程：												
Electrotechnology	1/01-1/23 (8)/8	2/02-2/13 (2)/10	2/09-2/13 (1)/11	3/14-3/25 (3)/14	4/04-4/15 (2)/16		5/16-5/27 (7)/23	6/06-6/17 (2)/25		7/18-7/29 (3)/28	10/10-10/21 (3)/31	
Marine Electricity	1/25-2/05 (5)/5	2/15-2/26 (13)/18		3/29-4/09 (2)/20	4/18-4/29 (2)/22		5/30-6/10 (9)/31	6/20-7/01 (1)/32	7/11-7/22 (1)/33	8/01-8/12 (4)/37		
Auxiliary Systems	2/08-2/19 (4)/4				5/02-5/13 (1)/5		6/13-6/24 (5)/10	7/04-7/15 (3)/13	7/25-8/05 (1)/14	8/15-8/26 (4)/18		
Hydromechanics	2/22-3/04 (4)/4			4/25-5/06 (2)/6	5/16-5/27 (3)/9		6/27-7/08 (4)/13	7/18-7/29 (1)/14		8/29-9/09 (6)/20		
Steam Plant			4/18-4/22 (2)/2	5/10-5/14		6/20-6/24 (3)/5				9/12-9/16 (2)/7		
Diesel Propulsion Plant	＊1/11-1/29 (11)/11	3/01-4/01 (1)/12	4/26-5/6 (1)/13	5/16-6/03 (2)/15	6/06-6/24 (3)/18	6/27-7/15 (2)/20	7/18-8/05 (3)/23	8/08-8/26 (2)/25	8/29-9/16 (1)/26	9/19-10/07 (4)/27		
Control Engineering	4/04-4/15 (2)/13 ＊2/01-2/12 (11)/11	4/26-5/06 (1)/14	5/16-5/27 (6)/20	6/06-6/17 (3)/23	6/27-7/08 (4)/27	7/18-7/29 (2)/29	8/08-8/19 (2)/31	8/29-9/09 (1)/32	9/19-9/30 (1)/33	10/10-10/21 (8)/41		
Refrigeration /Airconditioning	4/18-4/20 (1)/1			6/20-7/01 (2)/3		8/01-8/12 (1)/4		9/12-9/23 (1)/5		10/24-11/04 (8)/13		

ＮＭＰＴＣ訓練生受講実績

平成 元年 4, 1現在

1．科目別：(登録者数)

	1983	1984	1985	1986	1987	1988	1989	TOTAL
航海関向上講習科目	0	0	0	9	108	245		
機関関向上講習科目	0	0	0	13	44	71		
特別講習科目（タンカー・コース）	0	0	0	5	17	115		
ＳＯＬＡＳ	1196	1539	471	214	213	241	150	4024
機器特別熱コース	0	0	0	4	73	47		
			協力開始後の受入人数	245	455	719		

11．モジュール別受講者数：

DECK DEPARTMENT：

Practice of Navigation	5	25	36	12	78
Aids to Navigation	6	25	32	5	68
Electronics Navigation	5	28	33	7	73
Ships Stability/Construction	3	12	26	5	46
Safe Cargo Handling	－ －	11	20	3	34
Ship Handling Maneuvering	5	11	15	4	35
Radar Observor Course (ROC)	3	13	57	23	96
Radar Simulator Course (RSC)	2	1	62	37	102
Automatic Radar Plotting Aid (ARPA)	－ －	37	151	31	219
RSC & ARPA	5	24	－－	－－	29
モジュール合計（年別）	34	187	432	127	780

ENGINE DEPARTMENT：

Electrotechnology	3	12	31	11	57
Marine Electricity	5	21	37	17	80
Auxiliary Systems	5	15	18	8	46
Hydromechanics	4	12	20	7	43
Steam Plant	1	4	7	8	20
Diesel Propulsion Plant	7	19	27	2	55
Control Engineering	2	11	41	15	69
Refrigeration & Airconditioning	4	12	13	4	33
モジュール別合計（年別）	31	106	194	72	403

SPECIAL COURSES (TANKER)：

Tanker Safety Course	5	17	107	62	191
Tanker Cargo Handling Course	－ －	－－	16	11	27
モジュール別合計（年別）	5	17	123	73	218

Republic of the Philippines
NATIONAL MARITIME POLYTECHNIC
Cabalawan, Tacloban City

January 7, 1988

TO : Administrative Officer II - noted 8/1/7/88

ATTN : Registrar/Cashier/Accountant

FROM : EVP

SUBJ : New Upgrading Fees as Approved by the NMP Board of Trustees.

Please be informed that effective January 1988 the New fees for each Upgrading module as approved by the NMP Board of Trustees on November 3, 1987 are as follows:

Deck Upgrading

Practice of Navigation/Compasses	₱ 513.
Aids to Navigation	531.
Electronic Navigation	926.
Ship Stability/Construction	714.
Safe Cargo Handling/Stowage	539.
Ship Handling/Manuevering	11362.
Radar Observer Course	739.

Marine Engine Upgrading

Electrotechnology	661.
Basic & Advance Electricity	1,095.
Auxiliary Systems	681.
Hydromechanics	708.
Steam Plant	618.
Diesel Propulsion Plant	1,986.
Control Eng'g.	671.
Refrigeration	590.

Maritime Specializatio Upgrading

Radar Simulator Course (RSC)	₱ 806.
Automatic Radar Plotting Aid (ARPA)	806.
Tanker Safety Courses	527.
Tanker Operation Course/Cargo Handling Simulator	1,188.

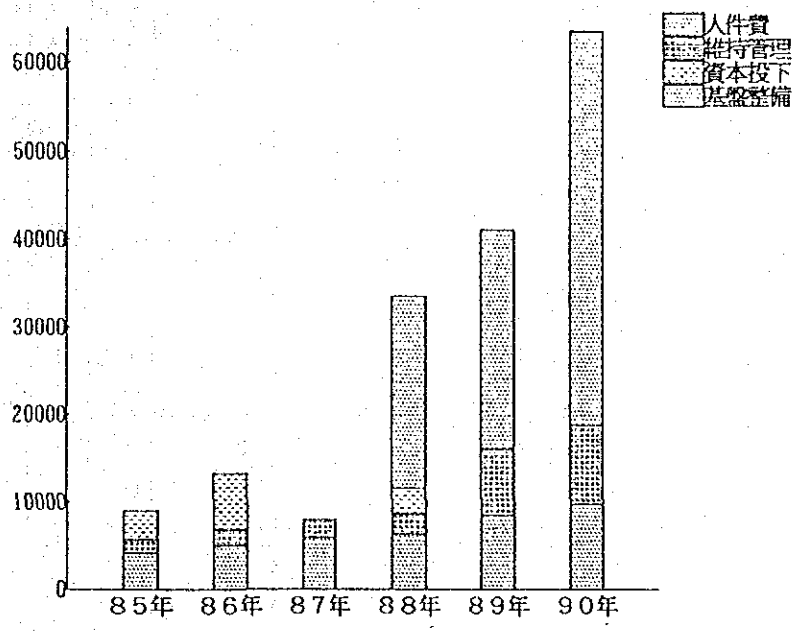
SOLAS Courses

Fire Fighting	P 284.70
Proficiency in Survival Craft	218.30
Survival at Sea	208.80
Ship Medicine	142.35
Maritime Leadership & Behavior Deelopment	94.90

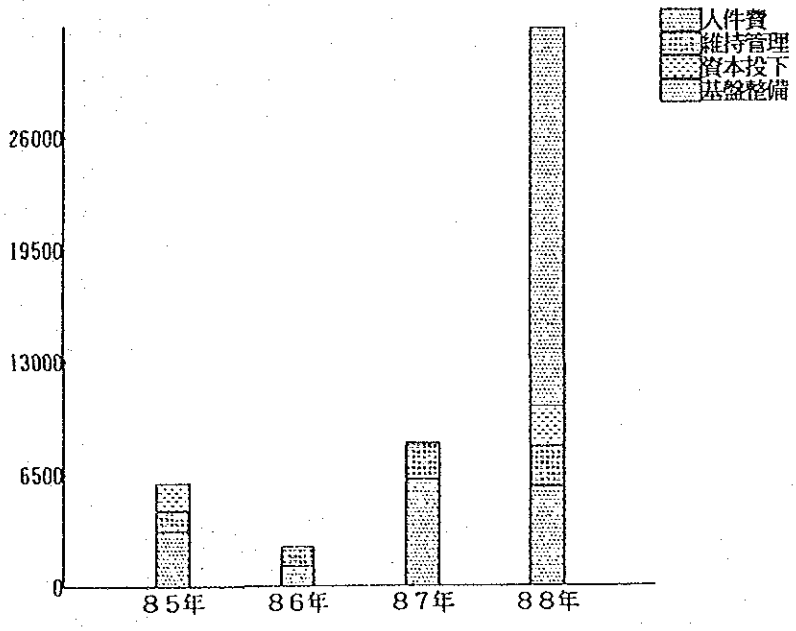
Mrs. Minda C. Vital
Executive Vice President

ＮＭＰプロジェクト比側予算推移

予　　算　　承　　認　　額



ＮＭＰ予算獲得実績



ＮＭＰ予算執行状況
［相手国政府負担分］

［平成　元年　4月　3日］
＊単位：千ペソ
（　）：前年度比

予算項目			１９８５年度	１９８６年度	１９８７年度	１９８８年度	現在までの計	１９８９年度	１９９０年度
ＮＭＰ全体（一般会計）	人件費	承認	4，135	5，001 (+866)	5，892 (+891)	6，359 (+467)	21，387	8，532 (+2，173)	9，729 (+1，197)
		支出	3，233	1，175 (−2，058)	6，126 (+4，951)	5，772 (−354)	16，306		
	維持管理費	承認	1，566	1，926 (+360)	2，153 (+227)	2，369 (+216)	8，014	7，627 (+5，258)	9，121 (+1，494)
		支出	1，219	1，175 (−44)	2，153 (+978)	2，356 (+203)	6，903		
	資本投下費	承認	3，342	6，440 (+3，098)	0 (−6，440)	2，987 (+2，987)	9，759	155 (−2，832)	0
		支出	1，585	0 (−1，585)	0 (+−0)	2，292 (+2，292)	3，877		
一般会計合計		承認	9，043	13，367 (+4，324)	8，045 (−5，322)	11，715 (+3，670)	42，170	16，314 (+4，599)	18，850 (+2，536)
		支出	6，037	2，350 (−3，687)	8，279 (+5，929)	10，420 (+2，141)	27，086		
（ＦＡＰ）基盤整備費			0	0	0	22，000 内訳：系建設 フェンス 整地	22，000	25，000 内訳：護岸工事 ホール建設 機材購入	45，000 内訳：系建設 整地 機材購入
ＮＭＰ予算総計：		承認	9，043	13，367 (+4，324)	8，045 (−5，322)	33，715 (+25，670)	64，170	41，314 (+7，599)	63，850 (+22，536)
		支出	6，037	2，350 (−3，687)	8，279 (+5，929)	33，420 (+25，141)	50，086		

備　考：

① ９０年度予算は申請額であり、予算委員会における聴聞会が４～５月に開催される予定にある。

② ８８年度の基盤整備費は、事務器紛上（入札手続）の遅れにより８９年６月最終入札終了後実施される見込である。

③ ８７年度までは教育省からの予算割当を受けていたが、８８年度以降Ｅ／Ｏにもとずき労働雇用省に移管した。

④ ８６年度における予算の減額支出は政権交代後の行政混乱期により発生したものと予想される。

⑤ ＦＡＰ枠は海外からの協力期間中のみ申請が可能。（９０年度は日制延長期間により左右される）

LAND & INFRASTRUCTURE
(Philippine Counterpart)

Former Owner	Lot No.	Title No.	Area (sq. m)	P R I C E
Benjamin Abella	4293-A	T-1214	53,803	₱ 430,424.00
Benjamin Abella	4293-C	T-1214	13,715	109,720.00
Pedro Buolatan	4295-A	P-300	9,520	76,160.00
Virginia Montaño	4288-A	P-258	539	4,312.00
Primitiva Gonzales	4292-A	N-258	26,710	213,680.00
Primitiva Gonzales	4294-A	OCT 29466	50,141	401,128.00
T O T A L			154,428	₱1,235,424.00
Add: Land Acquisition in 1985:				
Cesario Sepaco		No title yet	2,157	43,140.00
Total Sq. M.			156,585	₱1,278,564.00

PLUS: Site Development	
1981-₱ 604,576.00 ; 1985-₱ 21,570.00	626,146.00
TOTAL, as accounted, 12/31/86 (TOTAL COST)	₱1,904,710.00

The Total Buildings & Structures are accounted as follows:

Ratings Dormitory	₱ 7,180,157.00
4 units, Executive Houses	2,364,914.67
6 units, School Buildings	2,632,288.00
1 unit, Dormitory Canteen	527,316.29
Major repair of 4 units, Executive Houses; 6 units, School Buildings; and 1 unit Dormitory Canteen damaged by Typhoon 'Undang'	1,321,000.00
Site Development & other items not yet clearly identified	5,378,065.22
T O T A L	₱ 19,403,741.18

■ : 在籍期間

N M P 管理要員配置表

氏名	1984	1985	1986	1987	1988	1989
	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9
(BOT議長) CHAIRMAN, BOT						
Blas Ople (大臣) '78より	■ (1–12)	■ (1–12)				
Agusto Sanchez (大臣)			■ (4–9)			
Franklin Drilon (大臣)			■ (9–12)	■ (1–2)		
Patricia Sto Tomas (次官)				■ (3–12)	■ (1–3)	
A[illegible]nio Hechanova (次官)					■ (4–12)	■ (1–4)
(校長) NMP PRESIDENT						
Benjamin Tanedo '79より	■ (1–12)	■ (1–12)	■ (1–12)	■ (1–2)		
Luis Padilla				■ (2–12)	■ (1–4)	
Alfredo Antonio (OIC)					■ (5–12)	
George Pimentel						■ (1–4)
(副校長)						
Emilio Prieto	■ (10–12)					
Hermenegildo Domingo		■ (2–12)	■ (1–12)	■ (1–2)		
Minda Vital				■ (2–12)	■ (1–4)	

氏名	1984	1985	1986	1987	1988	1989
	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9
(海運部長) VP MARITIME						
Santiago Torres '83.10						
Antonio Subijano						
Ricardo Montemayor						
Mariano Alcaraz						
Celso Alvarez						
'e Cortez (OIC)						
Enrique Acupinpin						
Noel Japos (OIC)						
Exequiel Campo						
(総務部長) VP ADM & FINAN						
Antonio Lantin Bello '83.10[illegible]						
Rudolfo Barorgan						
Rodulfo Cascon						
Antonio Lantin Bello						
Anthony Nicanor						
(企画調査部長)						
Abelardo Oca						
Hermenegildo Domingo						
Marietta Bulawan						
Alfredo Antonio						

氏　　名	1984												1985												1986												1987												1988												1989								
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9
(消滅科長)																																																											
Emilio Quinto																																																										
Dominador de la Cuz																																																									
Abx Quilantang																																																									
Jude Cortez																																																									
Genis Murallos (OIC)																																																									
(機関科長)																																																									
Rudolfo Cascon																																																									
Jorge Factuar																																																									
Noel Japos																																																									
Eluminado Hinagsis																																																									
(スペシャル科長)																																																									
Exequiel Campo																																																									
Jovit Camcam																																																									
druno Lamprea																																																									
Luciano Briones																																																									
Joselito Erum																																																									

Professors: (no vacancy)

1. Capt. Exequiel S. Campo - Vice President, Maritime Training
2. Exaltacion M. Cinco - Head, Library & Museum
3. Noel T. Japos - One year leave without pay
4. Jorge S. Factuar - One year leave without pay
5. Wilson P. Travilla - Engine Division
6. Iluminado M. Hinagpis - Acting Head, Engine
7. Jude C. Cortez - One year leave without pay
8. Genis S. Murallos - acting Head, Deck
9. Manuel M. de Leon - Electronic Navigation System
10. Rommel T. Gacutan - not yet reported (10 April 1989)
11. Joselito B. Erum - Acting Head, Special Courses
12. Rosita C. Beringuel - Head, Support Section
13. Elmer E. Pangue - Head, Maintenance
14. Anthony R. Nicanor - VP, Admin & Finance
15. Remedios C. Cagulada - Executive Assistant
16. Marietta B. Bulawan - Applied for early retirement
17. Rodolfo B. Cascon - Applied for early retirement

Associate Professors: (5 vacant positions)

1. Rosana R. Sevilla - Office of the President, NMP
2. Dinah R. Gonzales - Applied for early retirement
3. Pedro I. Militante - Hydraulics (Engine Division)
4. Tirso R. Puray - Engine Department (Diesel Propulsion)
5. Dennis G. Tan - ROC, RSC, ARPA (Deck Division)
6. Evelyn P. Canono - Registrar
7. Elbert N. Sente - Maintenance
8. Reynaldo D. Tanudtanud - Maintenance

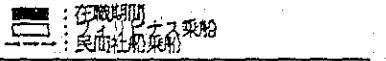
Assistant Professors: (7 vacant positions)

1. Doris R. Manuel - Applied for early retirement
2. Mario N. Guiñez - Engine Division (Steam Plant)
3. Alfredo S. Turla - One year leave without pay
4. Narciso M. Montilla, Jr. - Deck Division (Practice of Navigation)
5. Adriano M. Dominise, Jr. - Deck Division (Aids to Navigation)
6. Emmanuel Jesus M. Laguitan - Special Courses (Tanker Safety Course)
7. Gil G. Brasileño - Special Courses (First Aid at Sea)
8. Dominador S. Almonte - SOLAS Course Director
9. Crispo H. Salinas - Special Courses (MLBO)
10. Melba L. Esquibel - Special Courses (First Aid at Sea)

Instructors: (5 vacant positions)

1. Robert G. Arandia - Engine Division (Marine Electricity)
2. Claro L. Coscos - Auxiliary System
3. Jesus D. Aquino - Special Courses (Survival at Sea)
4. Restituto de la Flor - Hospitalized
5. Teofilo R. Nieto - Special Courses (Fire Fighting)
6. Zacarias G. Rosete - Special Courses (Proficiency in Survival Craft)
7. Dominador V. Bitago - Special Courses (Survival at Sea), pending CSC
8. Filomeno M. Idio - Special Courses (Fire Fighting), on process
9. Mariano F. Nisperos - Special Courses (Radio Telephony, Tanker Safety)
10. Hector R. Ignacio - Maintenance

カウンターパート配置表



	カウンターパート氏名	1985												1986												1987												1988												1989											
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航海	アレックス・キランタン																																																												
航海	ジュード・コルテス																																																										
航海	ロメル・ガクタン																																																									
航海	マニュエル・デ・レオン																																																									
航海	ジェニス・ムラロス																																																									
航海	エデュアルド・コルデロ																																																									
航海	デニス・タン																																																									
航海	アドリアノ・ドミニセ																																																									
航海	ナルシソ・モンテリア																																																									
航海	ホニト・カムカム																																																									
航海	ワルサー・マオ																																																									
航海	エドガード・パネス																																																									
航海	エンリケ・アクピンピン																																																									
航海	フェルディナンド・ゴー																																																									
航海	パブロ・ヴィダル																																																									
タンカー	ホセリト・エルム																																																									
タンカー	ルシアノ・ブリオネス																																																									
タンカー	エマニュエル・ラギタン																																																									
タンカー	ブルノ・ランプレア																																																									

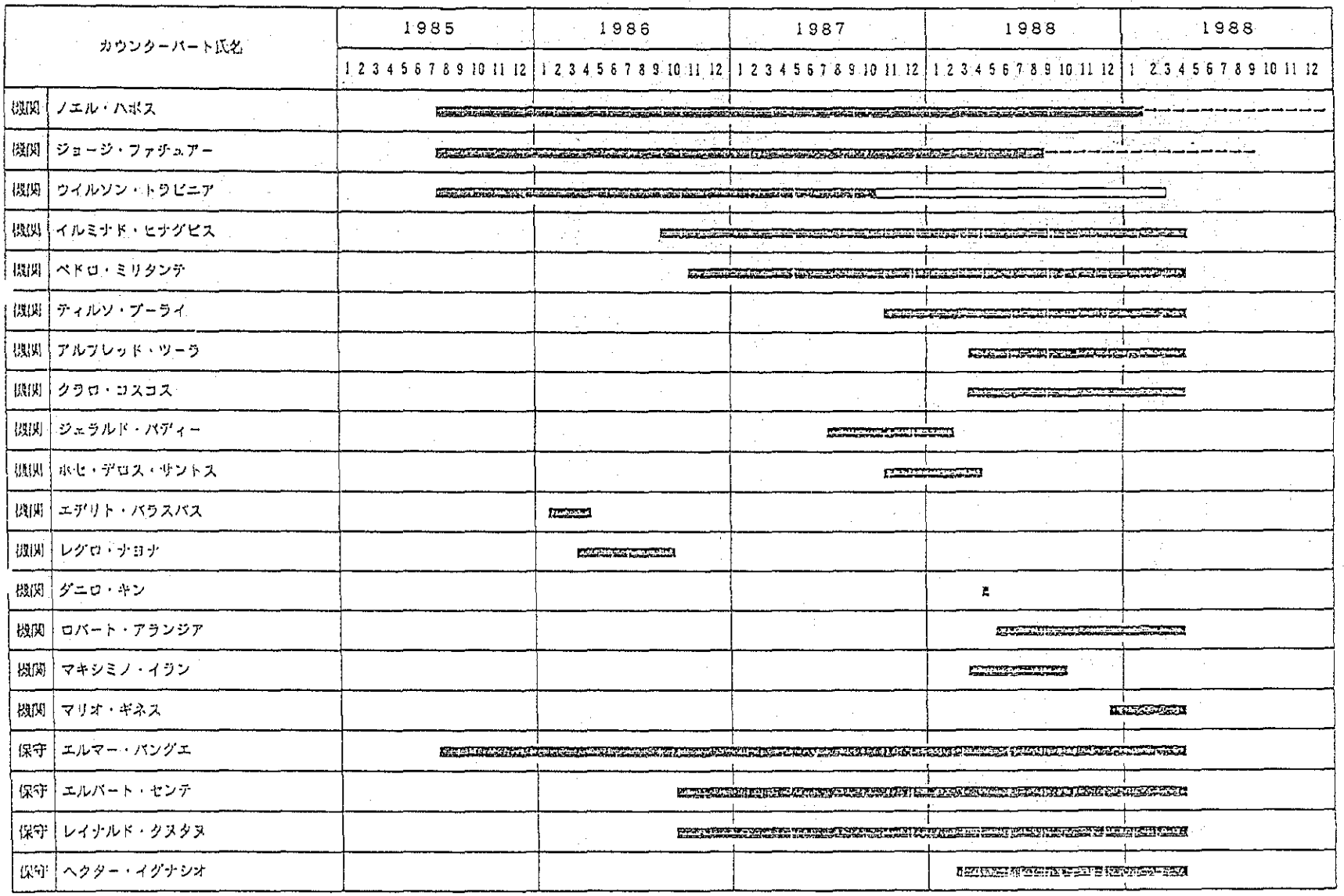
カウンターパート氏名
1985
1986
1987
1988
1988
1 2 3 4 5 6 7 8 9 10 11 12
機関 ノエル・ハボス
機関 ジョージ・ファチュアー
機関 ウイルソン・トラビニア
機関 イルミナド・ヒナグピス
機関 ペドロ・ミリタンテ
機関 ティルソ・ブーライ
機関 アルフレッド・ツーラ
機関 クラロ・コスコス
機関 ジェラルド・バディー
機関 ホセ・デロス・サントス
機関 エデリト・バラスバス
機関 レグロ・ナヨナ
機関 ダニロ・キン
機関 ロバート・アランジア
機関 マキシミノ・イラン
機関 マリオ・ギネス
保守 エルマー・バングエ
保守 エルバート・センテ
保守 レイナルド・クヌタヌ
保守 ヘクター・イグナシオ

TABLE OF CONTENTS

DR

DECK STAFF ACTUAL NUMBER OF TEACHING HOURS RENDERED
1988

Instructors	Courses Handled	No. of Batches	No. of Hours per Module	Actual No. of Teaching Hours Rendered	Total
MANUEL M. DE LEON	Electronic Navigation Systems	9 + 1*	20 days half day or 80 hours	800	800
ADRIANO M. DOMINISE JR.	Aids to Navigation/Meteorology	2	2 days half day	16	16
[illegible]	Aids to Navigation/Meteorology	8	10 days half day or 40 hours	320	
	Practice of Navigation	4	10 days half day	160	
	- do -	2	10 days half day	(80)	560
NARCISO M. MONTILLA JR.	Practice of Navigation	5	10 days half day	200	
	- do -	1	10 days half day	(40)	240
ENRIQUE T. ACUPINPIN	Shiphandling and Maneuvering	3	3 days whole day	24	
	Radar Simulator Course	2	2 days whole day	16	40
GENIS S. MURALLOS	Shiphandling and Maneuvering	4 + 1*	20 days half day	400	
	Ship's Trim and Stability	6 + 1*	10 days half day	280	
	Safe Cargo Handling and Stowage	4	10 days half day	160	
	Radar Simulator Course	1	7 days whole day or 56 hours	56	896

FERDINAND T. GO	Radar Observers' Course	4	10 days whole day or 80 hours	320	
	- do -		5 days whole day	(40)	
	- do -	1**	5 days whole day or 40 hours	40	
	- do -	4***	1 day half day	16	416
DENNIS C. TAN	Radar Observers' Course	7	10 days whole day	560	
	- do -		5 days whole day	(40)	
	- do -	2***	1 day half day	8	
	Radar Simulator Course	1	7 days whole day or 56 hours	56	
	- do -		3.5 days whole day	(28)	
	Automatic Radar Plotting Aid	4 + 2*	3 days whole day or 24 hours	144	836
JUDE C. CORTEZ	Radar Observers' Course	1**	5 days whole day or 40 hours	40	
	- do -	1***	1 day half day	4	
	Radar Simulator Course	7 + 1*	7 days whole day or 56 hours	448	
	- do -		3.5 days whole day	(28)	
	Automatic Radar Plotting Aid	8 + 6*	3 days whole day	336	856

Note:

( ) indicate two instructors conducted the course
* special class conducted
** revalidation/refresher course conducted
*** revalidation examination conducted

Prepared by:

ZENAIDA EUGENIA A. DOLINA
Deck Department Secretary

Noted by:

GENIS S. MURALLOS
OIC, Dean

ACTUAL RUNNING HOURS OF DECK SIMULATOR/EQUIPMENT
IN THE CONDUCT OF TRAINING
1988

	Module	No. of Running Hours	No. of Batches/Student	Actual Running Hours
DU 1	Electronic Navigation Systems	80 hours per batch	9 + 1* batches	800 hours
DU 2	Shiphandling and Maneuvering	9 hours per student	16 students	144 hours
DU 3	Radar Observers' Course	8 hours per batch	12 batches	96 hours
DU 4	Radar Simulator Course	48 hours per batch	10 + 1* batches	528 hours
DU 5	ARPA	20 hours per batch	12 + 8* batches	400 hours
DU 6	Aids to Navigation/Meteorology	24 hours per day	not needed	8160 hours
DU 7	Practice of Navigation	TAMAYA calculator	9 batches (34 students)	not applicable
DU 9	Ship's Trim and Stability	no equipment needed	not needed	not applicable
DU 10	Safe Cargo Stowage and Handling	no equipment needed	not needed	not applicable

Note: Actual running hours for maintenance and repair of simulator is not included.

Prepared by:

ZENAIDA EUGENIA A. DOLINA
Secretary, Deck Department

ACTUAL RUNNING HOURS OF DECK SIMULATOR/EQUIPMENT
IN THE CONDUCT OF TRAINING

1987

Module		No. of Running Hours	No. of Batches/Student	Actual Running Hours
DU 1	Electronic Navigation Systems	80 hours per batch	5 batches	400 hours
DU 2	Shiphandling and Maneuvering	9 hours per student	11 students	99 hours
DU 3	Radar Observers' Course	8 hours per batch	5 batches	40 hours
DU 4	Radar Simulator Course	48 hours per batch	3 + 1* batches	192 hours
DU 5	ARPA	20 hours per batch	3 + 6* batches	180 hours
DU 6	Aids to Navigation/Meteorology	24 hours per day	not needed	8160 hours
DU 7	Practice of Navigation	TAMAYA calculator	5 batches (25 students)	not applicable
DU 9	Ship's Trim and Stability	no equipment needed	not needed	not applicable
DU 10	Safe Cargo Stowage and Handling	no equipment needed	not needed	not applicable

Note: Actual running hours for maintenance and repair of simulator is not included.

Prepared by:

ZENAIDA A. DOLINA
Secretary, Deck Department

Republic of the Philippines
NATIONAL MARITIME POLYTECHNIC
Cabalawan, Tacloban City

April 7, 1989

TO: VP Maritime Training

From: Acting Head Special Courses

Subject: Running Hours of Equipment, report of

IN compliance with the VPMT Order no. 05-89 dated 4 April 1989, the following data is hereby submitted for the year 1988.

Equipment	NO. of BATCHES	RUNNING HOURS/Batch	TOTAL
1. Hydraulic Power unit/valves	10	1	10
2. Level Gauge Control	10	1	10
3. Cargo Handling Simulator	10	42	420
4. Loading Computer	10	10	100

Joselito B. Erum

ENGINE'S TEACHING STAFF
ACTUAL TEACHING HOURS
1986

FACULTY	COURSE	ACTUAL T. HOURS	NO. of BATCHES	TOTAL (HRS.)
ELMER E. PANGUE	ELECTROTECHNOLOGY	80/batch	6	480
NOEL T. JAPOS	MARINE ELECTRICITY	80/batch	6	480
	D. PROP. 2-STROKE	80/batch	1	80
	AUX. MACH. SYS. (divided)	16 hours	1	16
	STEAM PLANT (divided)	18 hours	1	18
PEDRO I. MILITANTE	HYDROMECHANICS	80/batch	6	480
	STEAM PLANT (divided)	4 hours	1	4
MAXIMINO L. IRAN	D. PROP. 4-STROKE	40/batch	3	120
JORGE S. FACTUAR	D. PROP. 2-STROKE	80/batch	6(reg) & 1 (sp)	560
	AUX. SYS. (divided)	16 hours	1	16
ILU HINAGPIS	CONTROL ENG'G.	80/batch	10(reg) & 1(sp)	880
	STEAM PLANT(divided)	18 hours	1	18
	AUX. MACH. SYS. (divided)	16 hours	1	16
ALFREDO TURLA	REFRIGERATION/AIR COND.	80/batch	3	240
	-do- (divided)	40 hours	1	40

(1988 cont.)

CLARO COSCOS	AUX. MACH. SYS.	80/batch	4	320
	REF:/AIR COND. (divided)	40 hours	1	40
	AUX. MACH. SYS.(divided)	16 hours	1	16
ROBERT G. ARANDIA	MARINE ELECTRICITY	80/batch	2	160
TIRSO PURAY	D. PROP.4-STROKE	40/batch	5	200
	STEAM PLANT	40/batch	3	120
	AUX. MACH. SYS. (divided)	16 hours	1	16
REYNALDO TANUDTANUD	ELECTROTECHNOLOGY	80/batch	1	80
JOSE DE LOS SANTOS	AUX. MACH. SYS.	80/batch	1	80

ENGINE'S TEACHING STAFF
ACTUAL TEACHING HOURS
1987

FACULTY	COURSE	ACTUAL T. HOURS	NO. OF BATCHES	TOTAL (HRS.)
ELMER E. PANGUE	ELECTROTECHNOLOGY	80/batch	3	240
NOEL T. JAPOS	MARINE ELECTRICITY	80/batch	4	320
	4 STROKE (DIESEL PROP.)	40/batch	1	40
	CONTROL ENGINEERING	80/batch	1	80
ILUMINADO HINAGPIS	4 STROKE (DIESEL PROP.)	40/batch	4	160
JORGE S. FACTUAR	2 STROKE (DIESEL PROP.)	80/batch	5	400
	STEAM PLANT	40/batch	2	80
WILSON P. TRAVIÑA	REF./AIR COND.	80/batch	3.5	280
	CONTROL ENGINEERING	80/batch	3	240
	AUXILIARY SYSTEMS	80/batch	1.5	120
	MARINE ELECTRICITY	80/batch	1	80
GERARDO PADIE	AUXILIARY SYSTEMS	80/batch	2	160
PEDRO I. MILITANTE	HYDROMECHANICS	80/batch	4	320

ENGINE'S TEACHING STAFF
ACTUAL TEACHING HOURS
1986

FACULTY	COURSE	ACTUAL T. HOURS	NO. of BATCHES	TOTAL (HRS.)
JORGE S. FACTUAR	HYDROMECHANICS	80/batch	1	80
NOEL T. JAPOS	MARINE ELECTRICITY	80/batch	1	80
	CONTROL ENG'G.	80/batch	1	80
	REF/AIR COND.	80/batch	1	80
ELMER E. PANGUE	ELECTROTECHNOLOGY	80/batch	1	80
ILU HINAGPIS	D. PROP. 4-STROKE	40/batch	1	40
WILSON P. TRAVIÑA	AUXILIARY MACH. SYS.	80/batch	1	80
ANTONIO SUBIJANO	STEAM PLANT	40/batch	1	40
PEDRO I. MILITANTE	none	-	-	-

ENGINE'S TEACHING STAFF
ACTUAL TEACHING HOURS
1986

FACULTY	COURSE	ACTUAL T. HOURS	NO. of BATCHES	TOTAL (HRS.)
JORGE S. FACTUAR	HYDROMECHANICS	80/batch	1	80
NOEL T. JAPOS	MARINE ELECTRICITY	80/batch	1	80
	CONTROL ENG'G.	80/batch	1	80
	REF/AIR COND.	80/batch	1	80
ELMER E. PANGUE	ELECTROTECHNOLOGY	80/batch	1	80
ILU HINAGPIS	D. PROP. 4-STROKE	40/batch	1	40
WILSON P. TRAVIÑA	AUXILIARY MACH. SYS.	80/batch	1	80
ANTONIO SUBIJANO	STEAM PLANT	40/batch	1	40
PEDRO I. MILITANTE	none		-	-

Republic of the Philippines
NATIONAL MARITIME POLYTECHNIC
Cabalawan, Tacloban City

Number of Faculty/Training Staff

POSITIONS	Teaching	Non-Teaching	One Year Leave	Detailed ../MS Fil.	Early Retirement	Resigned	Total
1989							
Professor	6	4	4	1	2	–	17
Associate Professor	6	–	–	1	–	–	7
Assistant Professor	9	–	–	–	–	–	9
Instructor	11	–	–	–	–	–	11
T O T A L	32	4	4	2	2	–	44
1988							
Professor	8	4	3	–	1	1	17
Associate Professor	6	–	–	–	1	4	11
Assistant Professor	9	–	–	–	–	2	11
Instructor	10	–	–	–	–	–	10
T O T A L	33	4	3	–	2	7	49
1 9 8 7							
Professor	9	7	1	–	2	1	20
Associate Professor	9	1	–	–	1	–	11
Assistant Professor	5	1	–	–	–	–	6
Instructor	11	–	–	–	2	1	13
T O T A L	34	9	1	–	5	1	50
1 9 8 6							
Professor	5	8	–	1	–	–	14
Associate Professor	4	3	–	–	–	–	7
Assistant Professor	5	1	–	–	–	–	6
Instructor	12	1	–	–	–	–	13
T O T A L	26	13	–	1	–	–	40

Prepared by:

Rowena Y. Marquez
Mar. Res. Assist. I

日本でのカウンターパート研修状況

カウンターパート氏名 （担当分野）	研修 科目	研修場所 及び期間	研修結果	現在の状況
ベンジャミン・クニード （校長）	表敬	海技教育機構及び関連機関 1984年 1月23日～2 月03日		1987年3月 退職
アレックス・キランタン （航海向上課程）	航海技術研修 機器取扱実習 練習船乗船	海技大学校・海上防災センター・船会社・航海訓練所・中北東京計器・ＩＨＩ・古野・三井造船 1985年10月16日～12月17日		1988年6月 退職
ロメル・ガクタン （航海向上課程）				1987年10月より 上級免状取得のため 休職中（民間船社乗組）
ジョージ・ファクチュアー （航海向上課程）	機関技術研修 機器取扱実習 練習船乗船	海技大学校・海上防災センター・船会社・航海訓練所・三菱横河電気・ＩＨＩ・寺崎・ヤンマー・三井造船・川重 1985年10月16日～12月17日		1988年9月より 上級免状取得のため 休職中（民間船社乗組）
ノエル・ハボス （航海向上課程）				1989年2月より 上級免状取得のため 休職中（民間船社乗組）
マニュエル・デ・レオン （航海向上課程）	航海技術研修 機器取扱実習 練習船乗船	ＩＨＩ・川崎汽船・海技大学校・古野電気・航海訓練所 1986年10月05日～12月23日		航海科教授 電子航海担当
ホセリト・エルム （航海向上課程）				航海科教授 タンカーコース兼任 航法及びタンカー担当
ジェニス・ムラロス （航海向上課程）				航海科教授 操船・トリム&スタビティー担当
ウイルソン・トラピニア （機関向上課程）	機関技術研修 機器取扱実習 練習船乗船	ＩＨＩ・寺崎電気・海技大学校・横河電気・航海訓練所 1986年10月05日～12月23日		休職中 89年4月17日復帰予定
エルマー・バンギエ （保守）	保守技術研修 機器取扱実習 練習船乗船			保守課長　教授 電子コース教授
デニス・タン （航海向上課程）	航海技術研修 機器取扱実習 練習船乗船	古野電気・三井造船・海技大学校・海上防災センター・横河電気・ＩＨＩ 1987年 6月08日～ 9月04日		航海科准教授 レーダー・ＡＲＰＡ担当
エルバート・センテ （保守）	保守技術研修 機器取扱実習 練習船乗船			保守課．准教授 航海科機器保守担当
レイナルド・タヌタヌ （保守）		古野電気・三井造船・海技大学校・海上防災センター・横河電気・ＩＨＩ 1987年 6月08日～ 9月04日		保守課　准教授 機関科機器保守担当
イルミナド・ヒナグピス （機関向上課程）	機関技術研修 機器取扱実習 練習船乗船			機関科教授 自動制御担当
アドリアノ・ドミニセ （航海向上課程）	航海技術研修 機器取扱実習 練習船乗船	航海訓練所・海技大学校・古野電気・日本郵船・海上防災センター・ＩＨＩ タンカー見学 1988年 8月02日～11月04日		航海科助教授 気象担当
エマニュエル・ラギタン （タンカー・コース）	タンカー技術研修 機器取扱実習 練習船乗船			スペシャル科助教授 タンカー担当
ティルソ・プーライ （機関向上課程）	機関技術研修 機器取扱実習 練習船乗船	古野 → 寺崎電気を除き同上 1988年 8月02日～11月04日		機関科准教授 イサイクルエンジン担当
ジュード・コルテス （航海向上課程）	船員教育行政	運輸省・ＭＩＣＣ・海技大他 1988年10月20日～11月30日		1989年1月より 上級免状取得のため 休職中（民間船社乗組）

カウンターパート育成状況評価表　　　　　　　　　　　　　　　　　　　　　　平成元年 4月06日現在

所属	担当科目	氏名	所有免状	年令	配属年月	学歴	職位	J研 I修 C年 A度	海上実歴 /：職員歴	技術修得状況	教材指導能力	実技指導能力	教材作成能力	訓練計画作成能力	機材操作能力	機材保守能力	訓練評価能力	クラス運営能力	総合評価
航海	休職中（'89 年12月復帰予定）	ジュード・コルテス	2／M	28	'84. 5. 1	国立商船大卒	教 授	S.63	3. 0／1. 0	a	a	a	a	a	a	a	a	a	a
航海	Electronics Navigation	マニュエル・デ レオン	3／M	29	'85. 7. 1	国立商船大卒	教 授	S.61	1. 5／0	a	a	a	b	b	a	a	a	a	a'
航海	Trim/Cargo Handling/Ship Handling	ジェニス・ムラロス	3／M	26	'85. 7. 1	国立商船大卒	教 授	S.61	2. 0／0	a	a	b	b	a	a	a	a	a	a'
航海	'89 年4月復帰予定	ロメル・ガクタン	3／M	29	'85. 7. 1	国立商船大卒	教 授	S.60	2. 0／1. 0										
航海	Practice of Navigation/Meteorology	ホセリト・エルム	2／M	28	'86. 6.18	セブ中央大学卒	教 授	S.61	3. 2／1. 2	a	a	a	a	a	a	a	a	a	a
航海	RSC・ARPA	デニス・タン	3／M	28	'86. 6.16	セブ中央大学卒	准教授	S.62	2. 0／0	b	b	b	b	b	a	b	a	a	b
航海	Meteorology	アドリアノ・ドミニセ	3／M	30	'88. 3.16	国立商船大卒	助教授	S.63	4. 0／0	b	b	b	c	b	b	b	b	b	b
航海	Practice of Navigation	ナルシソ・モンテリア	3／M	25	'88. 3.20	セブ中央大学卒	助教授		2. 0／0	a	a	a	b	a	a	b	b	a	a'
航海	Radar Observer	フェルディナンド・ゴー	3／M	25	'88. 6.14	セブ中央大学卒	講 師		1. 0／0	a	a	a	b	b	b	a	b	a	a'
タンカー	Tanker Safety/Operation	ホセリト・エルム	2／M	28	'86. 6.18	セブ中央大学卒	教 授		3. 2／1. 2	a	a	b	a	a	b	a	a	a	a'
タンカー	Tanker Safety/Operation	エマニュエル・ラギタン	2／M	32	'88. 4. 4	セブ中央大学卒	助教授	S.63	9. 0／8. 0	b	b	b	b	b	b	b	b	b	b
機関	休職中（'90 年2月復帰予定）	ノエル・ハボス	3／E	30	'85. 7. 1	国立商船大卒	教 授	S.60	2. 4／0	a	a	a	a	a	a	a	a	a	a
機関	休職中（'89 年9月復帰予定）	ジョージ・ファクチュア	3／E	31	'85. 7. 1	国立商船大卒	教 授	S.60	3. 5／2. 5	a	a	a	a	a	a	a	a	a	a
機関	'89 年4月17日復帰	ウイルソン・トラビニア	4／E	30	'85. 7. 1	国立商船大卒	教 授	S.61	2. 5／1. 5										
機関	Control Engineering	イルミナド・ヒナグビス	4／E	29	'86. 9.29	国立商船大卒	教 授	S.62	2. 0／0	b	b	a	a	a	a	a	a	a	a
機関	Hydromechanics	ペドロ・ミリタンテ	M／E	39	'86.10.13	デ・ラサール大学卒	准教授		0. 0／0	a	a	a	a	a	a	b	b	a	a
機関	Diesel Propulsion	ティルソ・ブーライ	4／E	32	'87.10.28	国立商船大卒	准教授	S.63	4. 0／3. 0	a	a	a	a	a	b	b	a	a	a
機関	Refrigeration/Air-conditioning	アルフレッド・ツーラ	4／E	49	'88. 3. 4	マニュエル・エル・ケソン大卒	助教授		0. 0／0	b	a	b	a	a	b	b	a	a	a'
機関	Auxiliary System	クラロ・コスコス	4／E	33	'88. 3.21	フィリピン 海事訓練校卒	講 師		3. 7／0. 2	b	b	b	a	a	b	b	b	b	b
機関	Marine Electricity	ロバート・アランジア	A. E／E	33	'88. 5. 1	ディバイン・ワード 大学卒	講 師		0. 0／0	b	b	b	b	b	b	b	b	b	b
機関	Steam Plant	マリオ・ギネス	4／E	36	'88.12. 5	セブ中央大学卒	助教授		5. 0／5. 0	c	c	c	c	c	c	c	c	c	c
保守	Electrotechnology	エルマー・バングエ	E／E	26	'85. 7. 1	サン・カルロス 大学卒	教 授	S.61	0. 0／0	a	a	a	a	a	a	a	a	a	a
保守		エルバート・センテ		27	'86.10. 6	サン・カルロス 大学卒	准教授	S.62	0. 0／0	a			a		a	a	a		a
保守		レイナルド・クヌクヌ		26	'86.10. 6	サン・カルロス 大学卒	准教授	S.62	0. 0／0										
保守		ヘクター・イグナシオ	E／E	25	'88. 2.22	ザ・イースト 大学卒	講 師		0. 0／0										

評価基準　a：調査時点で修得　b：R／D終了までに修得可　c：R／D終了までに修得未完了

	モジュール名 （下段：担当教官名／教官名）	開講時期	訓練期間	教科書完成	視聴覚教材完成	C／Pへの技術移転度	指導マニュアル完成	メモ	備考
	PRACTICE OF NAVIGATION/COMPASSES 土 橋／ナルシソ・モンテリア（3/M） ホセリト・エルム（2/M）	１９８６年 ９月０５日	１０日間 但半日コース	印刷中		９５％終了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
航海向上課程	AIDS TO NAVIGATION/METEOROLOGY 早 船／アドリアノ・ドミニセ（3/M） ホセリト・エルム（2/M）	１９８６年 １０月０３日	１０日間 但半日コース	原稿作成中	既存ＶＴＲ フィルム利用	エルムー 終了 ドミニセ－ ４０％	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
	ELECTRONICS NAVIGATION SYSTEM 佐々木／マニュエル・デ レオン（3/M）	１９８６年 ７月３０日	２０日間 但半日コース	１９８９年 完成済	既存ＶＴＲ フィルム利用	９０％終了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
	SHIP STABILITY/TRIM/CONSTRUCTION 早 船／ジェニス・ムラリョス（3/M）	１９８６年 １０月０３日	１０日間 但半日コース	１９８９年 完成済		９０％終了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
	SAFE CARGO STOWAGE 佐々木／ジェニス・ムラリョス（3/M）	１９８６年 １０月１５日	１０日間 但半日コース	１９８７年 完成済		９０％終了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
	SHIP HANDLING/MANEUVERING 佐々木／ジェニス・ムラリョス（3/M）	１９８６年 ７月３０日	２０日間 但半日コース	１９８７年 完成済	既存ＶＴＲ フィルム利用	９０％終了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
	RADAR OBSERVER (R. O. C.) 早 船／フェリクンド・ゴー（3/M）	１９８６年 ９月０５日	日間 ５		既存ＶＴＲ フィルム利用	９０％終了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
	RADAR SIMULATOR (R. S. C.) 早 船／デニス・タン（3/M）	１９８６年 ９月１９日	日間 ５		既存ＶＴＲ フィルム利用	ｺﾙﾃｽ－ 終了 タン－ ７５％	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
	AUTOMATIC RADAR PLOTTING AID 早 船／デニス・タン（3/M）	１９８６年 ９月１７日	日間 ５		既存ＶＴＲ フィルム利用	ｺﾙﾃｽ－ 終了 タン－ ７５％	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
タンカー課程	DANGEROUS GOODS COURSE 土 橋／		日間 ５			適当な人材の補充され ず ０％	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		開講実績無
	TANKER SAFETY COURSE 土 橋／ エマニュエル・ラモタン（2/M）	１９８６年 １１月２４日	日間 ５	原稿作成中	既存ＶＴＲ フィルム利用	１０％終了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
	TANKER OPERATION/CARGO HANDLING 土 橋／ホセリト・エルム（2/M）	１９８６年 １０月１６日	日間 １０	シミュレーターによる 不要	既存ＶＴＲ フィルム利用	８５％終了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－未完		
機関向上課程	ELECTROTECHNOLOGY 御 幸／ユルマー・パングス	１９８６年 ７月３１日	日間 １０	１９８７年 完成済	既存ＶＴＲ フィルム利用	７０％終了	ＶＴＲ－完成済 ﾏﾆｭｱﾙ－完成済		
	MARINE ELECTRICITY 御 幸／ロバート・アランジア（4/E）	１９８６年 ８月２７日	日間 １０	１９８７年 完成済	既存ＶＴＲ フィルム利用	５０％終了	ＶＴＲ－製作中 ﾏﾆｭｱﾙ－完成済		
	AUXILIARY SYSTEM 松 波／クロ・コスコス（4/E）	１９８６年 ８月２０日	日間 ５	１９８９年 完成済	既存ＶＴＲ フィルム利用	終 了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－完成済		
	HYDROMECHANICS 松 波／ボロ・ミリクファ	１９８６年 ９月１０日	日間 ５	１９８７年 完成済	既存ＶＴＲ フィルム利用	終 了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－完成済		
	STEAM PLANT 松 波／ティルソ・ブーライ（4/E）& アリオ・ギネス（4/E）	１９８６年 １０月２２日	日間 ５	１９８９年 完成済	既存ＶＴＲ フィルム利用	ブーライ８０％ ギネス ３０％	ＶＴＲ－未完 ﾏﾆｭｱﾙ－完成済		
	DIESEL PROPULSION 松 波／ティルソ・ブーライ（4/E）	１９８６年 １０月０１日	日間 １５	１９８９年 完成済	既存ＶＴＲ フィルム利用	終 了	ＶＴＲ－完成済 ﾏﾆｭｱﾙ－完成済		
	CONTROL ENGINEERING 御 幸／イルミナド・ヒナグビス（4/E）	１９８６年 ９月１７日	日間 １０	１９８７年 完成済	既存ＶＴＲ フィルム利用	８５％終了	ＶＴＲ－完成済 ﾏﾆｭｱﾙ－完成済		
	REFRIGERATION 松 波／ アルフレッド・ヴァーラ（4/E）	１９８６年 ８月１４日	日間 ５	１９８７年 完成済	既存ＶＴＲ フィルム利用	８０％終了	ＶＴＲ－未完 ﾏﾆｭｱﾙ－完成済		

訓練科目別教科指導能力評価表

年　月　日

科目	科果	題目	カウンターパート氏名									
			ジュード・コルテス	マニュエル・デレオン	ジェニス・ムラロス	ロメル・ガクタン	E. コルデロ	ホセリト・エルム	デニス・タン	アドリアド・ドミニセ	ナルシソ・モンテリア	F. ゴー
航海	PRACTICE OF NAVIGATION/COMPASSES	航法						a			a	
航海	AIDS TO NAVIGATION/METEOLOGY	航海援助装置・気象						a			b	
航海	ELECTRONIC NAVIGATION SYSTEM	電子航海計器		a								
航海	SHIP STABILITY/TRIM	トリム・スタビリティー			a							
航海	SAFE CARGO STOWAGE	積荷			a							
航海	SHIP HANDLING/MANEUVERING	操船			a							
航海	RADAR OUSERVER COURSE	レーダー基礎・取扱							a			b
航海	RADAR SIMULATOR COURSE	レーダー・シミュレーター	a						b			
航海	AUTOMATIC RADAR PLOTTING AID	自動衝突予防装置	a						b			
			ホセリト・エルム	E. ラモクン								
タンカー	DANGEROUS GOODS COURSE		X	X								
タンカー	TANKER OPERATION COURSE		a	b								
タンカー	TANKER SAFETY COURSE		b	b								
			メエル・ハボス	J. ファクチュアー	W. トラピニア	I. ヒナグビス	ペドロ・ミリクンテ	ティルソ・ブーライ	アルフレッド・サーラ	クラロ・コスコス	ロバート・アランジア	マリオ・ギネス
機関	MARINE ELECTRICITY	船用電気				b					b	
機関	AUXILIARY SYSTEM	船用補機		a	a	b				b		
機関	HYDROMECHANICS	油圧装置	b	a			a					
機関	STEAM PLANT	蒸気機関						a				
機関	DIESEL PROPULSION 2-cycle	内燃機関	b	a	b							
機関	DIESEL PROPULSION 4-cycle	内燃機関		a	b	a		a				
機関	CONTROL ENGINEERING	自動制御			a	b						
機関	REFRIGERATION	冷凍機器			a	a			b	b		
			エルマー・バンギエ	R. タヌドクタド	H. イグナシオ							
機関	ELECTROTECHNOLOGY	電子	a	a	c							

評価基準　a：満点時点で修得（技術移転完了）　b：R／D終了時までに修得可（技術移転完了見込）　c：R／D終了時までに修得未完了（引き続き技術移転必要）

教科書・教材作成状況

年　月	教科書・教材名（頁数）	科　目	C／Pの作成関与の有無／状況
'87年 9月	SHIP HANDLING	航海向上	C　講習時活用　(前)
'87年11月	TRIM & STABILITY	航海向上	C　図表校正中　(前)
'88年12月	PRACTICE OF NAVIGATION	航海向上	C　印刷手続中
'87年度	SAFE CARGO STOWAGE	航海向上	C　講習時活用　(前)
'89年 1月	ELECTRONIC NAVIGATION SYSTEM	航海向上	C　講習時活用
'87年度	AUTO CONTROL	機関向上	C　講習時活用　(前)
/年度	ABRIDGED MANUAL ON PRACTICE ELECTRONICS	機関向上	C　講習時活用　(前)
'87年度	REFRIGERATOR & AIR-CONDITION	機関向上	C　講習時活用　(前)
'87年12月	ENGINE SYLLABUS	機関向上	C　講習時活用　(前)
'87年 9月	HYDRO MECHANICS	機関向上	C　講習時活用　(前)
'87年度	ELECTRONIC & ELECTRICAL FUNDAMENTALS　VOL - I - 1	機関向上	(写)　講習時活用　(前)
'87年度	ELECTRONIC & ELECTRICAL FUNDAMENTALS　VOL - I - 2	機関向上	(写)　講習時活用　(前)
'87年度	ELECTRONIC & ELECTRICAL FUNDAMENTALS　VOL -II - 1	機関向上	(写)　講習時活用　(前)
'87年度	ELECTRONIC & ELECTRICAL FUNDAMENTALS　VOL -II - 2	機関向上	(写)　講習時活用　(前)
年12月	DIESEL PROPULSION　2-CYCLE	機関向上	C　講習時活用　(前)
'88年 8月	DIESEL PROPULSION　4-CYCLE	機関向上	C　講習時活用
'88年11月	AUXILIALY MACHINERY	機関向上	C　講習時活用
'88年11月	STEAM PLANT	機関向上	C　講習時活用

注）C／Pの作成関与とは教材、教科書の内容に直接係わる部分で、タイプ、翻訳等は含まない。
C／Pの作成関与の有無・状況については下記を参照願います。

（例）1．専門家が原稿を作成、C／Pが翻訳・・・・・・・・・・・・・・・・・・（A）
2．専門家とC／Pが共同で執筆、C／Pが翻訳・・・・・・・・・・・・・・（B）
3．専門家がC／Pへ教科書、教材作成の技術指導、C／Pが英語で執筆・・・（C）

年月は原稿完成時を記入
(写)：他の書籍を100%コピー
(前)：前半派遣専門家による作成のため詳細不明

COMMENTS AND PROPOSED AMENDMENTS TO THE ANNEX OF THE RECORDS OF DISCUSSION DATED JUNE 13, 1985

I. PHILIPPINE COUNTERPART PERSONNEL AND ADMINISTRATIVE PERSONNEL

At present, counterpart personnel in Maritime Training could not be adequately provided in terms of quantity and quality.

1. In terms of experience requirement, this could not be met because of the very high qualification criteria. The recruited counterpart personnel are mostly Junior Merchant Marine Officers only, with less than the required number of working experience on their license. This is specially true in Deck, Engine and Special Courses. However, requirement is met in the Maintenance Department.

   This provision should be amended to "Appropriate highest license of competency with the equivalent sea service or experience."

2. The number of counterpart personnel for Special Course Department should be amended to the present number of modules offered.

II. FRAMEWORK OF TRAINING COURSES UNDER THE TENTATIVE SCHEDULE OF IMPLEMENTATION

Deviations from the Record of Discussions were implemented along the following areas:

Upgrading Courses

1) As envisioned, there should have been homogeneous groupings of trainees in the upgrading courses by rank/license level. Instead of having separate classes for Master Mariners, Chief Mates, 2nd Mates and 3rd Mates, all trainees were grouped together regardless of rank. Same was true with the Engine and Special courses.

2) The targetted number of trainees (40/course, or a total of 80 trainees/year for each category of license) could not be met despite the heterogeneous groupings.

3) Each upgrading course designed for 15 weeks has been fragmented into a number of modules with varied training durations. The whole deck upgrading course is divided into nine (9) separate modules, each with a particular duration. Engine department has eight (8) modules.

4) Consequently, the targetted frequency of 2 times/year could not be implemented. Instead, a yearly schedule of classes which is by module is approved by the Board of Trustees.

5) The targetted number of participants (80/yr/license) could not be attained because of minimal enrollment despite the agency's marketing efforts. Instead, the agency has committed a total aggregate number of 3,000 trainees per year (1,500 for upgrading courses; 1,500 for SOLAS).

6) Entry requirements, specifically age and sea experience could not be implemented. Instead, the NMP considers only the license for admission to the upgrading courses.

7) Radar Observer Course (ROC) and Radar Simulator Course (RSC) are classified as Special Courses. These courses are proposed to be included in the upgrading courses for Navigation Department.

8) Tanker Operation course is presently offered to support course Tanker Safety.

9) Ship Medicine is not offered under Special Course but presently included in the SOLAS Courses. Likewise, Firefighting, a 3-day course is classified under SOLAS.

１９８７年度　計画打合せ調査団ミニッツ

ミニッツ内容	現状
1、船員教育及び海技免状発給の面において、海事行政におけるＮＭＰの役割の明確化。	数ある訓練センターの中で、PMMA（私立大学）と並んで最高位のセンター（[illegible]）として認められる努力が必要。海技免状発給の面及び海事行政の面においては、直接N.M.Pが、NMPの方から働きかけて、その役割を明確化することは困難。
2、ＮＭＰの訓練コースのマンダトリー化、又は海技免状発給制度においてＮＭＰ受講者を付与すること。	MARINA MC No.1 及び #41-A の規定にみられるとおり。NMPのみを特別扱いとすることは不可能と思料される。
3、他の海事機関によるＮＭＰサポート体制の確立。	学校長及び担当者の今後の努力に期待。但し他の国の協力の存在も考慮する要あり。
4、Ｒ／Ｄを充足するＣ／Ｐの確保及びＮＭＰの副校長、~~学科長~~訓練部長の就任。	C/Pの確保及び訓練部長として最適の人材の早急な確保を引き続き要求する。
5、１９８８年１月開始となっているＮＭＰ／ＮＭＦとの交流計画（ Fuculty Shipboard Rotation Scheme ）の導入。但し、本計画によりＮＭＰの本来業務を阻止しないこと。	M/S フィリピーナスの運航状況と過去の経緯により、既にNMP－NMFの校長は合意ずみ。教官の乗船研修ローテーションは一般の船で実施中。
6、（要望）ＮＭＰ教官の採用は、一般公募により厳選の上採用すること。	特に強調して頂きたい点。JICA EXPERTとの合同評価によることが望ましい。
7、Ｃ／Ｐ研修員の受入については、新規採用者も含めることを調査団はコミットした。	本日同様、引き続きお願いしたい項目。
8、乗船員のサラリーに見合うサラリー体系を、ＮＭＰ教官職に適用するプランを比側は提示した。	本日までの比側の説明により、御理解いただいたとおり、別な給与表の適用は不可能。
9、奨学金、ローン制度の導入により受講者の増大を図る。具体的には、受講者数を１９８８年上半期に１９８７年の２倍、１９８８年の下半期に上半期の２倍の訓練生を受入れる。	OWWAが実施。船主協会で独自に開始したいところなんだ、どちらかと[illegible]FSAは非協力的? 保険計画に[illegible]のない[illegible]。
10、マーケティング担当副校長の任命。	一昨年12月にアントニオ氏が大統領指名により就任。但しその手腕は如何?
11、マーケティング計画（短期／長期）を策定し、ＪＩＣＡに報告する。	JICAへの早急な連絡を要請して頂きたい。
12、１９８７年の実施予算と１９８８年予算について報告があった。	ご承知のとおり。
13、予算事務担当官を新たに採用すること。	採用できる手段においては認めるものの、その人格については難あり。
14、（要望）ＮＭＰは、現行Ｒ／Ｄ期間内に、供与機材のメンテナンスシステムを確立すること。	強く求めてお願いしたい点。
15、１９８８年ＮＭＰ訓練計画の説明を受け、十分な予算、有能なＣ／Ｐの採用、マーケティングの強化等をチームは要望した。	
16、（要望）１９８８年の予算が決まる１９８７年１１月末までに、１９８８年次の訓練計画を提示のこと。	訓練計画の策定に際しては、JICA EXPERTとよく協議すること。

MEMORANDUM CIRCULAR NO. 41-A

TO : ALL FILIPINO DECK, ENGINE AND RADIO OFFICERS AND RATINGS FORMING PART OF NAVIGATIONAL OR ENGINE WATCH, SHIPPING COMPANIES AND MANNING AGENCIES

SUBJECT : REVISED GUIDELINES FOR THE ISSUANCE OF ENDORSEMENT CERTIFICATES AND RATING'S CERTIFICATE IN COMPLIANCE WITH THE REQUIREMENTS OF 1978 STCW CONVENTION

Please be informed that in its meeting on 21 January 1989, the Board approved the following guidelines, amending MC#41,for the issuance of certificates pursuant to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) 1978 which was acceded and deposited to the International Maritime Organization (IMO) by the Philippine Government on 11 January and 22 February 1984, respectively, and Executive Order Nos. 125 and 125-A, to wit :

A. SCOPE AND COVERAGE

1. OFFICERS

a. All certificates of competency which were issued before 22 May 1984, the date in which the Convention entered into force for the Philippines, shall be recognized as valid for service and will be endorsed in accordance with the Convention to show their validity, only upon application and payment of the appropriate fee. Such certificates of competency are those issued by the Professional Regulations Commission (PRC) for deck and engine officers and by the National Telecommunications Commission , for radio operators/officers.

b. All certificates of competency which were issued on or after 22 May 1984 but before 22 May 1989 (the end of the five-year transition period allowed by the Convention) shall also be recognized as valid for service, provided however that the seafarers had commenced their sea service before 22 May 1984, within the specific ship department to which those certificates relate. Such Certificates will be endorsed in accordance with the Convention to show their validity only upon application and payment of the appropriate fee.

c. All certificates of competency which were issued on or after 22 May 1984 but before 22 May 1989, to seafarers who had commenced their sea service on the same period will require endorsement in accordance with the Convention in order to show their validity and upon application and payment of the appropriate fee. Such endorsement will be issued only to seafarers who have attended the upgrading courses conducted by any of the training schools recognized/accredited by MARINA.

d. All certificates of competency issued to seafarers on 22 May 1989 and thereafter, shall be strictly in compliance with the provision of the Convention, and therefore, holders are required to attend the necessary upgrading courses conducted by any of the training schools recognized/accredited by MARINA. Such certificates will be endorsed in accordance with the Convention to show their validity upon application and payment of appropriate fee.

2. RATINGS

a. Only seamen performing deck or engine watchkeeping duties shall be certificated/endorsed.

b. Ratings who have served as Able Seaman or Oiler shall be qualified for certification/endorsement.

c. Ratings who hold either AMT/BSMT or AME degree and have undergone a year of apprenticeship in deck department or two years of shipboard training in engine department may be qualified for certification/endorsement.

B. CERTIFICATES ISSUED

1. CERTIFICATE OF ENDORSEMENT

a. All deck, engine and radio officers shall be required to have their licenses endorsed by the Maritime Industry Authority (MARINA) provided, however, that the said licenses are authenticated by the respective agencies which issued them. Likewise, they must present/submit documents e.g. health certificate, Seaman's Book for the required sea service, the required STCW training certificates, and other requirements as may be deemed necessary by MARINA.

b. Officers and ratings who are to have specific duties and responsibilities in connection with cargo and cargo equipment on oil, chemical or liquefied gas tankers shall take and complete a specialized training program appropriate to their duties and type of ship they are to board. Certificates obtained from special training shall have to be endorsed by MARINA.

2. RATING'S CERTIFICATE

Only seafarers forming part of navigational or engine watch shall be issued the Rating's Certificate, provided they comply with the following requirements:

a. At least 18 years of age;

b. Must have passed a thorough physical examination particularly regarding eyesight (including color perception)and hearing from a MARINA accredited/recognized hospital or clinic;

c. Must have served on board vessels of:

in deck dept.- 250 GRT for at least six(6) months as part of navigational watch.
in engine dept.- 750 KW for at least one (1) year as part of engine watch;

d. For High School graduates and undergraduates of Maritime Courses, must have successfully undergone special training on Navigational or Engine Watchkeeping Courses;

e. For ratings cited under A.2.c of this M.C. must submit a copy of Diploma or Transcript of records;

f. Must present Certificate/Certification of training on Fire-fighting , First Aid, Personal Survival Technique and Survival Craft; and

g. Other requirements as may be deemed necessary by MARINA.

3. REPLACEMENT OF LOST CERTIFICATE

Any officer or rating who loses his original endorsement certificate must report immediately to MARINA and apply for a replacement provided he submits an affidavit and pays the appropriate fee.

C. CONTINUED PROFICIENCY AND UPDATING OF KNOWLEDGE

1. Every deck, engine and radio officer holding a certificate who is serving at sea or intends to return to sea after a period ashore in order to continue to qualify for sea-going service in the rank appropriate to his certificate shallbe required to have his certificate revalidated by the Maritime Industry Authority (MARINA) at intervals not exceeding five years. Such revalidation is subject to the satisfaction of the Administration as to the following:

(a) his medical fitness, particularly regarding eyesight and hearing, including speech for radio officers;

(b) his professional competence:

(i) by approved sea-going service as Deck/Engineer officer or Radio officer of at least one year during the preceding five years; or

(ii) by virtue of having performed functions relating to the duties appropriate to the grade of certificate held which are considered to be at least equivalent to the sea-going service required in paragraph 1(b) (i); or

(iii) by one of the following:

- passing an approved test; or
- successfully completing an approved course or courses; or
- having completed approved sea-going service as a deck officer/engineer officer or as a radio officer for a period of not less than three months in a supernumerary capacity immediately prior to taking up the rank to which he is entitled by virtue of his certificate.

2. The course or courses referred to in paragraph 1(b) (iii) above shall include, in particular, changes in the relevant international regulations and recommendations concerning safety of life at sea and the protection of the marine environment.

D. APPLICANT

1. Seafarers seeking endorsement or certification may apply in person provided they submit the required documents to MARINA.

2. Shipping companies and manning agencies through their liaison officers, shall be permitted to apply in behalf of their seafarers. In case, the seafarers being applied for are already employed on board ships and the required documents to be submitted are incomplete, the applicant company shall be required to submit an affidavit guaranteeing the veracity of the said documents, letter-request from employer, and employment contract.

E. FINES AND PENALTIES

1. Any person who submits any false statement or misrepresentation in his application, fraudulent certificates or documents shall be disqualified to practice his profession, and subject to criminal prosecution under Revised Penal Code and Administrative penalty of P20,000.00.

2. Shipping companies or manning agencies requesting or recommending endorsement for and/or in behalf of a particular seaman shall be held responsible for the documents submitted to this Authority and if any of which is found to be spurious, the company shall be made liable to the following Administrative fine:

First Infraction	-	P100,000.00
Second Infraction	-	P200,000.00 and suspension of company's License for (1) one month
Third Infraction	-	Cancellation of company's license by the proper agency upon recommendation of MARINA

In addition, the responsible officials of the Company or Agency shall be subject to criminal prosecution under the Revised Penal Code.

E. SCHEDULE OF FEES:

1. Issuance of endorsement certificate including authentication of documents..... P200.00 per certificate

F. EFFECTIVITY

This Memorandum Circular shall take effect fifteen (15) days after publication in the Official Gazette.

Strict compliance herewith is hereby enjoined.

Manila, Philippines.

PHILIP S. TUAZON
Administrator

Approved:

RAINERIO O. REYES
Secretary of Transportation
and Communications

Attested By:

ARTURO C. MOJICA
Chairman
Maritime Industry Board

REQUIREMENTS FOR
DECK, ENGINE AND RADIO OFFICERS
REQUESTING FOR ISSUANCE OF
S T C W ENDORSEMENT CERTIFICATES:

1. Request Letter from Employer
2. Authenticated PRC or NTC License/Certificate (Original and 2 Xerox)
3. Employment Contract.
4. Old and New Seaman's Book (Original and 2 Xerox)
5. Health Certificate (to include findings on eyesight and color perception, learning and speech for radio officersonly) from MARINA-Recognized Hospital/Clinics.
6. For Graduates of Maritime Schools:

   A. Fire-Fighting Certificate (Original and 2 Xerox)
   B. Survival Craft Certificate (Original and 2 Xerox)

   For Non-Graduates of Maritime Schools:

   A. Fire-Fighting Certificate (Original and 2 Xerox)
   B. Survival Craft Certificate (Original and 2 Xerox)
   C. Personal Survival Technique Certificate (Original and 2 Xerox)
   D. First-Aid (Original and 2 Xerox)

7. For Deck Officers Only:

   A. Radar Observer's Course Certificate (Original and 2 Xerox)
   B. Radar Simulator's Course Certificate (Original and 2 Xerox)
   C. Restricted Radio and Telephony Certificate (Original and 2 Xerox)

8. Officers Boarding Tanker Vessels:

   A. General Tanker Safety Certificate (Original and 2 Xerox)
   B. Specialized Tanker Certificate (to be compatible with vessel intending to board)
      1. Oil Tanker Safety Certificate (Orig. & 2 Xerox)
      2. LPG/LNG Tanker Safety Certificate (Orig.& 2 Xerox)
      3. Chemical Tanker Safety Certificate (Orig.& 2 Xerox)

MARITIME INDUSTRY AUTHORITY
PPL BUILDING, U. N. AVENUE
METRO MANILA, PHILIPPINES 2801

Legend: ROC = Radar Observers Course
RSC = Radar Simulators Course
RRTC = Restricted Radio Telephony Certificate (VHF/MF)

Checklist of Required Training Certificates — For Tankermen (including OBO)

GRADE/RANK	4 Basic Safety Courses (SOLAS)	R O C	R S C	R R T C	(Familiarization) Gen. Tanker Cert.		Depending on Type: Oil/Chemical/LPG Tanker Safety Cert.
Master Mariner	X	X	X	X**	ARPA	X	X
Chief Mate (1/O)	X	X	X	X**		X	X
2nd Mate (2/O)	X	X	X	X		X	X
3rd Mate (3/O)	X	X	X	X		X	X
A. B.	X					X	X
O. S.*	X					X	(X)
GMC/DECK*	X					X	(X)
G. P.*	X					X	(X)
Purser/Bosun/Stewards	X					X	
Chief Marine Engineer	X					X	X
2nd Engineer (1 A/E)	X					X	X
3rd Marine Engineer(2 A/E)	X					X	X
4th Marine Engineer(3 A/E)	X					X	X
Pumpman	X					X	X
Motorman*	X					X	(X)
Electrician*	X					X	(X)
GMC-Engine*	X					X	(X)
G. P*	X					X	(X)
Radio Officer	X					X	

* If assigned or involved in cargo handling operations, they must hold the appropriate Oil/Chemic LPG Tanker Safety Certificate.
** For overseas service : General Radio Telephony Certificate (VHF/MF/HF) shall be required

REPUBLIC OF THE PHILIPPINES
MARITIME INDUSTRY AUTHORITY

SN _____

RATINGS' CERTIFICATE

_____ WATCHKEEPER

This is to certify that:

Mr: ..... (Name in full)

Citizen of ..... (Country)

Born on ..... (Date of birth)

At ..... (Place of birth)

complies with the provisions of Regulation _____ of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW-78) and is approved to specific duties and responsibilities in connection with ..... watchkeeping.

Date of Issue .....

_____
Administrator

Attested by:

_____

Signature of the holder of the Certificate .....