

## 付 属 資 料

- 1 .協議議事録( ミニッツ )
- 2 .オリジナルPDM
- 3 .改訂版 PDM
- 4 .実績表
- 5 .課題と対応策表
- 6 .オリジナルPDM と改訂版 PDM の比較表
- 7 .日本側供与機材一覧



1. 協議議事録 (ミニッツ)

**MINUTES OF MEETINGS  
BETWEEN  
THE JAPANESE MID-TERM EVALUATION TEAM  
AND  
THE AUTHORITIES CONCERNED OF  
THE GOVERNMENT OF THE REPUBLIC OF TURKEY  
ON  
THE JAPANESE TECHNICAL COOPERATION  
FOR  
THE PROJECT ON IMPROVEMENT OF MARITIME EDUCATION**

The Japanese Mid -term Evaluation Team (hereinafter referred to as “the Japanese team”) organized by Japan International Cooperation Agency (hereinafter referred to as “JICA”) and headed by Mr. Yutaka NAITO, visited the Republic of Turkey from October 8 to 24,2002.

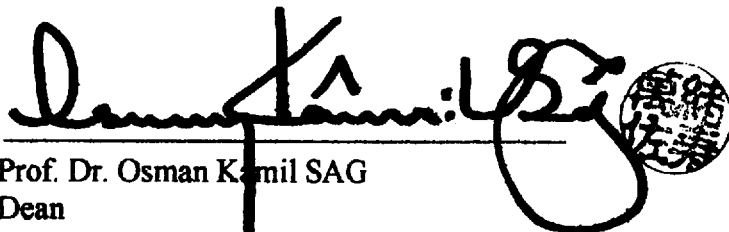
During its stay in the Republic of Turkey, the Japanese team had a series of discussions with the Turkish authorities concerned and jointly evaluated the present achievements of “The Project on Improvement of Maritime Education in the Republic of Turkey” (hereinafter referred to as “the Project”).

As a result of the discussions, the Japanese team and the Turkish authorities concerned agreed to report to their respective governments the matters referred to in the document attached herewith.

Istanbul, 22 October 2002



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Leader  
Mid-term Evaluation Team  
Japan International Cooperation Agency  
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## THE ATTACHED DOCUMENT

### I. ATTENDANTS LIST

(The Japanese Side)

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Head of Engine Department

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### II. INTRODUCTION

#### 2.1 Preface

The Project was initiated in April 2000 and will be completed by March 2005. With the remaining project period of approximate two years and half, the Japanese team visited the Republic of Turkey from 8 to 24 October 2002 for the purpose of evaluating the achievements of the Project at the mid-term period. The evaluation has been undertaken jointly by the Japanese and Turkish staff concerned with the Project and the Japanese team.

#### 2.2 Objectives of Evaluation

Objectives of the mid-term evaluation are as follows.

- 1) To evaluate project's record of performance and outcome reached by the Project since its



establishment to date.

- 2) To review the project design through a joint workshop and meeting with experts and their Turkish counterparts.
- 3) To revise the project design matrix (PDM) in accordance with its necessity.
- 4) To exchange minutes of meetings on the results of the mid-term evaluation.

### **2.3 Methodology of Evaluation**

The Research was conducted in accordance with the Project Cycle Management (PCM) with the following steps.

- 1) The Project Design Matrix for evaluation (hereinafter referred to as 'PDME'; attached in Annex 1) was agreed upon by both the Japanese team and the Project side on the basis of the results of the evaluation.
- 2) Achievements of the Project were investigated by collecting data and other relevant information.
- 3) Analysis was made inline with the following five (5) evaluation criteria.

#### **Relevance**

Relevance of the project plan is reviewed by the validity of the Project purpose and the overall goal, in connection with the development policy of the Turkish Government and the Japanese government aid policy. The Project is also assessed by the needs of the beneficiaries and also by the logicity of the Project plan.

#### **Effectiveness**

Effectiveness of the Project is assessed by the achievement of each output and projection on achievement of project purpose at the end of project period.

#### **Efficiency**

Efficiency of the Project implementation is analyzed with the emphasis on the relationships between outputs and inputs in terms of timing, quality and quantity of input.

#### **Impact**

Impact of the Project is assessed by either positive or negative influence caused by the Project.

#### **Sustainability**

Sustainability of the Project is assessed in organizational, functional, and technical aspects by examining the extent to which the achievements of the Project are sustained or expanded after the project has been completed.

## **III. RESULTS OF EVALUATION**

### **3.1 Achievement of the Project**

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Achievements of the Project based on the PDME are shown in Annex 2.

### **3.2 Results of the Evaluation**

Detailed results of the evaluation are attached in Annex 3. Summary of the results is as follows.

#### **3.2.1 Relevance**

Transportation sector is emphasized in the Eighth Five-year Development Plan 2001-2005 in Republic of Turkey. In addition to this, the demand of maritime education is very high not only inside Turkey but also in the international maritime community. Also, Japan has a great deal of experience in human resource training in the field of maritime education. In these respects, the relevance of this Project is judged high.

#### **3.2.2 Effectiveness**

In general, effectiveness of the Project is achieved as planned. However, a number of activities are behind from the original plan due to the reasons such as economic crisis in Turkey, technical problems of the Ship Handling Simulator (SHS) and so on.

The most significant achievement has been observed in the activities relating to Maritime Security Training Center (MSTC), since the number of advanced training courses are promoted and demand from seafarers are very met with these training programs. In addition to this, MSTC activities are contributing towards the income generation of ITUMF.

#### **3.2.3 Efficiency**

In general, efficiency of the Project is secured. But some negative factors are found in the process of the implementation of the Project. First of all, due to their over duty of counterparts, they have not been able to participate to the Project activities fully. Secondly, the construction of simulator building was delayed by economic crisis in Turkey. Thirdly, several technical problems on SHS were pointed out by the Turkish side. Concerning the factors relating to the counterparts and SHS, counter actions should be taken at the early stage in the second half of the Project.

#### **3.2.4 Impact**

In local, national and international levels, positive impacts listed below have been appeared on the Project.

Programs of deck and engine department were upgraded / modified.

Turkish maritime education legislation was produced on April 2002 and three of ITUMF staff were chosen as the members of preparatory activities.

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New simulator building was completed in June 2002.

Numbers of theses and presentations were made by ITUMF staff with the cooperation of Japanese experts.

Young staff of ITUMF have begun to cultivate their sense as researchers in the research field. International seminar on maritime English was held at ITUMF and foreign participants and ITUMF students had the opportunities to exchange information with each other.

Existing MSTC courses were upgraded and new continuing study courses are accomplished.

### **3.2.5 Sustainability**

The key of the project sustainability is budgetary allocation especially on the maintenance of simulators.

Not only maintaining the hardware, renewing and improving the software are estimated very expensive. Income created by MSTC courses is expected to cover these expenses, however, it is pointed out that income of MSTC at this moment would not be enough to cover all these expenses.

Recruitment of the counterparts is also a key element of sustainability that should be taken care of by the Project from a standpoint of technical transfer.

In the process of the Project, activities regarding with the enhancement of research capacity of the faculty members will establish a sustainable developing system towards a higher level maritime university. It will also achieve a linked relationship that the sense as a researcher produces good results to keep constant development on the education of both vocational and academic field.

### **3.2.6 Conclusion**

In general, the Project is achieving steady progress towards its purpose, though the performance of each activity at this point is not same. Especially the output with activity that needs the use of SHS is relatively behind the schedule.

For the enhancement of the efficiency, the following should be improved, namely: i) specification of the SHS and ii) number of counterparts.

From the point of view of the sustainability, running expenses represented by the maintenance fee of simulators is a problem awaiting the solution. Establishment of the system to secure the maintenance fee inside ITUMF is effective for the sustainability of the Project.

## **IV. REVIEW AND REVISION OF PDM**

The original PDM in the Record of Discussion (R/D) was reviewed and modified during the

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workshop in accordance with the actual progress in the process of the Project. The revised PDM is attached in Annex 4. The points revised are summarized as follows.

- 1) Project purpose was revised to be practical as the result of reflection of the present situation of ITUMF and MSTC.
- 2) Verifiable indicators were revised to be more concrete to ensure the actual achievements of the Project since STCW 95 is no longer the actual target level of education for ITUMF.
- 3) Project activities were revised to emphasize the practical education by enhancement of laboratory.

## **V. RECOMMENDATIONS**

Based on the findings through the field survey and various discussions with the project staff and the Japanese experts, the Japanese team recommends the following to complete the Project successfully at the end of project period.

### **5.1 Ship Handling Simulator (SHS)**

The problems of function on SHS listed in Annex 5 were pointed out by the Turkish side. The Japanese team has taken this matter sincerely and come up with a policy shown in Annex 6. Further information concerning Annex-6, such as duration for the realization or result of the reviewed items by the Japanese side, will be informed to the Project latest by 15<sup>th</sup> November 2002.

In addition to this, the Japanese team recommends the Project to place the further emphasis on the field of SHS in remaining period since the team recognized the importance of the technical transfer in this field.

### **5.2 Reinforcement of laboratory facility**

Both the Japanese team and Turkish counterparts recognized that reinforcement of the laboratory facility is necessary. Certain action should be taken to solve this situation by the Project.

### **5.3 Recruitment of Turkish counterparts**

The Japanese team requested Turkish side to recruit counterparts in the earliest stage of the second half of the project in order that smooth technical transfer can be realized.

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## **VI. OTHERS**

### **6.1 The responsibility and authority of the Project Manager**

Major decision on the Project such as general direction of the project or plan of the next year's annual program should be made as results of the harmonious consultations between Project Manager and the Japanese chief advisor. As a matter of course, they owe the responsibility on what they have decided. So mutual communication and prudent decision making are strongly required.

### **6.2 Future budget of the project**

Each year the Project applies next fiscal year's budget to JICA headquarters based on the annual program planned under the consultation within the Project Manager and the Japanese chief advisor. Assessment on the applied budget is made by JICA headquarters with consultation of Japanese Ministry of Foreign Affairs.

### **6.3 Presentation made by the Project Manager**

During the Japanese team's stay in Turkey, the Project Manager made a presentation on the performance of the Project. The document distributed at the presentation is attached in Annex 7.

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## ANNEX I Project Design Matrix

Project Name: The Project on Improvement of Maritime Education

Project Site: Maritime Faculty, Istanbul Technical University (ITUMF) /Maritime Safety Training Center (MSTC)

Narrative Summary	Objectively Verifiable Indicator	Means of Verification	Important Assumption
<p>Overall Goal</p> <p>Safe operation of Turkish merchant vessels in world-wide basis is enhanced.</p>	<p>* Accident cases Turkish seafarers.</p> <p>* Number of cases of PSC(Port State Control) of Turkish vessels.</p>	<p>* Record of accidents caused by Turkish seafarers.</p> <p>* MOU Annual documents.</p>	
<p>Project Purpose</p> <p>ITUMF and MSTC produce educated or refreshed seafarers who meet international standards.</p>	<p>* Number of curriculum and lectures in accordance with STCW95 in ITUMF.</p> <p>* Number of curriculum and lectures in accordance with STCW95 in MSTC.</p> <p>* Success rate of maritime oceangoing competency examination in accordance with STCW95.</p>	<p>* ITUMF annual report submitted to Higher Education Council.</p> <p>* MSTC annual report.</p> <p>* Pass list of maritime oceangoing competency examination.</p>	<p>Demand for seafarers sustains.</p> <p>Associated co-operation of Turkish merchant maritime sector is encouraged.</p>
<p>Outputs</p>			
<p>1. Education and training in Deck Department of ITUMF is improved in accordance with international standards.</p>	<p>1,2-a Syllabus in accordance with STCW95.</p> <p>1,2-b Curriculum in accordance with STCW95.</p>	<p>1,2-a Curriculum bulletin of ITUMF.</p> <p>1,2-b Record of utilization of equipment.</p>	<p>Turkish merchant maritime sector is continuously attractive for students.</p>
<p>2. Education and training in Engine Department of ITUMF is improved in accordance with international standards.</p>	<p>1,2-c Utilization rate of equipment introduced by the Project.</p> <p>1,2-d Assignment of instructors with competency satisfying STCW95.</p>	<p>1,2-c Annual report of ITUMF to Higher Education Council.</p>	
<p>3. Research capacity concerning maritime safety management in ITUMF is enhanced.</p>	<p>3-a Number of research activities and reports concerning maritime safety management.</p> <p>3-b Utilization rate of introduced equipment for research use.</p> <p>3-c Number of presented research works inside and outside of Turkey.</p> <p>3-d Number of research reports carried on the internationally established journals.</p> <p>3-e Number of international meetings held by ITUMF.</p>	<p>3-a Annual report of ITUMF to Higher Education Council.</p> <p>3-b Published research reports.</p> <p>3-c Academic journals, bulletin and journals published by ITUMF.</p> <p>3-d Internationally established journals.</p> <p>3-e Proceedings of international meetings.</p>	<p>The content of STCW95 does not change fundamentally.</p>
<p>4. Re-education and refreshment training for existing seafarers in MSTC is improved and expanded in accordance with international standards.</p>	<p>4-a Number of re-education and refreshment training courses in MSTC.</p> <p>4-b Number of participants to re-education and refreshment training courses in MSTC.</p>	<p>4-a List of re-education and refreshment training courses.</p> <p>4-b List of participants to re-education and refreshment training</p>	

# ANNEX I Project Design Matrix

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4-c Success rate of participants to re-education and refreshment training courses in MSTC in maritime competency examination.

courses.  
4-c List of maritime competency examination.

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Activities	Inputs		
1 - 1 Review and improve the curriculum of Deck department. ① Analyze the existing curriculum and teaching method. ② Improve the curriculum and teaching method in accordance with STCW95. ③ Utilize audio-visual teaching equipment.	Inputs by Turkish side * Assignment of 2~3 Counterparts to each long-term experts. * Land, buildings and facilities of ITUMF and MSTC. * Expenses for construction of building for installing the		Administration of ITUMF and MSTC is secured.  ITUMF is continuously attractive for the high school graduates.
1 - 2 Review and improve on-board training curriculum. ① Analyze on-board training curriculum. ② Establish on-board training curriculum in accordance with STCW95. ③ Introduce the TRB(Training Record Book) and other training materials for on-board training	Equipment provided by Japanese side. * Salary of the staff of ITUMF and MSTC. * Operational and running cost. * Assignment of computer technician. * Improvement and up-dating of simulators.		Counterpart personnel who have received technology transfer remain in the Project.
1 - 3 Review and improve the evaluation method of students' skills after education and training in Deck department. ① Analyze the existing evaluation method. ② Improve the evaluation method in accordance with STCW95.			Equipment is supplied and arrived as planned.
1 - 4 Introduce curriculum utilizing ship-handling simulator. ① Set up simulator and other peripheral equipment. ② Improve the existing curriculum to fit in the education and training utilizing simulator. ③ Introduce the new curriculum utilizing simulator ④ Establish the criteria of evaluation for the education and training utilizing simulator. ⑤ Train instructors for the education and training utilizing simulator. ⑥ Train staff for management, operation and maintenance of simulator. ⑦ Train staff for development and up-date of software of simulator. ⑧ Start the education and training utilizing simulator.	Inputs by Japanese side * Dispatch of Long-term experts - Chief Advisor - Maritime Education (Navigation) - Maritime Education (Engine) - Training Management - Maritime Research on Safety Management - Coordinator * Dispatch of Short-term experts - Navigation - Engine - Maritime Research on Safety Management - Simulation System * Provision of equipment - Ship-handling simulator, engine room simulator and peripheral equipment. - Audio-visual equipment, models, references. * Receiving of Turkish counterparts for training in Japan.		Cooperation from private maritime transportation companies regarding on-board training can be obtained continuously.
2 - 1 Review and improve the curriculum of Engine department. ① Analyze the existing curriculum and teaching method. ② Improve the curriculum and teaching method in accordance with STCW95. ③ Utilize the audio-visual teaching equipment.			
2 - 2 Review and improve the evaluation method of students' skills after education and training in Engine department. ① Analyze the existing evaluation method. ② Improve the evaluation method in accordance with STCW95.			

## ANNEX I Project Design Matrix

<p>500</p> <p>wh</p>	<p>2 – 3 Introduce curriculum utilizing engine room simulator.</p> <p>① Set up simulator and other peripheral equipment.</p> <p>② Improve the existing curriculum to fit in the education and training utilizing simulator.</p> <p>③ Introduce the new curriculum utilizing simulator.</p> <p>④ Establish the criteria of evaluation for the education and training utilizing simulator.</p> <p>⑤ Train instructors for the education and training utilizing simulator.</p> <p>⑥ Train staff for management, operation and maintenance of simulator.</p> <p>⑦ Train staff for development and up-date of software of simulator.</p> <p>⑧ Start the education and training utilizing simulator.</p>
	<p>3 – 1 Enhance research activities concerning maritime safety technology.</p> <p>① Study and analyze the hazardous areas of sea traffic in the water near Turkey.</p> <p>② Understand the evaluation skill for navigational safety by utilizing simulator.</p> <p>③ Understand diversified applied utilization of ship-handling simulator.</p>
	<p>3 – 2 Enhance research activities concerning human error.</p> <p>① Assume the occurrence of human error in the watch-keeping operation in a bridge, analyze its mechanism and understand the countermeasures.</p> <p>② Assume the occurrence of human error in the watch-keeping operation in a engine room, analyze its mechanism and understand the countermeasures.</p>
	<p>3 – 3 Enhance research activities concerning environmental effect on maritime activities.</p> <p>① Understand the situation of sea pollution caused by vessels and the countermeasures.</p> <p>② Assume the occurrence of sea pollution in the water near Turkey and understand the countermeasures.</p>
	<p>4 – 1 Review and improve the curriculum of re-education and refreshment training for existing seafarers in MSTC.</p> <p>① Analyze the existing curriculum and teaching method.</p> <p>② Improve the curriculum and teaching method in accordance with STCW95 and add the necessary re-education and refreshment training.</p> <p>③ Utilize the audio-visual teaching equipment.</p>
	<p>4 – 2 Introduce the curriculum utilizing ship handling and engine room simulator in MSTC.</p> <p>① Improve the existing curriculum to fit in the education and training utilizing simulator.</p> <p>② Introduce the new curriculum utilizing simulator.</p> <p>③ Establish the criteria of evaluation for the education and training utilizing simulator.</p> <p>④ Train instructors for the education and training utilizing simulator.</p> <p>⑤ Start the education and training utilizing simulator.</p>

### ANNEX I Project Design Matrix

4 - 3 Review and improve the curriculum of re-education and refreshment training for the graduates of ITUMF. ① Select and set up education and training concerning the advanced ship-handling skills (Ship-handling of special vessels such as Tanker, Chemical Tanker, Liquid Gas Carrier, Approach ship-handling of big vessels to the berth, Ship-handling for leaving and approaching to berth)
4 - 4 Improve the teaching materials and references.

Pre-condition  Turkish government is willing to conduct the Project and have no objection.
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## Annex 2

## Table of Achievement

Narrative summary	Objectively Verifiable indicators	Achievements	Important assumptions	Reality checks on important assumptions
<p>Overall goal</p> <p>Safe operation of Turkish merchant vessels in world-wide basis is enhanced.</p>	<ul style="list-style-type: none"> <li>- Accident cases Turkish seafarers.</li> <li>- Number of cases of PSC (Port State Control) of Turkish vessels.</li> </ul>	<p>It is early to monitor the effectiveness of achievement for Turkish fields</p>		
<p>Project Purpose</p> <p>ITUMF and MSTC produce educated or refreshed seafarers who meet international standards</p>	<ul style="list-style-type: none"> <li>- Number of curriculum and lectures in accordance with STCW95 in ITUMF.</li> <li>- Number of curriculum and lectures in accordance with STCW95 in MSTC.</li> <li>- Success rate of maritime oceangoing competency</li> </ul>	<p>*Some research were carried out by research assistants &amp; Lecturers.</p> <p>*ITUMF is still on progress (graduates got the opportunity to be trained in E/R simulators)</p> <p>*ITUMF: students were benefited from the opportunities of partly MSTC advance courses.</p> <p>*ITUMF is still in progress to establish infrastructures &amp; properties.</p> <p>*MSTC: All related courses in accordance with STCW were established and we still are on implementation in an advanced manner.</p> <p>*MSTC: 13 different courses were established for the industry. 3340 trainers were graduated from the MSTC courses. New infrastructure &amp; properties were established such as fire-fighting etc.</p> <p>*MSTC: Fraudulent certificate that were obtained before were stopped &amp; the real courses are initiated.</p>	<p>Demand for seafarers sustains.</p> <p>Associated cooperation of Turkish merchant maritime sector is encouraged.</p>	

<p><b>Outputs</b></p> <p>1. Education and training in Deck Department of ITUMF is improved with international standards.</p> <p>2. Education and training in Engine Department of ITUMF is improved with international standard</p> <p>3. Research capacity concerning maritime safety management in ITUMF is enhanced.</p> <p>4. Re-education and refreshment training for existing seafarers in MSTC is improved and expanded in accordance with international standards.</p>	<p>1.2-a Syllabus in accordance with STCW95.                  1.2-b Curriculum in accordance with STCW95.                  1.2-c Utilization rate of equipment introduced by the Project.                  1.2-d Assignment of instructors with competency satisfying STCW95.</p> <p>3-a Number of research activities and reporting concerning maritime safety management.                  3-b Utilization rate of introduced equipment for research use.                  3-c Number of presented research works inside and outside of Turkey.                  3-d Number of research reports carried on the internationally established journals.                  3-e Number of international meetings held by ITUMF</p> <p>4-a Number of re-education and refreshment training courses in MSTC.                  4-b Number of participants to refresher and updating training courses in MSTC.                  4-c Success rate of participants to re-education and refreshment training courses in MSTC in maritime competency examination.</p>	<p>1. Not yet. In progress.                  1.2.c Not yet.                  1.2.d Nothing</p> <p>2. Not yet. In progress.</p> <p>3. b 50%                  3.C .7 inside                  27 outside</p> <p>4.a. 13 different courses                  4.b. 3340 trainees (by the end of September 2002)                  4.c. 96%</p>	<p>Turkish merchant maritime sector is continuously attractive for students.</p> <p>The content of STCW95 does not change fundamentally.</p> <p>Administration of ITUMF and MSTC is secured.</p> <p>ITMF is continuously attractive for the high school graduates.</p> <p>Counterpart personnel who have received technology transfer remain in the Project.</p> <p>Equipment is supplied and arrived as planned.</p> <p>Cooperation from private maritime transportation companies regarding on-board training can be obtained continuously.</p> <p>Precondition</p> <p>Turkish government is willing to conduct the Project and have no objection.</p>	<p>Improvement Techniques &amp; Evaluation criteria are not defined in detail in STCW95, therefore further assessment is needed at university level.</p> <p>Demands for seafarers sustains? Nationally decrease but internationally increased.</p>
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Activities	Achievements	Inputs	Actual inputs
<p>1-1 Review and improve the curriculum of Deck department</p> <p>① Analyze the existing curriculum and teaching method.</p> <p>② Improve the curriculum and teaching method in accordance with STCW95.</p> <p>③ Utilize audio-visual teaching equipment.</p> <p>1-2 Review and improve on-board training curriculum.</p> <p>① Analyze on-board training curriculum.</p> <p>② Establish on-board training curriculum in accordance with STCW95.</p> <p>③ Introduce the TRB(Training Record Book) and other training materials for on-board training.</p> <p>1-3 Review and improve the evaluation method of students' skills after education and training Deck department.</p> <p>① Analyze the existing evaluation method.</p> <p>② Improve the evaluation method in accordance with STCW95.</p> <p>1-4 Introduce curriculum utilizing ship-handling simulator.</p> <p>① Set up simulator and other peripheral equipment.</p> <p>② Improve the existing curriculum to fit in the education and training utilizing simulator.</p> <p>③ Introduce the new curriculum utilizing simulator.</p> <p>④ Establish the criteria of evaluation for the education and training utilizing simulator.</p> <p>⑤ Train instructors for the education and training utilizing simulator.</p> <p>⑥ Train staff for management, operation and maintenance of simulator.</p> <p>⑦ Train staff for development and up-date of software of simulator.</p> <p>⑧ Start the education and training utilizing simulator.</p> <p>2-1 Review and improve the curriculum of Engine department</p> <p>① Analyze the existing curriculum and teaching method</p> <p>② Improve the curriculum and teaching method in accordance with STCW95.</p> <p>③ Utilize the audio-visual teaching equipment.</p> <p>2-2 Review and improve the evaluation method of students' skills after education and training in Engine department.</p> <p>① Analyze the existing evaluation method.</p> <p>② Improve the evaluation method in accordance with STCW95.</p> <p>2-3 Introduce curriculum utilizing engine room studies.</p> <p>① Set up simulator and other peripheral equipment.</p> <p>② Improve the existing curriculum to fit in the education and training utilizing simulator.</p> <p>③ Introduce the new curriculum utilizing simulator.</p> <p>④ Establish the criteria of evaluation for the education and training utilizing simulator.</p> <p>⑤ Train instructors for the education and training utilizing simulator.</p> <p>⑥ Train staff for management, operation and maintenance of simulator.</p> <p>⑦ Train staff for development and up-date of software of simulator.</p> <p>⑧ Staff the education and training utilizing simulator.</p>	<p>1.1.1 No (Due to recent updating National Legislation)</p> <p>1.1.2 No (Due to recent updating National Legislation)</p> <p>1.1.3 Yes (but not enough)</p> <p>1.2 New third year cadet record book is prepared. But improvement is needed.</p> <p>1.3 No activities.</p> <p>1.4.1 Setting up the simulator is completed. It shall be improved.</p> <p>1.4.2 Already prepared.</p> <p>1.4.3 Already prepared and waiting for the official changes.</p> <p>1.4.4 Already prepared and used.</p> <p>1.4.5 Already done and there is planned future training.</p> <p>1.4.6 Only for operation.</p> <p>1.4.7 1 counterpart partly trained.</p> <p>1.4.8 Not yet</p> <p>2.1.1 Analyze the existing curriculum and teaching method was completed.</p> <p>2.1.2 He is still in progress but not completed satisfactory. (improvement of the curriculum is in progress. However there are problems with the implementation of the teaching methods such as maintenance, diesel engine lab, automatic control lab and so on)</p> <p>2.1.3 Not satisfactory due to the resources and need of staff such as projector, computers, etc.</p> <p>2.2.1 Comments: The working "skills" should be replaced by "proficiency". Currently, ITUFM does not have enough infrastructures for evaluation, such as labs and workshops.</p> <p>2.2-2 No activities.</p> <p>2.3.1 Completed. However shortage of workstations is creating a big difficulty in fully utilization of ERS in Engine Department.</p> <p>2.3.2 Partly achieved</p> <p>2.3.3 Still in progress. (22.5%)</p> <p>2.3.4 In progress</p> <p>2.3.5 Completed satisfactory.</p>	<p>Turkish side</p> <p>*Assignment of 2~3 Counterparts to each long-term experts.</p> <p>*Land, buildings and facilities of ITUMF and MSTC.</p> <p>*Expenses for construction of building for installing the Equipment provided by Japanese side.</p> <p>*Salary of the staff of ITUMF and MSTC.</p> <p>*Operational and running cost.</p> <p>*Assignment of computer technician.</p> <p>*Improvement and updating of simulators.</p> <p>Japanese side</p> <p>*Dispatch of long-term experts</p> <p>-Chief advisor</p> <p>-Maritime Education (Navigation)</p> <p>-Maritime Education (Engine)</p> <p>-Training Management</p> <p>-Maritime Research of Safety Management</p> <p>-Coordinator</p> <p>*Dispatch of Short-term experts</p> <p>-Navigation</p> <p>-Engine</p> <p>-Maritime Research on Safety Management</p> <p>-Simulation System</p> <p>*Provision of equipment</p> <p>-Ship-handling simulator, engine room simulator and peripheral equipment.</p> <p>-Audio-visual equipment, models, references.</p>	<p>Turkish side</p> <p>*1.2Million USD from State Planning Organization of Turkev (mainly for simulator building)</p> <p>MST building</p> <p>Japanese side</p> <p>*Ship handling simulator</p> <p>*Engine room simulator</p> <p>*UPS for engine simulator</p> <p>*Liquid cargo handling simulator</p> <p>*Software for Fluid analysis</p> <p>*Additional equipment of Engine room Simulator</p> <p>*OHP for AV based education</p> <p>*Lap-top computer for AV based education</p> <p>*Projector for AV based Education</p> <p>*Computer for Fluid Analysis</p> <p>*Equipment to measure Eyeball Movement</p> <p>*5 long term experts.</p> <p>*10 short term experts.</p> <p>-SHS 0.4M/M</p> <p>-ERS 0.4M/M</p> <p>-Equipment Planning 0.4M/M</p> <p>-Research for safety management E.D</p>



Annex 2

<p>3-1 Enhance research activities concerning maritime safety technology.                  ① Study and analyze the hazardous areas of sea traffic in the water near Turkey.                  ② Understand the evaluation skill for navigational safety by utilizing simulator.                  ③ Understand diversified applied utilization of ship-handling simulator.</p> <p>3-2 Enhance research activities concerning human error.                  ① Assume the occurrence of human error in the watch-keeping operation in a bridge, analyze its mechanism and understand the countermeasures.                  ② Assume the occurrence of human error in the watch-keeping operation in a engine room, analyze its mechanism and understand the countermeasures.</p> <p>3-3 Enhance research activities concerning environmental effect on maritime activities.                  ① Understand the situation of sea pollution caused by vessels and the countermeasures.                  ② Assume the occurrence of sea pollution in the water near Turkey and understand the countermeasures.</p> <p>4-1 Review and improve the curriculum of re-education and refreshment training for existing seafarers in MSTC.                  ① Analyze the existing curriculum and teaching method.                  ② Introduce the new curriculum utilizing simulator.                  ③ Establish the criteria of evaluation for the education and training utilizing simulator.                  ④ Train instructors for the education and training utilizing simulator.                  ⑤ Start the education and training utilizing simulator.</p> <p>4-2 Introduce the curriculum utilizing ship handling and engine room simulator in MSTC.                  ① Improve the existing curriculum to fit in the education and training utilizing simulator.                  ② Introduce the new curriculum utilizing simulator.                  ③ Establish the criteria of evaluation for the education and training utilizing simulator.                  ④ Train instructors for the education and training utilizing simulator                  ⑤ Start the education and training utilizing simulator.</p> <p>4-3 Review and improve the curriculum of re-education and refreshment training for the graduates of ITUMF.                  ① Select and set up education and training concerning the advanced ship-handling skills.                  (Ship-handling of special vessels such as Tanker, Chemical Tanker, Liquid Gas Carrier, Approach ship-handling of big vessels to the berth, Ship-handling for leaving and approach to berth).</p> <p>4-4 Improve the teaching materials and references.</p>	<p>2.3.6 Partly achieve.</p> <p>3.1.1 Done 50%                  3.1.2 Not yet                  3.1.3 Not yet</p> <p>3.2.1 Not done so far. Planned to carry out next semester (SHS was installed very recently)                  3.2.2 Initial stage. Partly achieved.                  3.3 Still continuous.                  - Early warning system equipment needs to improve.                  - Measurement and analysis still continuing.                  - 60% is completed and improvement of computer specification is needed (CFD)</p> <p>4.1.1 Completed                  4.1.2 Completed                  4.1.3 Yes (but not enough)</p> <p>4.2.1 Completed (BTM/BRM)                  4.2.2 Completed (BTM/BRM)                  4.2.3 Completed (BTM/BRM)                  4.2.4 Yes (partly completed) need more.                  4.2.5 Not yet</p> <p>4.3 Not yet                  4.3 The concept is changed not only "The graduate of ITUMF", but all Turkish seafarers and also foreign seafarers (for near future)</p> <p>4.4 Yes. 5% but not enough (need more)</p>	<p>*Receiving of Turkish counterparts for training in Japan.</p>	<p>0.5M/M                  -Maritime research 0.5M/M                  -SHS 1.0M/M                  -ERS 1.0M/M                  -Maritime safety management 1.0M/M                  -Human Error 1.0 M/M                  -ERS training 1.0M/M                  *Local Cost 44,900 million TL                  140,000 USD                  * 8 Counterparts have trained in Japan</p>
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## Evaluation Grid for The Project of Improvement of Maritime Education (as of October 22, 2002)

1.Relevance: Is the project purpose and overall goal consistent with Turkish development policies and Japan's aid plans for Turkey?

Evaluation Items	Confirmation Items	Source of Information	Results
<p>1-1 Relevance of overall goal and project purpose items to the national development policy and needs of Turkey.</p>	<p>1-1 Consistency with the Turkish national development policies. 1-1-2 Consistency with the industry needs 1-1-3 Consistency with the employment conditions</p>	<p>-The National Development Plan -Interview with Japanese Experts. -Questionnaire for counterparts. -Statistics of (projection of )the number of Turkish seafarers -Results of workshop -Presentation of counterparts</p>	<p>-The Eighth five-year National Development Plan (2001-2005) which focuses of transportation sector. -The needs for trained seafarers are increasing in National and international level. -3340 licensed seafarers have participated JICA-ITUMF project courses for the period of July 2001 through MSTC until October 1,2002. -The opportunities of on-board -training for cadets and of employment for graduates of ITUMF by International Ship Owners(Canada, USA, Japan, UK/Israel)</p>
<p>1-2 Relevance of project in terms of the maritime sector's development policies.</p>	<p>1-2-1 Consistency with maritime sector's development plans. 1-2-2 Consistency with the levels of education and training in maritime sector.</p>	<p>-National maritime education legislation. -Interview with counterparts.</p>	<p>-The National legislation corresponding to STCW95 was produced from Prime Ministry Undersecretaries of Maritime affaires April 2002. Three staff of ITUMF was members of preparatory committee.</p>
<p>1-3 Relevance in terms of Japanese cooperation policy to Turkey.</p>	<p>1-3-1 Consistency with Japan's aids policy and each country's project implementation plan. 1-3-2 Utilization of Japan's technology.</p>	<p>-Japan's ODA white paper -JICA's annual report -Interview with Japanese experts -Interview with students.</p>	<p>-According to Japan's ODA white paper, Turkey is one of the priority countries in the Middle and Near East of Japan. -South-south cooperation is positively supported by JICA, and actually foreign country seafarers participated Maritime English seminar in ITUMF. -Japan has high technical level and has accumulated much experience not only vocational training but also research activity in this field.</p>

## Annex 3

## 2. Effectiveness: To what extent can the accumulation of outputs be expected to achieve the project purpose?

Evaluation Items	Confirmation Items	Source of Information	Results
2-1 Achievements of outputs	Indicators for each result	-Table of Achievement -Presentation of Counterparts	Refer to Table of Achievement References from counterparts
2-2 Achievements of project purpose	Indicators for project goal	-Table of Achievement -Interview with counterparts -Questionnaire for counterparts.	Refer to Table of Achievement -Most counterparts mentioned that STCW95 is minimum requirements, which is no longer target education level of ITUMF. -MSTC achieved most part of project purpose.
2-3 Effect of 'important assumptions'	2-3-1 Indicators in relation with STCW95  2-3-2 Economic crisis	-PDME -Table of Achievement -Interview with counterparts	-Improvement Techniques & Evaluation criteria are not defined in detail in STCW95, further assessment is needed at university level. - Construction of the simulator building delayed more than one year by economical crisis in Turkey.
2-4 Inhibiting factors (constraints) other than 2-3	Factors other than 'important assumptions' that inhibited outputs from achieving the project purpose and the influence of factors.	-Table of Achievement -Interview with counterparts -Questionnaire for counterparts -Interview with Japanese experts	Due to ①Lack of communication between Japanese experts and Turkish counterparts, especially for planning and decision making. ② Limitation of budget allocation from the government. ③ Facilities and equipment of laboratories are not satisfied at the international level.
2-5 Contributing factors other than out puts	Factors that contributed to the achievement of project purpose other than outputs and the influence of factors	-Interview with counterparts -Interview with Japanese experts	E-mail is very helpful to exchange information for research activities with ex-short term experts.

Annex 3

3. Efficiency: Is it possible to achieve results commensurate with the resources allotted?

Are the quality, quantity, timing and timing of the allotted resources appropriate?

Evaluation Items	Confirmation Items	Source of Information	Results
<p>3-1 Relevance of quantity, quality and timing of input.</p>	<p>Japanese side                      ·Experts                      ·Counterpart training in Japan                      ·Equipment                      ·Project running expense                      Turkish side                      ·Counterparts                      ·Land, facilities and equipment                      ·Running budget</p>	<p>·Interview with counterparts                      ·Questionnaire for counterparts                      ·Interview with Japanese experts                      ·Record of experts dispatched                      ·Record of equipment procured by Japanese side.</p>	<p>· In general, efficiency of the project is secured.                      ·Results from the questioners to counterparts, more than 80% of counterparts satisfied with all items of Japanese experts.                      ·The selection of candidates' counterparts for training Japan is not fare for careered staff.                      · Main constraints found in process of implementation of the project according to the plan of operation.                      ①Due to the excessive duties in counterparts within ITUMF, they have not been able to fully participate to the project activities.                      ②Due to economical crisis in Turkey, the construction of simulator building had been delayed more than one year.                      ③Problems of SHS including their specification.</p>
<p>3-2 Utilization rate of input</p>	<p>Same as in the 3-1</p>	<p>·Interview with counterparts                      ·Questionnaire for counterparts                      ·Interview with Japanese experts                      ·Record of dispatched experts                      ·Record of equipment procured by Japanese side                      ·Presentation of counterparts</p>	<p>·Engine Room Simulator Work Station is inefficient in number. (Only 6 W/S for 35 students in one class.)                      ·SHS is not used for the training yet due to the delay of installment and some problems.                      ·Long term experts for SHS training at ITUMF is requested to JICA HQ.</p>
<p>3-3 Linkage with other Japanese cooperation</p>	<p>3-3-1 Other Japanese cooperation</p>	<p>·Interview with counterparts                      ·Presentation of counterparts</p>	<p>·Counterpart Ph.D. Scholarship by government of Japan in Kobe University of Mercantile Marine. (September 2000-)</p>

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Annex 3

4. Impact: Will the implementation of the Project have any positive or negative effects?

Evaluation Items	Confirmation Items	Source of Information	Results
4-1 State of overall goal achievement and outlook	4-1-1 Current state of indicators for overall goal	Refer to Table of Achievement	Table of Achievement
4-2 Reforms in awareness of ITUMF and MSTC staff	4-2-1 Change of attitude in work	<ul style="list-style-type: none"> <li>-Interview with counterparts</li> <li>-Questionnaire for counterparts</li> <li>-Interview with Japanese experts</li> </ul>	<ul style="list-style-type: none"> <li>-Although there has been overall improvement in counterparts' attitude compared with that at the start of the cooperation, it is still necessary to improve awareness in terms of punctuality and planning especially for research assistants.</li> </ul>
4-3 Local, National and International level of impact	4-3-1 Local 4-3-2 National level 4-3-3 International level	<ul style="list-style-type: none"> <li>-Interview with counterparts</li> <li>-Presentation of counterparts</li> <li>-Interview with Japanese experts</li> </ul>	<ul style="list-style-type: none"> <li>-Priority with Turkish Government State Planning Organization grants</li> <li>-Three staff of ITUMF participated in Preparatory activities for Turkish maritime education legislation.</li> <li>-International seminar on Maritime English was held at ITUMF exchange of information with ITUMF was released at all levels including students.</li> <li>-Research cooperation with ex-short-term experts through e-mail.</li> <li>-Establishment of International Association of Maritime Universities(IAMU)</li> <li>-Responsibility and High Official Status at IMO</li> <li>-Strong demand for bilateral cooperation from other International MET Higher Education Institutes(12 countries)</li> </ul>

Annex 3

5.Sustainability: Can project positive effects be sustained after completion?

Evaluation Items	Confirmation Items	Source of Information	Results
5-1 Organizational and systematic aspects	5-1-1 Operation and management and abilities of administrators 5-1-2 Continuity of assistance by the Turkish government.	-Interview with counterparts -Presentation of counterparts -Interview with Japanese experts	-The allocation and the number of counterparts are depending on the administration of ITU. -Additional research assistants are requested to the Rector of ITU. -Recruitment of counterparts presents issue of this project.
5-2 Financial aspects	5-2-1 Financial condition 5-2-2 Independent revenue	-Interview with counterparts -Questionnaire for counterparts -Interview with Japanese experts	-Budget allocation is depending on the national budget and ITU foundation. -From the revenue of MSTC, the new training building is constructed this year. -MSTC is expected to generate income for maintenance of facility and equipment especially for SHS. -However MSTC has not withdrawn the initial cost yet, therefore it is still facing financial difficulty. -Establishment of new financial system is under the negotiation at this time.
5-3 Technical aspects	5-3-1 Condition of the transferred technology on arrival. 5-3-2 Provision, renewal and maintenance system for facilities and equipment.	-Interview with counterparts -Presentation of counterparts -Interview with Japanese experts -Questionnaire for counterparts	-About 80% of counterparts answered that they have obtained useful knowledge and techniques through the Project. -There is a request of financial support for maintenance of equipment from counterparts, especially for simulators and computers.
5-4 Incentive for ITUMF and MSTC employees	5-4 Current working condition	-Interview with Japanese experts -Interview with counterparts	-MSTC is the additional business chance for staff of ITUMF and MSTC.

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Annex 4

Project Design matrix (Ver.2) As of October 22, 2002

Project Name: **The Project on Improvement of Maritime Education in Republic of Turkey**

Target group: Seafarers in Republic of Turkey

Project site: Maritime Faculty, Istanbul Technical University (ITUMF) / Maritime Safety Training Center (MSTC)

Period :April 1,2000 to March30, 2005

Narrative Summary	Objectively Verifiable Indicator	Means of Verification	Important Assumption
<p><b>Overall Goal</b> Safe operation of Turkish merchant vessels in world-wide basis is enhanced.</p>	<ul style="list-style-type: none"> <li>- Accident cases caused by Turkish seafarers.</li> <li>- Number of cases of PSC (Port State Control) due to Turkish seafarers' quality.</li> </ul>	<ul style="list-style-type: none"> <li>- Record of accidents caused by Turkish seafarers</li> <li>- MOU Annual documents</li> </ul>	
<p><b>Project Purpose</b> ITUMF establishes educational system to produce educated seafarers and MSTC produces refresher and up-dated seafarers that meet international standards.</p>	<ul style="list-style-type: none"> <li>- Number of curriculum and lectures in accordance with STCW95 in ITUMF.</li> <li>- Newly designed educational system including both vocational and academic program which exceeds STCW95.</li> <li>- SHS and ERS courses are established for licensed seafarers in MSTC.</li> <li>- Success rate of maritime oceangoing competency examination in accordance with STCW95.</li> </ul>	<ul style="list-style-type: none"> <li>- ITUMF annual reports submitted to Higher Education Council.</li> <li>- MSTC annual report.</li> <li>- Pass list of maritime oceangoing competency examination</li> </ul>	<p>Demand for seafarers sustains.</p> <p>Associated cooperation of Turkish merchant maritime sector is encouraged.</p>
<p><b>Outputs</b></p>			
<p>1. Education and training in Deck Department of ITUMF is improved in accordance with international standards.</p>	<p>1.2-a Curriculum and syllabus in accordance with STCW95 and advanced maritime technology.</p>	<p>1.2-a Curriculum bulletin of ITUMF</p>	<p>Turkish merchant maritime sector is continuously attractive for students.</p>
<p>2. Education and training in Engine Department of ITUMF is improved with international standards.</p>	<p>1.2-b Utilization rate of equipment introduced by the Project. 1.2-c Assignment of instructors with competency satisfying STCW95.</p>	<p>1.2-b - Record of utilization of equipment 1.2-c Annual report of ITUMF to Higher Education Council</p>	<p>The content of STCW95 does not change fundamentally.</p>
<p>3. Research capacity concerning maritime safety management in ITUMF is enhanced.</p>	<p>3-a Number of research activities and reporting concerning maritime safety management. 3-b Utilization rate of introduced equipment for research use. 3-c Number of presented research works inside and outside of Turkey. 3-d Number of research reports carried on the internationally established journals. 3-e Number of international meetings held by ITUMF.</p>	<p>3-a Annual report of ITUMF to Higher Education Council 3-b Published research reports. 3-c Academic journals, bulletin and journals published by ITUMF 3-d Internationally published journals 3-e Proceedings of international meetings</p>	
<p>4. Refresher and up-dated courses for existing seafarers in MSTC is improved and expanded in accordance with international standards.</p>	<p>4-a Number of refresher and up-dated courses in MSTC. 4-b Number of participants to refresher and up-dated training courses in MSTC. 4-c Success rate of participants to refresher and up-dated courses in MSTC. 4-d Number of SHS and ERS courses.</p>	<p>4-a,d List of refresher and up-dated courses. 4-b,d List of participants to refresher and up-dated courses. 4-c List of maritime competency examination</p>	

Annex 4

Narrative Summary	Inputs		Administration of ITUMF and MSTC is secured.
Activities	Inputs by Turkish side	Inputs by Japanese side	
1-1 Review and improve the curriculum of Deck department	*Assignment of 2~3 Counterparts to each long-term experts.	*Dispatch of long-term experts	ITUMF is continuously attractive for the high school graduates.
1-2 Review and improve on-board training curriculum.	*1.2Million US from State Planning Organization of Turkey (mainly for simulator building)	-Chief advisor	
1-3 Establishment and enhancement of laboratories in Deck department.	*MSTC building	-Maritime Education (Navigation)	Counterpart personnel who have received technology transfer remain in the Project.
1-4 Introduce curriculum utilizing ship-handling simulator.	*Salary of the staff of ITUMF and MSTC.	-Maritime Education (Engine)	
2-1 Review and improve the curriculum of Engine department	*Operational and running cost.	-Training Management	
2-2 Established and enhancement of laboratories in Engine department.	*Assignment of computer technician.	-Maritime Research of Safety Management	Equipment is supplied and arrived as planned.
2-3 Introduce curriculum utilizing engine room simulator.	*Improvement and up-dating of simulators.	-Coordinator	
3-1 Enhance research activities concerning maritime safety technology.		*Dispatch of Short-term experts as of October 20,2002	Cooperation from private maritime transportation companies regarding on-board training can be obtained continuously.
3-2 Enhance research activities concerning human factor		10 short-term experts have been dispatched	
3-3 Enhance research activities concerning environmental effect on maritime activities.		-SHS 0.4M/M	
4-1 Review and improve the curriculum of refresher and up-dated courses for existing seafarers in MSTC.		-ERS 0.4M/M	
4-2 Introduce the curriculum utilizing ship handling and engine room simulator in MSTC.		-Equipment Planning 0.4M/M	
4-3 Improve the teaching materials and references		-Research for safety management E.D 0.5M/M	
		-Maritime research 0.5M/M	
		-SHS 1.0M/M	
		-ERS 1.0M/M	
		-Maritime safety management 1.0M/M	
		-Human Error 1.0 M/M	
		-ERS training 1.0M/M	
		*Local Cost	Pre-condition
		44,900 million TL	Turkish government is willing to conduct the Project and have no objection.
		140,000 USD	
		*10 Counterparts have trained in Japan	
		*Provision of equipment	
		*Ship handling simulator	
		*Engine room simulator	
		*UPS for engine simulator	
		*Liquid cargo handling simulator	
		*Software for Fluid analysis	
		*Additional equipment of Engine room Simulator	
		*OHP for AV based education	
		*Lap-top computer for AV based education	
		*Projector for AV based Education	
		*Computer for Fluid Analysis	
		*Equipment to measure Eyeball Movement	
		(In Japan ¥356,160,000	
		In Turkey US\$304,687)	

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**TECHNICAL PROBLEMS OBSERVED ON SHIP HANDLING SIMULATOR  
POINTED OUT BY THE TURKISH SIDE**

**1. Items vitally essential towards improving the specifications of SHS to STCW95 and DNV standard to carry out MET at minimum acceptable international standard and joint research work at university level with KUMM as decided in the beginning of the Project in order of priority.**

- 1) Picture of coastlines on the radar screen is not satisfactorily realistic for navigation purposes. This problem is particularly important for the Strait of Istanbul and the Strait of Canakkale.
- 2) There are no yawing, heeling and pitching effects on the software that creates some unrealistic impression on the vision.
- 3) Target ships do not move smoothly. In other words there are some unrealistic impression when one is watching.
- 4) There is no rain effect either on vision or on radar picture.
- 5) JRC Radar works only on "S-Band Mode". There is no X band operating function. Having "X-Band operation Mode" enables the simulator to be used for "Search and rescue training" since SART device can be detected by X band radar. On the other hand, on a real ship, if there are two radar, one of them is usually used on S-Band while the other is used on X-Band since both mode have some advantages and disadvantages.
- 6) Since the technical maintenance will be very difficult (particularly the projectors) it would be very much helpful if any future maintenance (technical and financial) support provided. For future maintenance consideration, a change from CRT visual system to LC projection system may need to be realised. Turkish side realises that this future upgrade may not be applicable with the reasons such as dimension of the existing building and allocation of the projectors.
- 7) There is no "Auto-pilot" on either own ship. As a matter of fact this function is not a must however sometimes it is useful particularly it may be needed in the future for "research purposes".
- 8) There are no any ECDIS charts.
- 9) There is no facility in the operator's room for listening inside of the cubical other than intercom or other communication devices. It would be good to have such a facility for monitoring the trainees.
- 10) Inside of the cubical can not be monitored via CCTV cameras during night time



exercises.

- 11) In case of collision during exercise, there is no sound and visual effects. It would be better if there is similar effect in case of grounding.

**2. Items to make SHS more efficient in order of priority.**

- 12) Middle part of the frame on top of the bridge is seen on forward and both sides. Screens seem to be settled lower than where they should be.
- 13) Operation of the JRC Radar is not user friendly. It seems very sophisticated however "user friendliness" is important particular in short term "Bridge Team/Resources Management" courses.
- 14) Additional target ships can not be put when the exercise is continuing. Normally, exercise scenarios should be prepared in advance. However it would be good to have such function that enable the simulator operator to add some new targets when necessary.
- 15) Some scenarios are not matching with real charts regarding coastline and navigational aids (Example: there is bridge on chart but not in the simulator or racon similarly).
- 16) It would be good to have a facility of having different types/models of radar i.e. Furuno, Sperry etc. on the replica type radar.
- 17) There is no "Radar failure function". Instructor cannot generate any radar failures.
- 18) There is no response sound on the E/Telegraph when the engine is controlled from E/R. In other words, when the E/Telegraph moved from the E/R, there should be an audible alarm to warn those on the bridge.

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**CORRESPONDENCE TO BE TAKEN BY THE JAPANESE SIDE****1. Items to be dealt by the Japanese side**

- 1) to improve the software in order to create realistic impression such as yawing, heeling and pitching effects on the vision.
- 2) to provide "Auto-pilot" on own ship which is useful particularly for BTM and BRM training
- 3) to provide ENC for ECDIS
- 4) to provide CCTV cameras which enables monitoring during the night time exercises
- 5) to provide communication devices in the operator's room

**2. Items to be reviewed back in Japan**

- 6) JRC Radar works only on "S-Band Mode". There is no X band operating function. Having "X-Band operation Mode" enables the simulator to be used for "Search and rescue training" since SART device can be detected by X band radar. On the other hand, on a real ship, if there are two radar, one of them is usually used on S-Band while the other is used on X-Band since both mode have some advantages and disadvantages.
- 7) There is no rain effect either on vision or on radar picture.
- 8) Picture of coastlines on the radar screen is not satisfactorily realistic for navigation purposes. This problem is particularly important for the Strait of Istanbul and the Strait of Canakkale.
- 9) There is no response sound on the E/Telegraph when the engine is controlled from E/R. In other words, when the E/Telegraph moved from the E/R, there should be an audible alarm to warn those on the bridge.
- 10) Target ships do not move smoothly. In other words there are some unrealistic impression when one is watching.
- 11) In case of collision during exercise, there is no sound and visual effects. It would be better if there is similar effect in case of grounding.
- 12) Since the technical maintenance will be very difficult (particularly the projectors) it would be very much helpful if any future maintenance (technical and financial) support provided.

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### **3. Additional offer from the Japanese team**

- 13) to provide monitoring, recording and playback system of the sound
- 14) to provide monitoring, recording and playback system of the picture via CCTV
- 15) to provide monitoring, recording and playback system of PPI picture on the Radar
- 16) to provide the emergency alarm function
- 17) to introduce AIS
- 18) to provide backup system for main computer
- 19) to provide backup system for visual computer
- 20) to add scenarios of necessary training areas and two types of vessel (Suez Max and Afra Max)
- 21) to provide black curtain around chart
- 22) to provide functions in order to improve the realistic impression visual scene
- 23) to provide the real time environment stress assessment device for the purpose of research

### **4. Other item which ought to be equipped**

- 24) to realize the functional connection of SHS and Engine Room Simulator (ERS)

**"THE PROJECT ON IMPROVEMENT OF MARITIME  
EDUCATION"**

**MED - INTER-VEGETATION MISSION**

**Mr. Y. NAITO ( LEADER) - Prof. Dr. K. INOUE  
Mr. N. SATO - Ms. J. KAKINUMA - Mr. T. KOBAYASHI**

**PROF. DR. OSMAN KAMIL SAĞ  
JICA PROJECT MANAGER**



*October 8 - 25 2002*



**A. PRE - PROJECT INPUT**

- ◆ A.1. MR. K. SATO - PROF. M. ONISHI - MR. N. SAKAI  
Study Mission - Maritime Education and Training  
March 1995 - April 1995
- ◆ A.2. PROF. DR. OSMAN KAMIL SAĞ ( in Japan )  
Presentation at MOT - MOE - MFA  
January 1997
- ◆ A.3. CAPTAIN Y. OKADA  
Maritime Education  
March 1996 - February 1998
- ◆ A.4. MR. M. TAKAI - MR. N. OZEKI - MR. K. WATANABE  
MR. M. FURUTA - MR. K. IIDA - MR. K. NAKASIMA  
Preliminary Study Team  
April 1998 - (M/M SIGNED April 21, 1998)

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- ❖ A.5. MR. N. MURASE - MR. T. IKEDA  
Short Term Study Team (1)  
November 1998 - ( M/M SIGNED November 5, 1998 )
- ❖ A.6. PROF. T. KAWAHARA - PROF. M. ONISHI -  
MR. H. NOGUCHI  
Short Term Study Team (2)  
December 1998 - ( M/M SIGNED December 25, 1998 )
- ❖ A.7. MR. A. OUCHI - MR. T. FUJII - PROF. N. HOSOI -  
PROF. T. KAWAHARA - PROF. DR. K. INOUE -  
MR. N. MURASE  
Implementation Study Team  
December 1999 - Record of Discussions (R/D) and  
Minutes of Meeting (M/M) Signed between Japan and  
Turkey for the Project of Improvement of Maritime  
Education December 17, 1999



A.8. Several ITUMF Faculty Staff Members took  
Orientation of MET in JAPAN through JICA

Dr. Cengiz DEYİZ / Assist. Prof. Dr. Münip BAS

(6 months in 1994)

Assist. Prof. Dr. Özlem POLAT

(1.5 months in 1996)

Senior Lecturer Fügeh TÜRKAY

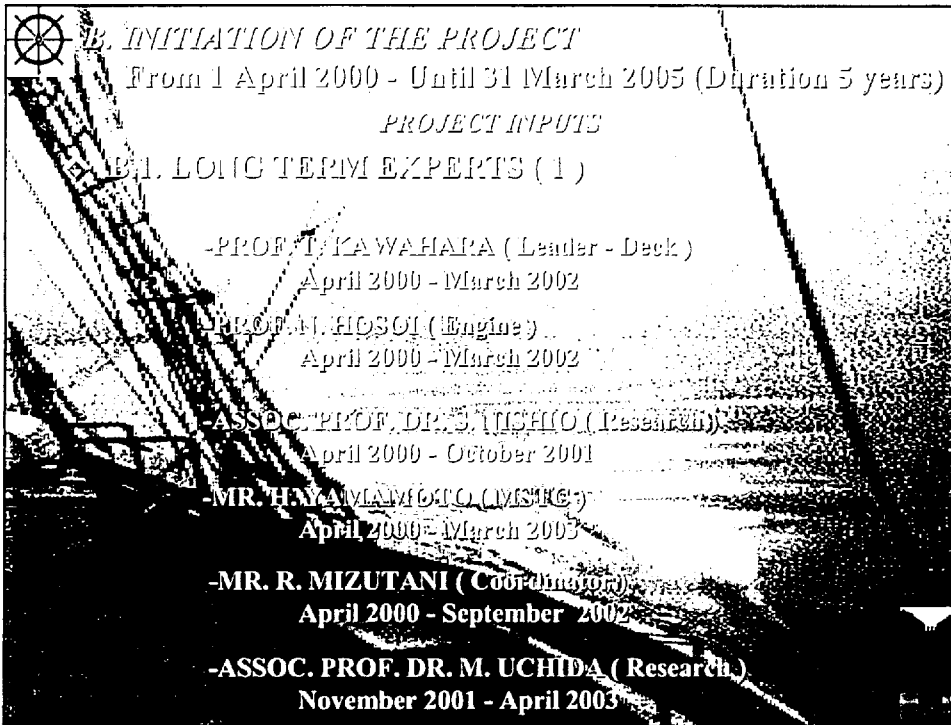
(1 month in 1997)

Research Assistant Ali KUSOĞLU

(6 months in 1999)

Research Assistant Tanzer SATIR

(3 months in 1999)

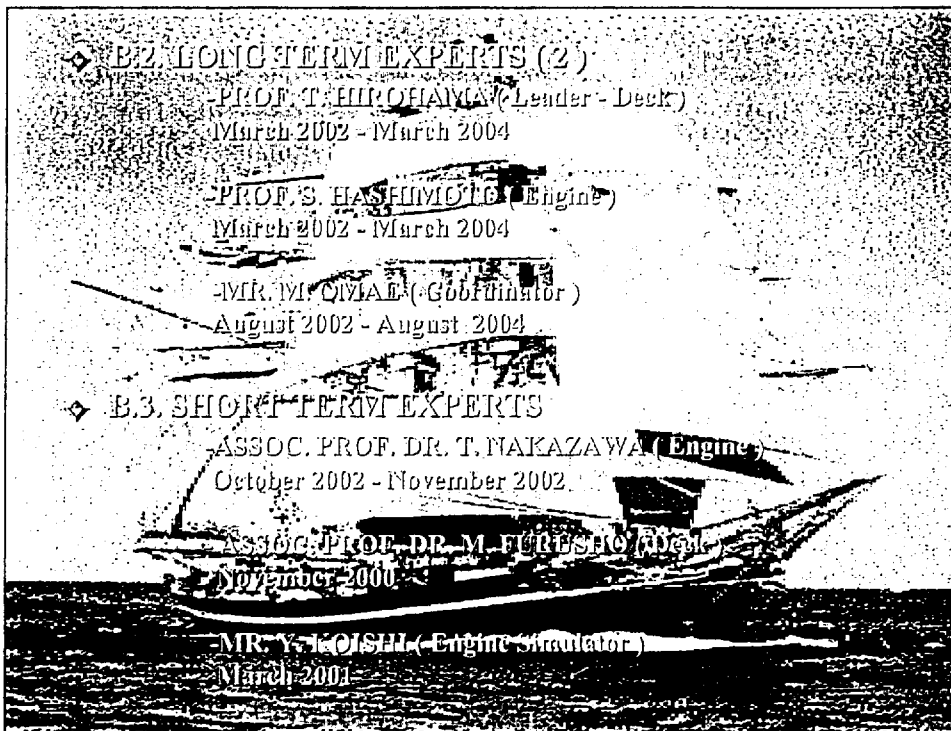


**B. INITIATION OF THE PROJECT**  
 From 1 April 2000 - Until 31 March 2005 (Duration 5 years)

**PROJECT INPUTS**

**B.1. LONG TERM EXPERTS (1)**

- PROF. T. KAWAHARA ( Leader - Deck )  
 April 2000 - March 2002
- PROF. M. HOSOI ( Engine )  
 April 2000 - March 2002
- ASSOC. PROF. DR. E. UCHIO ( Research )  
 April 2000 - October 2001
- MR. H. YAMAMOTO ( MSIC )  
 April 2000 - March 2003
- MR. R. MIZUTANI ( Coordinator )  
 April 2000 - September 2002
- ASSOC. PROF. DR. M. UCHIDA ( Research )  
 November 2001 - April 2003



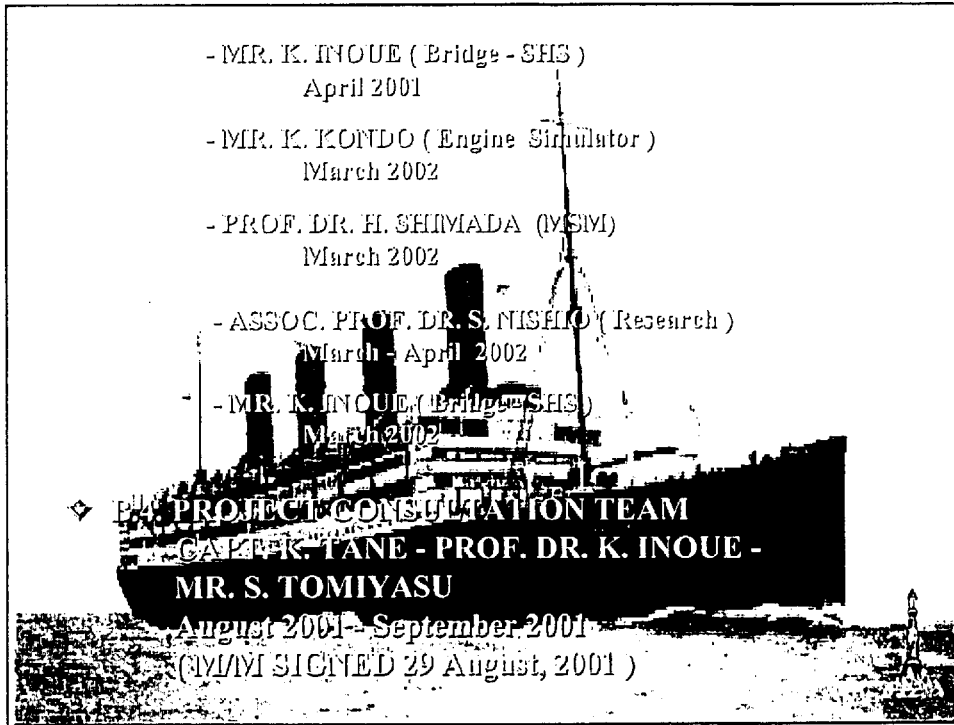
**B.2. LONG TERM EXPERTS (2)**

- PROF. T. HIROHARA ( Leader - Deck )  
 March 2002 - March 2004
- PROF. S. HASHIMOTO ( Engine )  
 March 2002 - March 2004
- MR. M. OMAE ( Coordinator )  
 August 2002 - August 2004

**B.3. SHORT TERM EXPERTS**

- ASSOC. PROF. DR. T. NAKAZAWA ( Engine )  
 October 2002 - November 2002
- ASSOC. PROF. DR. M. FURESHIO ( Deck )  
 November 2000
- MR. Y. KOISHI ( Engine Simulator )  
 March 2001

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◆ **B.5. FIRST JOINT COORDINATING COMMITTEE MEETING ( 26 October, 2001)**

**MR. A. ERDAL ( TURKEY )  
PROF. DR. OSMAN KAMİL SAĞ ( TURKEY )  
MR. Y. ODAWARE ( JAPAN )  
MR. Y. INABA ( JAPAN )**

◆ **B.6. COUNTERPART TRAINING IN JAPAN**

**Mr. Tanzer SATIR Onboard Training and SHS  
January - February 2001**

**Asst. Prof. Dr. İsmail ÇİÇEK Onboard Training and ERS  
January - March 2001**

**Dr. Sitku USTAOĞLU Research Planning  
February - March 2001**





Captain Ali CÖMERT Tanker Training  
July - September 2001

Assist. Prof. Dr. Münip BAŞ Onboard Training and SHS  
January - February 2002

Research Assistant Yalçın DURMUŞOĞLU ERS  
February - March 2002

Captain Ayhan ÇEKİÇ SHS  
June 2002 - July 2002

C/E Kemal DEMİREL ERS  
September 2002 - October 2002

❖ B.7. COUNTERPART PhD WORK IN JAPAN



Research Assistant Cemil YURTÖREN  
KUMM under supervision of PROF. Dr. K. INOUE  
September 2000 -

❖ B.8. MAIN EQUIPMENT DISPATCHED

Name of the Equipment	Description	Period
Ship-Handling Simulator	Japan Marine Science Ltd Details will be clear soon	September, 2001
Engine-Room Simulator	Norcontrol PPT2000-Propulsion Plant Trainer Sulzer - 12RTA 84 AC *Main Control Console for Engine Control Room *Large-Scale Interactive Mimic, Speaker System&CRT for Engine Room *Workstation for Instructor's Room *Student Workstation	April, 2001
Audio-Visual Educational Equipment	LCD Projector x 3 Lap-Top Computer x 2 OHP x 2	March, 2001
Hardware for Fluid Analysis	Main PC Secondary PC Printer Scanner Network Hub	January, 2001
Workstation and Local Operating Station (Additional to Engine-Room Simulator)	Local Operating Station Student Workstation x 2 Server Workstation UPS x 4	March, 2001

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Software for Fluid Analysis	Star-CD for Prostar for 2 active Processes	March, 2001
(Eye Mark Recorder)	Eye Mark Detection Unit Controller Analyzer	
Liquid Cargo Handling Simulator	Server Workstation Student Workstation x 6	March, 2001
Tanker Course Video soft	Prevention and reaction to marine oil spills under OPA 90	February, 2001
	Prevention and reaction to marine oil spills under MARPOL	February, 2001
	Permit to work and work book	February, 2001
	Personal safety on tankers, and instructor notes	February, 2001
	Over and under pressurization of tanks	February, 2001
	The ISM code and book	February, 2001
	Intro To liquefied gas tankers	February, 2001
	Ops and maintenance of IGS	February, 2001
	Crude oil washing operations	February, 2001

	Chemical tanker ops. Series part 1	February, 2001
	Chemical tanker ops. Series part 2	February, 2001
Tanker Course Training Equipment	Portable oxygen meter	February, 2001
	Portable explosive gas meter	March, 2001
	Portable toxic gas meter	
	Portable chemical absorption gas pump	February, 2001
	Tubes for gas pump (10)	February, 2001
	Neil Robertson Stretcher	February, 2001
	Escape set	February, 2001
Maritime English Test	ISF Marlines Test (500)	March, 2001
Maritime Journals	Fairplay (Weekly Magazine, Solutions monthly with Newbuildings, Daily e-mail news service, On-line services and News archive)	March, 2001
	Safety at Sea	March, 2001
Books	IMO Books and others	March, 2001

Personal Computer	Toshiba DynaBook x 5	April, 2000
	Macintosh Book	April, 2000
Printer	BJC-50V	April, 2000
	BJ-F6100	April, 2000
	BJ F850 x 2	April, 2000
	DJ-M170 x 2	April, 2000
Scanner	FB 636U x 2	April, 2000
Software	"Office 98" for Macintosh	April, 2000
	MS-Powerpoint 2000	April, 2000
	Norton System Works 2000	April, 2000
	File Maker Pro 5.0J	April, 2000
	MS-Office 2000 Professional	April, 2000
	Print Shop PRO7J	April, 2000
	"File Maker Pro SE"	April, 2000

MO Drive	MOS - S640S	April, 2000
	MOF-RM640/CS	October, 2000
MO Drive	V-640MO GR	March, 2001
Digital Camera	C-960 Zoom	April, 2000
	Camedia C-3030 Zoom	October, 2000
Compact Camera	"uZoom 140DX"	April, 2000
Video Camera	Digicam NV-C7	October, 2000
Field Scope	7 x 50 ZCF	October, 2000
	"NIKON EDIII"	March, 2001
Tripod	Nikon FT-1200, Vanguard VT-158	March, 2001
Portable Single Gas Monitor	Riken HS-94	March, 2001
Portable Oxygen Monitor	Riken OX-62B	March, 2001
Laser Range Finder	"Impulse 100XL"	March, 2001





## C. PROGRESS ACHIEVED IN THE IMPLEMENTATION OF THE PROJECT

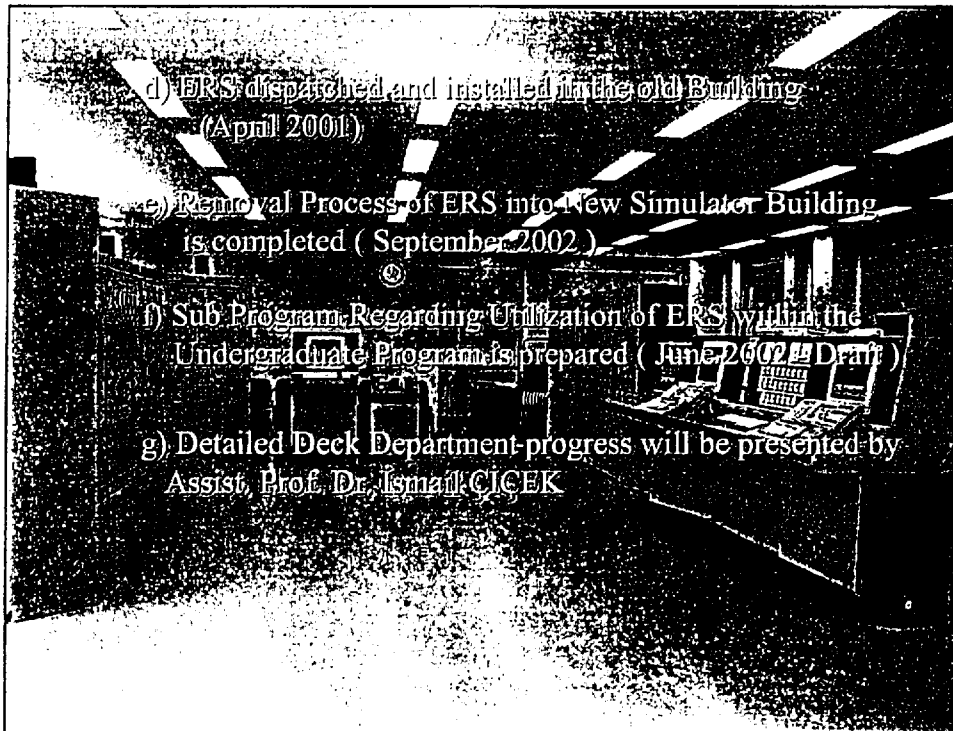
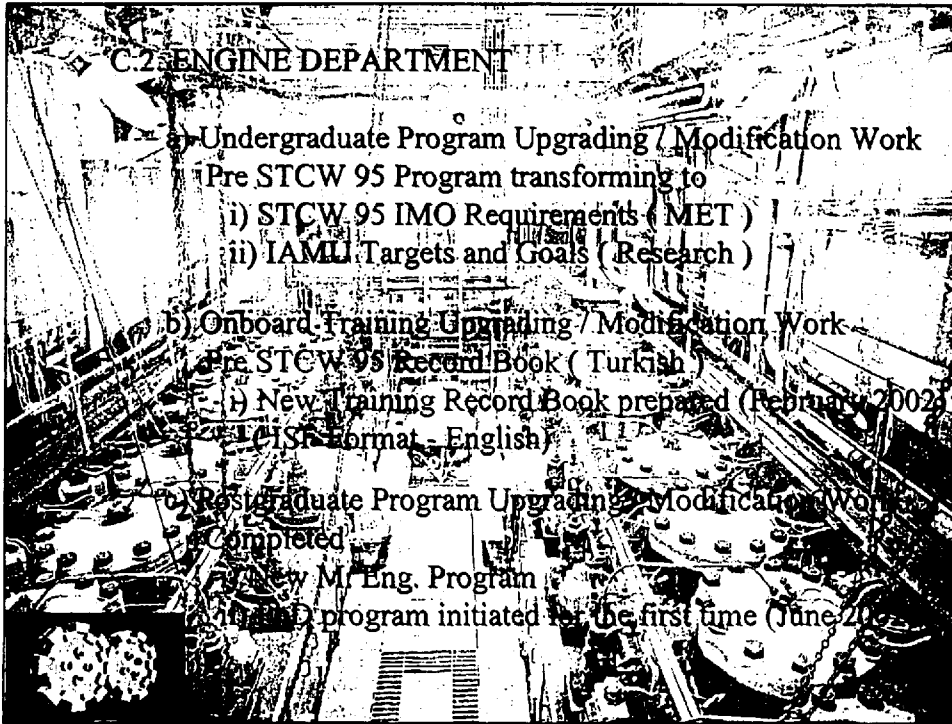
### ◆ C.I. DECK DEPARTMENT

- a) Undergraduate Program Upgrading / Modification Work Pre-SIGW-95 Program transforming to
  - i) SIGW-95 IMO Requirements (MET)
  - ii) IANTU Targets and Goals (Research)
- b) Onboard Training Upgrading / Modification Work Pre-SIGW-95 Record Book (Turkish)
  - i) New Training Record Book prepared (February 2002) (ISF Format - English)
- c) Postgraduate Program Upgrading / Modification Work Completed
  - i) New M. Eng. Program
  - ii) PhD program initiated for the first time (June 2002)



- d) Full Mission Bridge / SHS dispatched and kept in containers (March 2002)
- e) Liquid Cargo Handling Simulator dispatched and installed in OLD BUILDING (March 2001)
- f) New Simulator Building Completed at a cost of 1 Million USD (June 2002)
- g) Removal Process of Simulators from Old to New Building is Completed (September 2002)
- h) Sub Program Regarding Utilization of Simulators within the Undergraduate Program is prepared (June 2002 - Draft)
- i) Detailed Deck Department progress will be presented by Assist. Prof. Dr. Özkan POYRAZ





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### ❖ C.3. RESEARCH WORK

#### C.3.A. RESEARCH PROJECTS

- a) Human Error “ Eye Mark Recorder ”  
Dr. Sıtkı USTA O ĞLU
- b) Oil Spills Mathematical Modeling  
Research Assistant Sevilay CAN
- c) Oil Spills Measurements and Analysis  
Senior Lecturer Z ühal ER
- d) Oil Spill Remote Sensing  
Research Assistant Burcu Ç İÇEK



- e) Oil spills Clean-up Technology  
Research Assistant Tanzer SATIR

- f) Detailed Research Work Progress will be presented by  
Dr. Sıtkı USTA O ĞLU  
Senior Lecturer Z ühal ER  
Research Assistant Tanzer SATIR  
Research Assistant Sevilay CAN  
Research Assistant Burcu Ç İÇEK

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C.3.B. JICA COUNTERPARTS INTERNATIONAL PUBLICATIONS  
( April 2000 - October 2002 )

a) Conference Presentations and Proceedings

Sag, O. K. and Cicek, I.; "Baseline Study, and the Preparation Towards the XXIst Century Undergraduate Deck and Engine Curricula of Istanbul Technical University, Maritime Faculty," *International Association for Maritime Universities (IAMU) Inaugural General Assembly*, 26-29 June 2000), Istanbul, Turkey.

Furusho, M., Ustaoglu, B. S. (2001): Visibility Level At Sea; International Lighting Congress, Istanbul, TURKEY

Ustaoglu, B. S, Furusho, M. (2002): The Importance And Contributions of VTS Towards The Establishment Of The Global Safety Management System For The Safety Of The Maritime Transportation, IAMU 3<sup>rd</sup> General Assembly And International Conference, Rockland, Main, USA.

Nakazawa, T., Cicek, I., Deniz, C.; and Kusoglu, A.; "The Effective Training Method for Marine Engineers: Ships in Service, Training Ships or Engine Room Simulators," *International Conference on Engine Room Simulators V (ICERS V): Simulator Aided Education & Training in the New Millennium*, 25 – 29 June 2001, Singapore.

Cicek, I., Deniz, C., Kusoglu, A., and Nakazawa; T.; " A Comparative Study of Training Methods for Training and Education of Marine Engineering Students of IAMU Universities," *International Association for Maritime Universities (IAMU) Second General Assembly*, 3-7 October 2001, Kobe, Japan.

Bas, M., Er, D., Cicek, I., and Sag, O. K.; "ITUMF Maritime English Education & Training Model," *International Seminar on Maritime English, Conference Proceedings*, pp. 183-197, 20-22 March 2002, Istanbul, Turkey.

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Uchida, M., Kusoglu, A., Cicek, I., Bayülken, A., and Nakazawa, T.; "ERS as a Field for Research on Safety Management," *International Maritime Lecturers Association 12*, October 2002, Shanghai, Republic of China.

Cömert, A., Deniz, C., Yamamoto, H.; 'Teaching English as a Maritime Language and a Model of Maritime English Curricula for non-native English Speaking Seafarers' International Seminar on Maritime English, Conference Proceedings, pp. 105-115, 20-22 March 2002, Istanbul, Turkey.

Cicek, I. and Uchida, M.; "Improvement of Marine Engineering Curriculum Using The Engine Room Simulator," *International Association for Maritime Universities (IAMU) Third General Assembly*, 26 – 29 September, Castine, Maine, USA.

Poyraz, Özkan; 'Development of Performance Evaluation,' IAMU 3<sup>rd</sup> General Assembly, 26-29 September 2002, Maine, USA.

#### b) Journal Publications

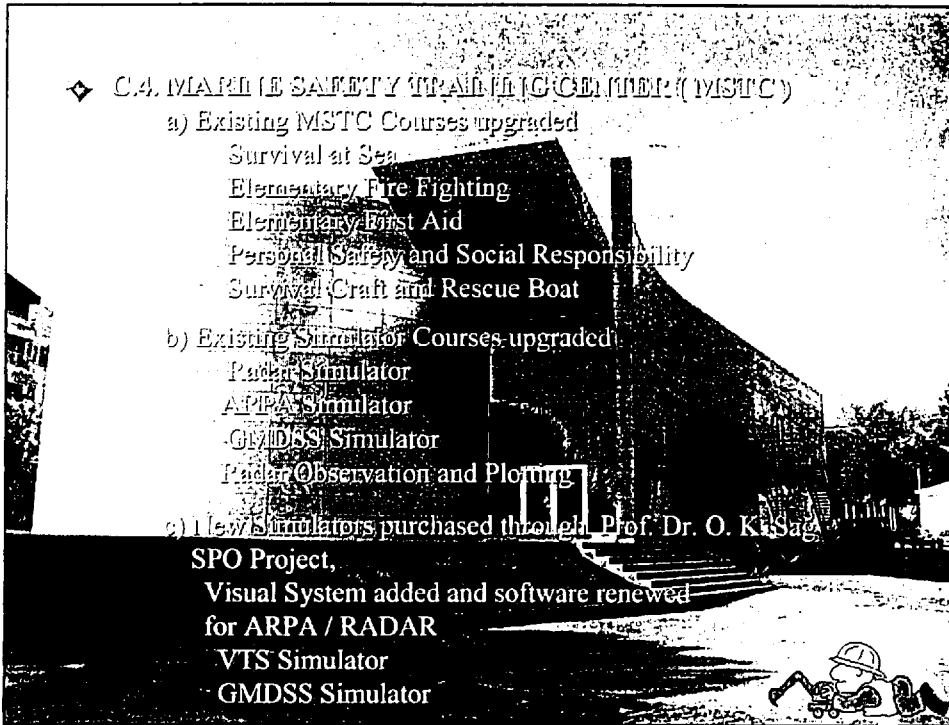
Sag, O. K. and Cicek, I.; "Baseline Study, and the Preparation Towards the XXIst Century Undergraduate Deck and Engine Curricula of Istanbul Technical University, Maritime Faculty," *IAMU Journal*, vol. 1, no. 2, pp. 50-67.

Cicek, I., Deniz, C., Kusoglu, A., and Nakazawa, T.; "A Comparative Study of Training Methods for Training and Education of Marine Engineering Students of IAMU Universities," *IAMU Journal*, Volume 2, Number 1, March 2002.

Nakazawa, T., Deniz, C., and Cicek, I.; "A Proposal for Marine Engineering Institutions to Organize the Effective Training Method," *SNAME 24th Annual Journal*, Society of Naval Architects & Marine Engineers, Singapore, 2000/2001.


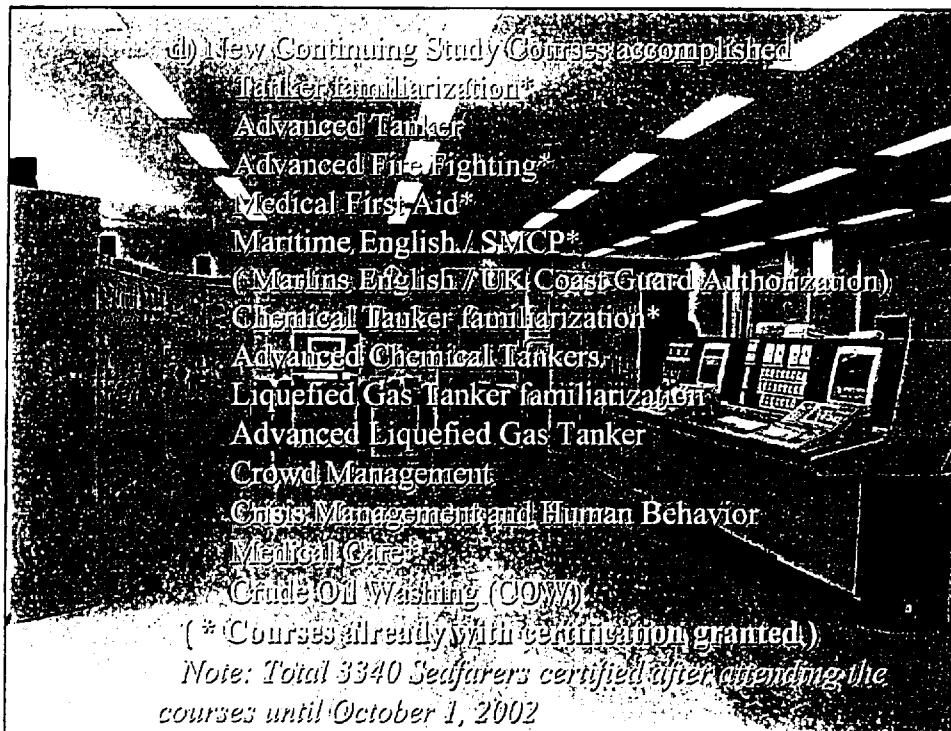
 





◆ C.A. MARITIME SAFETY TRAINING CENTER (MSTC)

- a) Existing MSTC Courses upgraded
  - Survival at Sea
  - Elementary Fire Fighting
  - Elementary First Aid
  - Personal Safety and Social Responsibility
  - Survival Craft and Rescue Boat
- b) Existing Simulator Courses upgraded
  - Packer Simulator
  - ARPA Simulator
  - GMDSS Simulator
  - Packer Observation and Plotting
- c) New Simulators purchased through Prof. Dr. O. K. Sagar SPO Project,
  - Visual System added and software renewed for ARPA / RADAR
  - VTS Simulator
  - GMDSS Simulator

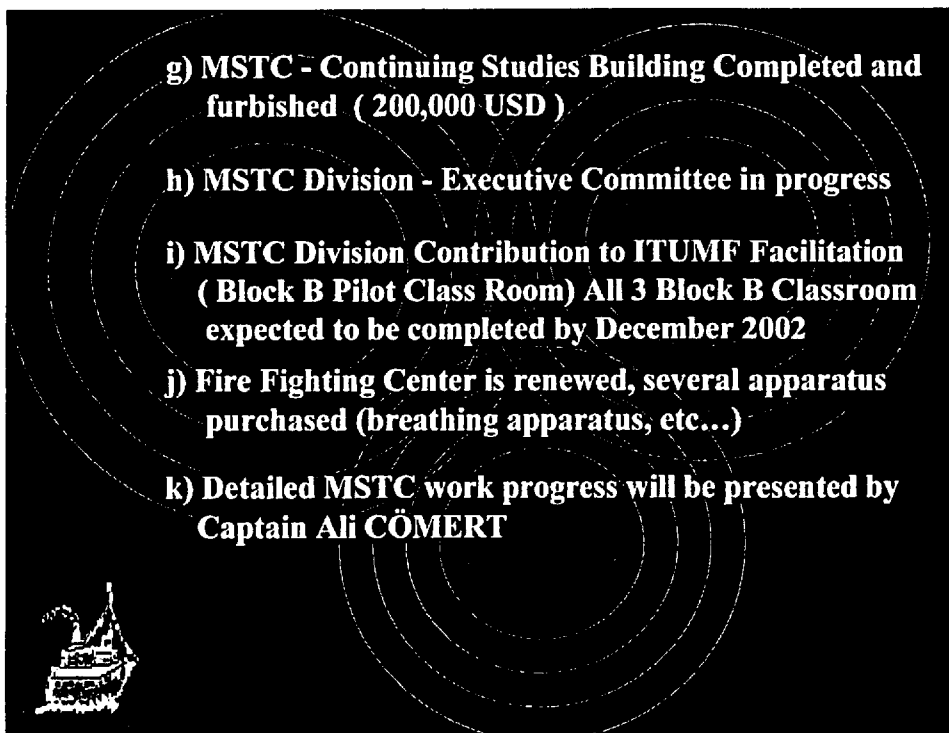
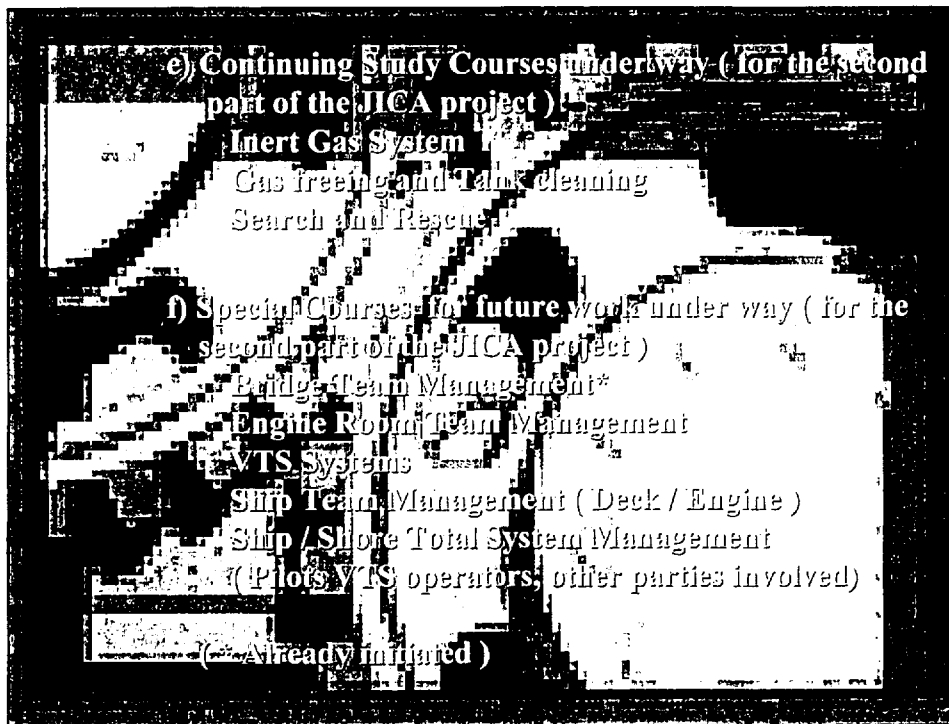
d) New Continuing Study Courses accomplished

- Tanker familiarization\*
- Advanced Tanker
- Advanced Fire Fighting\*
- Medical First Aid\*
- Maritime English / SMCP\*
- (Maritime English / UK Coast Guard Authorization)
- Chemical Tanker familiarization\*
- Advanced Chemical Tankers
- Liquefied Gas Tanker familiarization
- Advanced Liquefied Gas Tanker
- Crowd Management
- Crisis Management and Human Behavior
- Medical Care\*
- Crude Oil Washing (COW)

(\* Courses already with certification granted)

*Note: Total 3340 Seafarers certified after attending the courses until October 1, 2002*

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❖ C.5. RECOMMENDATIONS / OBLIGATIONS BY / OF THE PROJECT MANAGER FOR THE SECOND HALF OF PROJECT

- a) Complete Deck / Engine Undergraduate Curricula in line with new MET Accreditation System (METHAS – A Combination of ISO, STCW , ABET; Turkish National Accreditation System) in Time for Quality Standards Assessment of IMO / STCW95 before February 2004
- b) Complete initiated theoretical Research work and publish internationally
- c) Research utilizing new Simulator Center and cooperating with KUMM and publish internationally at IMO platforms
- d) Carry on with self assessment of On Board Training and Graduates (Undergraduate programs utilising simulation)



- e) Upgrade Classical Deck / Engine Laboratories and teaching facilities in the campus.
- f) Make sure all future short term consultants to be
  - a) Simulator software experts
  - b) Simulator program development experts
- g) Strongly recommend new long term expert to be Simulator software / program development expert
- h) Strongly recommend all future counterpart training to be on Simulator software and program development
- i) Apply to government for post regarding recruitment of new counterparts ( Total 10 Research Assistants minimum )
  - I-Engine
  - II-Deck
  - III-Naval Architects
  - IV-Electronics



*oel*      *gjn*

- j) Apply similar Organization Chart as in MSTC Division to Simulator Center Functions
- k) Employ new technical personnel for Simulator Center Maintenance work with MSTC further income
  - I- Technicians
  - II-Electricians etc.
- l) Still time available for statistical work as recommended 1½ years ago to mark reference line for the conditions in Turkey to quantitatively assess the progress achieved at the end of the project. (One can not measure progress achieved unless you know conditions at initiation point)
- m) Publish internationally / nationally and promote the project



6.6 ALREADY ACHIEVED DIRECT/INDIRECT POSITIVE IMPACTS OF THE PROJECT

- a) Establishment of International Association of Maritime Universities (IAMU)
  - respectability and High official status at IMO (SEMI Chairman of IMU Issue of 102 Administrations parties to IMO)
- b) Strong demand for bilateral cooperation from other International MET Higher Education Institutes


Note: Initial total 3 (Roumania - Egypt - USA (Maine)) bilateral cooperation increased to 12 to include: KUNIM / TUJIMV (Japan), Gamma (Poland), Rujela (Ghana), SUNY (USA), Admiral Uvalarova (Russia), Odessa (Ukraine), Shanghai (China), Nikola Vapstov (Bulgaria)


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f) Involvement with BSUN (Black Sea Universities Association) with more than 100 members  
 g) Involvement with IMAM (International Maritime Association of Mediterranean) with more than 30 members  
 h) Briefly with Turkish Government Ship Planning Organization (GSO) grants. Mr. Kemal Sarı was granted a 3 years SPO project in conjunction with JICA project with a total budget of 1.2 million USD. The budget mainly utilized to finance the Simulator Building plus purchasing ARPA/RADAR, GMDSS and VTS Simulators.  
 i) Consultancy work for the Turkish Universities Faculties  
 I- Black Sea University  
 II- Istanbul University  
 III- Izmir University  
 IV- Etilim University

h) Consultancy to the Government (Administration)  
 - New MET legislation development  
 - Representation of Turkey at IMO (All 3 IMO Turkish Competent persons are from TTUIME)  
 - Istanbul / Canakkale Straits VTS System Consultancy to the government  
 - Seafarers Examination Center of Turkey  
 - MSTC of Turkey  
 - Simulation Center of Turkey  
 i) Employment of TTUIME Cadets and Graduates by International Ship Owners  
 I- Teckay (Canada)  
 II- Chevron (USA)  
 III- NYK (Japan)  
 IV- Zodiac (UK/Israel)



- 
- j) Employment of ITUMF Cadets and Graduates through ITUMF Career Development Office Protocol by more elite Turkish Shipowners ; thus contributing to ITUMF
  - k) Most Recent SUNY / ITUMF Academical Protocol (First Ever joint diploma of MET in the world)  
Core of International Undergraduate Maritime University of the world – 2004 (?)
  - l) Strong relations with INTERTANKO, INTERCARGO for the International University
  - m) Initiation of Everlasting Academical Cooperation with KUMM, TUMM (Japanese MET Universities )
  - n) Introduction of Turkish Seafarers into Japanese Fleet (Shipowner)

- 
- o) Cooperation with Class NK of Japan in setting International MET Quality Standards (ITUMF ISO 9000 Accreditation)
  - p) Possible third party MET Education for other Turkish originated Republics (ex Soviet Union) after the 5 year duration of the project



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❖ C.7. FACTORS EFFECTING / WILL EFFECT NEGATIVELY TO THE EFFICIENCY OF THE PROJECT

- a) Administration - Misinterpretation in the responsibilities / authority of the Project Manager
- b) Problems experienced with dispatched equipment – (SHS)
- c) Questions on future allocation of the project budget



**8. BRIEF ASSESSMENT OF THE PROJECT MANAGER**

	EFFICIENCY	EFFECTIVENESS	IMPACT	RELEVANCE	SUSTAINABILITY
OVERALL GOAL	MISINTERPRATATION IN ADMINISTRATION FUTURE BUDGET PROBLEMS WITH SOME DISPATCHED EQUIPMENTS INTERNATIONAL EMPLOYMENT	MISUSE OF L/T, S/T EXPERTS LACK OF C/P	IAMU IMO BILATERAL COOPERATIONS	BSUN IMAM	CONSULTANCY TO TURKISH GOVERNMENT
PROJECT PURPOSE		STATISTICAL WORK NOT CARRIED OUT YET	WMU UNDERGRADUATE SCHOOL	SPO GRANTS	CONSULTANCY TO OTHER TURKISH MET UNIVERSITIES
OUTPUTS	PROGRAMS DEVELOPED ONBOARD TRAINING	BUILDING INVESTMENTS MSTC COURSES PAPERS PUBLISHED			THIRD PARTY MET EDUCATION
INPUTS	C/P TRAINING L/T EXPERTS EQUIPMENT DISPATCHED S/T EXPERTS		<p>- A LOT OF POSITIVE, SOME NEGATIVE FACTORS AT PRESENT ARE IRREGULARLY PLACED IN THE MATRIX.</p> <p>- IF PROPERLY PLACED BY THE END OF THE PROJECT, IT WILL BE BEST EVER JICA PROJECT.</p> <p>- SO FAR; DECK, ENGINE, RESEARCH GROUPS HAVE DONE GOOD PROGRESS; MSTC ALREADY PRODUCED TANGIBLE RESULTS, ONE STEP AHEAD OF ALL OTHER DIVISIONS</p>		

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❖ **C.7. FACTORS EFFECTING / WILL EFFECT NEGATIVELY TO THE EFFICIENCY OF THE PROJECT**

**a) ADMINISTRATION OF THE PROJECT**

Misinterpretation in the responsibilities / authority of the Project Manager.

No initiative is allowed to PM unlike in the signed document. Thus, a lot of decisions taken is acknowledged by PM after execution. PM although kindly pointed out this inconveniency several times officially, is utilised so far only as a symbolic coordinator of Turkish side signing routine (sick leave, holiday documents, etc..) documents for customs purposes. So PM's experience in such organization is not utilised at all so for leading to a number of deficiencies in the project as in the case of purchasing FM – SHS.

The correction of this status will lead to increased efficiency in the second part of the project. Otherwise PM does not hold any responsibility for any poor evaluation of the project as a result of assessment at the end of the project.



**b) PROBLEMS EXPERIENCED WITH DISPATCHED FM-SHS**

1) The suggestion of ITUMF to JICA regarding the FM-SHS to be purchased (STCW 95 standards) is given as a sample document in Preliminary study, short term (1), and (2), and especially to the Implementation Study Team.

2) Implementation Study Team told Turkish Side that bidding will be executed in Japan, and it is up to JICA to design the specifications for bidding. Turkish side has no saying (!) in what is dispatched, and JICA will do its best.

3) ITUMF heard several gossips from international sources, and warned JICA officially about bidding to receive the most optimum equipment for the budget.



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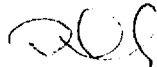

4) As a result ITUMF learnt that the clause "access to Source Code" is added to the conditions of the bidding at this stage.

5) Though asked several times, no information was given to ITUMF regarding specifications, but assured on paper officially that ITUMF will receive one of the best full mission Bridge-SHS of the world, fully satisfying STCW 95 standards.

6) ITUMF warned JICA again referring to DNV standards, but it is heard that leader at the time did not think DNV standards were necessary, and informed JICA accordingly without consulting to Project Manager at all

7) Meanwhile Black Sea University in Turkey purchased a full mission bridge simulator from SINDEL for a mere 400,000 USD all in line with DNV and STCW 95. Now Turkey knows very well at what price, an internationally accepted standard SHS can be purchased. This has been introduced to all shipping sector at an Opening Ceremony. Also all related parties know that ITUMF simulator will cost approximately 2 Million USD. Our reasoning was it will be one of the best in the world, with access to source code, available for research with KUMM.

8) Impressed with also sophisticated building; Alumni, students, all national and international shipping companies anxiously started waiting the Opening Ceremony so that FM-SHS can be utilised by the world.

9) Meanwhile after several requests an informal translation of bidding specifications made by Mr. Mizutani (not a professional Seafarer) reached to PM. At this time, SHS was already purchased and dispatched to Turkey. There was nothing PM could do.

10) Authority / Responsibilities of PM was asked to JICA on paper officially. The answer received by PM was to cooperate with project leader and to decide mutually. This is not what it says on R/D. Still even this was not executed.

11) When SHS was received, C/P noticed several deficiencies not satisfying minimum STCW 95 (never mind DNV standards), and documented and informed the results to JICA. Answer received was not satisfactory.



12) Each scenario dispatched has several different unpredictable deficiencies. Thus C/P are working on them tediously, and further detailed deficiencies will be informed in due course.

13) PM took the difficult decision of postponing the official opening ceremony which was due for November 30 before the departure of Ambassador Takenaka from Turkey, so that he can honor the occasion. Otherwise it would have meant exposing the deficiencies to professional experts, even to those who warned us in the beginning, thus resulting in major embarrassment for Japan, Turkey, JICA, ITUMF, and for all those who sweated for the project so far.

This decision is accepted by High Ranking Japanese Officials expecting an urgent solution especially from this meeting.



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14) Urgent short term solution is kindly brought to the attention of "Midterm Evaluation Mission" on this very fragile situation.

15) Otherwise new solutions should urgently be provided with JICA support like purchasing another economical simulator like at Trabzon, but in line with STCW 95.

16) Still this project has more then 10 times the capacity of an ordinary JICA project although suffering such above explained deficiencies. If properly directed in the second half, it will be the BEST EVER JICA Project executed. But please kindly consider PM suggestions from now on as clearly stated in R/D.



#### c) QUESTIONS ON FUTURE ALLOCATION OF THE PROJECT BUDGET

In the past, as in all other major important issues, PM has never been informed about the utilisation of the project budget. P/M has no idea, about what are the future allocations for the next 2½ years. Thus, he is in no position to take decisions. Please kindly inform him on this topic as well.





❖ ATTACHMENTS TO PROF. SAĞ'S PRESENTATION

1) Recommendation by PM SAĞ

Outstanding Deficiencies – According to PDM by April 2001  
(No action has been taken in line with PM SAĞ's proposal in  
the last 1½ years - totally ignored.)

2) Proposal by PM SAĞ

Utilisation of METAS for the Program Development in line  
with STCW-95 A/8 (No action has been taken in line with  
PM SAĞ's proposal in the last 1½ years – totally ignored)

3) Standard for Certification of Maritime Simulator Systems  
– DNV January 2000 (totally ignored upon the instruction of  
Prof. Kawahara without consulting to PM)

4) STCW 95 Related Regulations Chapter I/12, Code A I-12,  
Code B I-12 (Please read carefully. You will see existing SHS  
does not comply with a number of items specified.)



5) Unofficial Translation of specification of SHS  
(Dispatched SHS does not satisfy even some of the stated  
points within the sub standard specifications given)

6) Attachment 1 to M/M of 25.12.1998 Meeting  
A sample specification of SHS proposed by ITUMF to JICA.

7) The specifications of "TRANSAS" FM Bridge Simulator  
which costs approximately 6 times cheaper than ITUMF was  
dispatched at the time of bidding.  
(costs approximately 400,000 USD)

8) R/D of December 17, 1999 Meeting

9) M/M of December 17, 1999 Meeting



*[Handwritten signatures]*

10) Some interesting correspondence between Prof. Captain Kawahara and PM SAĜ

- a) letter of Prof. Kawahara dated 23/8/2000  
(coming ship-handling simulator will be one of the best in the world – assuring of official Japanese Delegation at ITUMF)
- b) letter of Prof. SAĜ dated 11/8/2000  
(warning Prof. Kawahara about SHS)
- c) letter of Prof. Kawahara to Mr. Watanabe (3/9/2000) forwarding Prof. SAĜ's letter of 4/9/2000 warning about gossips about bidding.
- d) Prof. Kawahara's letter of 8/9/2000 assuring Prof. SAĜ that SHS will satisfy STCW 95, and DNV standards

- e) Prof. SAĜ requesting official translation of specifications (8/11/2000)
- f) Prof. Kawahara (2/10/2000) assuring DNV standards
- g) Minutes of Meeting 19/9/2000  
(Prof. Kawahara assures that SHS satisfies DNV standards)
- h) Prof. Kawahara (14/11/2000) informing P/M to report to him with administrative work.  
Prof. Kawahara (14/11/2000) informing P/M regarding no official English version of specifications will be available and a major change of
  - Disclosure of source code
  - Compatibility with KUMM SHS is required before going to bidding.

*Des yn*

i) Prof. Kawahara (12/01/2001) assuring P/M that no English version of specification will be made available to him, but assuring P/M that specifications is at DNV standard

j) P/M SAĜ (12/4/2001) writing to Mr. Watanabe about some proposals regarding the necessity of statistical work, and METAS

k) Mr. Watanabe's letter back to P/M indirectly (!) through Mr. Mizutani (30/5/2001)

l) Prof. Kawahara's letter to P/M (22/6/2001) informing authority / responsibility of PM unlike stated in R/D.

m) PM SAĜ's correspondence to Mr. Watanabe (3/7/2001) and to Prof. Kawahara (18/10/2001) showing his frustration about inefficient conduct of project.



n) P/M SAĜ's letter (23/7/2002) to Prof. Hirohama about deficiencies of dispatched SHS.

o) Prof. Hirohama's reply (11/9/2002) to Prof. SAĜ.



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