

World Maritime University

The Maritime Commons: Digital Repository of the World Maritime University

World Maritime University Dissertations

Dissertations

2000

Memorandums of understanding on port state control : the need for a global MOU?

Dilip Mehrotra
World Maritime University

Follow this and additional works at: https://commons.wmu.se/all_dissertations



Part of the [Admiralty Commons](#)

This Dissertation is brought to you courtesy of Maritime Commons. Open Access items may be downloaded for non-commercial, fair use academic purposes. No items may be hosted on another server or web site without express written permission from the World Maritime University. For more information, please contact library@wmu.se.

WORLD MARITIME UNIVERSITY
Malmö, Sweden

**Memorandums of Understanding on Port State
Control:
The Need for a Global MOU?**

By

DILIP MEHROTRA
India

A dissertation submitted to the World Maritime University in partial
fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE
In
MARITIME SAFETY AND ENVIRONMENTAL PROTECTION
(Operational)

2000

DEDICATION

To My Beloved Parents

DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been confirmed on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

..... (Signature)

..... (Date)

Supervised by:

Name : Jan-Åke Jönsson

Office: Associate Professor, Maritime Safety and Environment Protection
World Maritime University

Assessor:

Name: Dr. P. K. Mukherjee

Office: Professor, Maritime Safety and Environment Protection

Institution : World Maritime University

Co-assessor:

Name: Tage Tirén

Office: Chief Surveyor (Retired)

Institution: Swedish Maritime Administration

Acknowledgement

I wish to express my sincere gratitude to the Ministry of Surface Transport and the Directorate General of Shipping, Government of India, for providing me the opportunity to study at the World Maritime University.

Shri B.K. Biswas, Chief Surveyor with the Government of India, Director General of Shipping for having recommended my nomination.

The IMO-Norway Technical Co-operation Programme Fellowships for having sponsored my studies at WMU.

Shri Subimal Chakarborthy, Principal Officer, Mercantile Marine Department, Chennai District for all his help and guidance.

Shri B. Ganguli, Secretary, Indian Ocean Memorandum of Understanding, for granting me an interview and spending his valuable time during my visit to IMO, Goa, India.

Shri N. P. Pai, Deputy Chief Mechanical Engineer, Cochin Port Trust, for having assisted my family as a guardian during my stay at Malmo.

My thanks to the staff of Mercantile Marine Department, Cochin for all the help rendered to my family, while I was at Malmo.

Professor P. Mukherjee, Course Professor for his guidance throughout the 17 months of study at WMU.

My thanks and appreciation to Associate Professor A Jönsson for supervising the dissertation and for his valuable advise during the course of writing this dissertation.

My sincere gratitude to those without whose help, completing this dissertation would not have been possible.

My appreciation and thanks to the Library Staff, especially to Susan and Cecilia, for all the help they rendered for the completion of my studies and dissertation.

I also express my sincere thanks to my wife Kirti for her encouragement and support and to my children Tarun and Pranav for bearing with me the separation during my stay at Malmo.

My gratitude to all the staff of WMU and friends.

Abstracts

Title Memorandums of Understanding on port State control: Need for a Global MOU?

Degree

MSc

The dissertation is a study of existence of substandard ships and the means to eradicate them, to ensure safety and protection of the environment. Further more the basis and development of co-operation in port State control in various region is discussed.

A brief look is taken on the circumstances leading to Indian Ocean Memorandum of Understanding (IOMOU), the flag State role in the implementation of IMO conventions and the role of classification societies in eradicating substandard ships.

Port State control is seen as a crucial step towards eradication of substandard ships. It acts as a safety net when the shipowner, classification society, flag State or insurer has in one way or another failed to do their job.

The adoption of Regional Co-operation arrangement - MOU's- in port State control is the only alternative and most effective means available to eradicate substandard ships and to protect the lives of seafarers and the marine environment.

Paris MOU on port State control, adopted in 1982, was the result after the grounding of "Amoco Cadiz", off the French Coast. It was the first port State control co-operation system in the world. Now there are seven Regional co-operations in place and more to be adopted.

Port State control has become a worldwide-accepted concept. To make MOU's successful, co-operation and exchange of information between MOU's is essential, so as to curtail the plying of the vessels, which have been targeted by one of the MOU. Regional MOU's bring harmonization in the standard of survey by all States by imparting training to all port State control officers, so as to achieve uniform

standard of inspection. A study of various MOU's on port State control has been carried out by the author.

The concluding chapters examine the prospects of a Global MOU on port State control with a co-operation between all the MOU's, so as to have a complete data bank and exchange of information on substandard ships. Exchange of information is vital for keeping a track on a ship.

Key words: Memorandum of Understanding, Substandard ships, Harmonization, Global MOU, Port State Control, Eradication

Table of Contents

Dedication	ii
Declaration	iii
Acknowledgements	iv
Abstract	vi
Table of Contents	vii
List of Tables	xi
List of Figures	xii
List of Abbreviations	xiii
1 Introduction	1
2 Circumstances leading to Indian Ocean MOU	8
2.1 Background	8
2.2 Functioning of various members	10
2.3 Jurisdiction	12
2.3.1 IMO Assembly Resolution pertaining to port State Control	13
2.3.2 Relevant IMO Conventions	14
2.4 Present status of member States of Indian Ocean region MOU	16
3 Present Status of port State control in India	19
3.1 Duties of flag State	19
3.2 Flag State implementation and port State control	21
3.3 Genuine link concept in the 1982 UNCLOS	27
3.4 Open Registries	28

3.5	Port State control in India	33
4	Relevant IMO Conventions and role of classification societies in port State control	38
4.1	Origin of classification society	38
4.2	IACS commitment	40
4.3	Duties of classification societies	44
4.4	Consequences of accidents on classification societies	50
4.5	Relevant IMO Conventions	56
4.6	Effect of ISM on port State control	57
4.6.1	Purpose of the Code	58
5	The need for Harmonized Regional Procedures and Global MOU on port State control	64
5.1	Why harmonized regional procedure?	64
5.1.1	Various existing MOU	73
5.1.2	Regions yet to establish MOU	86
5.1.3	Improvement in port State control after MOU'S	88
5.2	Role of IMO in Global MOU on port State control	89
5.3	Elements for harmonised regional procedure	92
5.3.1	Training as per IMO model course	92
5.3.2	Regional MOU'S meetings	93
5.3.3	Qualified and sufficient port State control officers	94
5.4	Need for a Global MOU	94
6	Conclusions and Recommendations	96
	Bibliography	100

Annexes

Annexe 1	Details of the IMO Conventions ratified by the IOMOU member State	110
Annexe 2	Flags dominating the world shipping	113
Annexe 3	International Conventions and Protocols ratified by India	114
Annexe 4	Procedure responding to port State control, by IACS Members and Associates	117
Annexe 5	Port State Inspections per Classification Society	120
Annexe 6	ABS proposal for older ships inspection	122
Annexe 7	Asia Pacific Report on ISM	123
Annexe 8	Target factor details of Paris MOU	125
Annexe 9	Comparative table of different MOU's	128
Annexe 10	Questioner and Replies received from the Secretaries of MOU's	133

List Of Tables

Table 2 A	Details of port State control inspection by members of IOMOU	16
Table 3 A	Top 10 users of open registries in 1999	30
Table 3 B	Total reported losses, 1979-98	32
Table 3 C	Details of Indian Vessels detained by various port State control authorities	35
Table 3 D	Port State and Flag State Inspection details	35
Table 3 E	Flag of the vessels that had more number of detentions	36
Table 4 A	Tokyo MOU detentions as per classification societies	49
Table 5 A	Paris MOU Inspection Figures	87

List of Figures

Graph 5.1	Statistics of ships detained by Paris MOU	77
Graph 5.2	Contribution by Member States of Paris MOU	78
Graph 5.3	Number of deficiencies observed, Paris MOU	78
Graph 5.4	Inspection by Individual Members as compared to the target of Paris MOU	79
Graph 5.5	Number of Individual ships inspected by Paris MOU	79
Graph 5.6	Overview of port State control results 1994 to 1998, Tokyo MOU	81
Graph 5.7	Number of ships with deficiencies, Tokyo MOU	81
Graph 5.8	Number of detentions, Tokyo MOU	82
Graph 5.9	Total Losses as a percentage of Shipping Afloat	88

List of Abbreviations

ABS	American Bureau of Shipping
BV	Bureau Veritas
DGS	Directorate General of Shipping
EU	European Union
GL	Germanischer Lloyds
IACS	International Association of Classification Societies.
IMO	International Maritime Organization
IOMOU	The Indian Ocean Memorandum of Understanding on port State control
ISM	International Safety Management Code
LR	Lloyd's Register of Shipping
MOU	Memorandum of Understanding
NK	Nippon Keji Kyo Kon
RINA	Registro Italiano Navale
SOLAS	Safety of Life at Sea
Tokyo MOU	Tokyo Memorandum of Understanding (formally known as the Memorandum of Understanding on Port State Control in the Asia Pacific Region)
UNCLOS	United Nation Convention on the Law of the Sea

Chapter 1

Introduction

“As the new Millennium unfolds, we can be sure that the rate of change will accelerate and it would be brave- or perhaps reckless- to try to predict what shipping will look like in ten year’s time, let alone in fifty or a hundred. That it will be very different is certain. But I would expect that, above all, it will be safer, because shipping safety and environmental protection are higher on the political agenda and are IMO’S most important objective and will still be our priority in the near and distant future” (Mr. William A. O’ Neil).

Ships and the management of ships represent one of man's oldest economic enterprises. Today, approximately 35,000 ships of ocean going size ply the sea routes. What has changed with the time are the types of ships from sailing ships to modern high-speed crafts.

The International Maritime Organization (IMO) has developed many international conventions to protect the safety of the crew, cargo, and the environment. Maritime accidents still happen resulting in losses of lives, property, and damage to the marine environment due to, among other reasons, increased merchant fleet age, improper maintenance on board ships to reduce costs, increasing lack of experienced crew due to shortage of trained manpower and non-compliance with minimum international safety standard.

In the chain of responsibility the shipowner is ultimately responsible for the safety of his vessels at sea. He must ensure that ship and crew always comply with international convention regulations. The shipowner must make sure that the ship and equipment are maintained to keep the prescribed level for safety at sea.

The flag State and classification societies play the most important role in ensuring that the shipowners and operators comply with all the regulations. Flag States must conduct inspections to ensure compliance with the requirements; the same applies

to the classification society entrusted to carry out statutory inspections on behalf of a flag State.

To have an effective lasting solution to ship safety problems co-operation of all participants in the international shipping industry is required. The IMO, flag States, port States, classification societies, shipowners, managers, crews, insurance underwriters, charterers, ship financiers and cargo owners all need to participate to have safer ships and cleaner oceans.

Now the question arises, what happens if the shipowner and the flag State fail to do their job, as required, to ensure the safety of the vessel and the environment. There is no check on the vessel after the issuance of the certificates, till the time they are due for annual or renewal survey. In other words, there is no inspection on the vessel for nearly a period of twelve months.

The shipowner will not carry out any rectification of the defects, if it is not interfering with his day to day operation of the vessel. For example, if a lifeboat is lost at sea due to bad weather and the Master requests a new lifeboat, the owner will take action only if he is concerned about the safety of his employees. Otherwise he may delay till the next safety equipment survey falls due.

To overcome the problem of unseaworthy ships run by unscrupulous operators was one of the reasons why port State control came into existence. Even some of the classification societies and flag State Administrations failed to comply with the requirements of the International Maritime Conventions in one way or the other. Now the target of IMO is to cover the entire world with different Memoranda of Understanding (MOU) on port State control.

The first International Convention for the Safety of Life at Sea (SOLAS), adopted in 1914, already contained a provision calling for the control of ships while in the ports of contracting governments and from then on, in some form or the other, such provisions have been made in most of the international conventions dealing with safety and environment protection.

So we can say that port State control is to eliminate substandard ships from operating, and at the same time also to confirm that ships which are operating are complying with all international conventions. In the following chapters there is discussion on substandard ships. What is a substandard ship? A ship is regarded as substandard if the hull, accommodation, machinery or equipment for radio, life saving and fire fighting are below the standards required by the relevant convention. A ship is substandard if she is not in a possession of valid statutory certificates, or if she presents a threat to marine environment (Ulstrup).

“Substandard ship” has been defined in IMO Resolution A.787 (19) in Chapter 1.6.9 as “A ship whose hull, machinery, equipment or operational safety is substantially below the standards required by the relevant convention or whose crew is not in conformance with the safe manning document.”

To identify a ship, which does not meet the above definition as a substandard ship may sometimes be a difficult task for the port State control officer. A ship to be called a substandard ship has to be substantially below the standard required by the convention. The officer carrying out inspection has to be experienced, as he ultimately has to decide on the spot the action to be taken.

Initially very few States having major interests in shipping were involved in maritime safety and pollution prevention. For example, following the Court of Formal Investigation into the loss of the *Titanic*, representatives from just 13 States attended the international conference convened by the United Kingdom in London in 1913 (Cowley, 1989_a).

In order to deter the operation of deficient vessels, coastal States decided to increase their supervision and entered into regional agreements. It was also recognized that to prevent unsafe ships from being diverted to ports and regions where port State control standards are minimized or not enforced procedures of port State control must be uniformly applied in all parts of the world.

The tendency of European and North American shipowner's to flag out their ships to open registers accelerated toward the end of 1970. As the foreign ships safety standard started to decline the Hague Memorandum of Understanding was established in 1978 by eight North Sea States Belgium, Denmark, France, Federal Republic of Germany, Netherlands, Norway, Sweden and the United Kingdom. The six monthly frequency of information exchange was too low to be of any result. In January 1982 the Hague Memorandum was superseded by the Paris MOU, with the additional participation of Finland, Greece, Ireland, Italy, Portugal and Spain. In 1994, Canada became a full member (Cowley, 1995_b).

Resolution A. 682(17), entitled "Regional Co-operation in the control of Ships and Discharges" recognizes the important contribution to maritime safety and pollution prevention made through regional co-operation. The resolution invites Governments to consider concluding regional agreements on the application of port State control measures in co-operation with IMO.

It can thus be said that the Paris MOU was the beginning of the era of Regional MOU's on port State control. The last one signed on between States is known as the Black Sea MOU. After the Paris MOU came the Tokyo MOU, formerly known as the MOU on port State control in the Asia pacific region, and the last two MOU's signed are the West and Central Africa Region signed on 22nd October 1999 and Black Sea MOU signed on 7th April 2000. Remaining to be signed is the Persian Gulf Region. But will this solve the ongoing problem of substandard ships from plying? Will MOU's be sufficient or would we require more control and monitoring of the substandard ships.

Regional MOU's may be able to control the ships plying in their region, but nothing stops the owners from plying in other parts of the world. Presently, all the MOUs are not in a position to implement the control due to shortage of funds and lack of trained manpower. There are many maritime states, which do not have the necessary expertise in port State control inspection. The surveyors are new in this area of carrying out port State control. To do that in a reasonable manner the surveyor should have sufficient knowledge. Whatever training may be imparted to

him, it is the experience which will be a tool for him to carry out port State inspection.

The port States cannot ignore the shipping industries and shipowner's concern with regard to different standards of port States control inspections and a lack of harmony. The issue was raised at a meeting of the Asian Shipowner's forum (ASF) safe Navigation meeting held in Singapore. A communiqué issued by the Committee highlighted the owners concern about the rising number of inconsistent and non-uniform inspection standards adopted by port State control (Bousen, 1999a).

Port State control inspection is different from flag State inspection. The flag State surveyor or recognized organizations carry out inspection for the issuance of statutory certificates. That survey can be carried out at a time decided by the owner and surveyor whereas the port State has to be completed during the call of the vessel at the port. The main difference between the two, is that the first one is on owner's request and the latter, i.e. the port State, is not a statutory requirement for the owner, but a check on his vessel by the port States. That is one of the reasons why the port State control officer is not always a welcome guest on board ship.

What the Paris MOU basically did was that 14 member States joined their forces to make the inspection more stringent and deter the shipowner of an unseaworthy ship from sailing his vessel. Initially shipowners and developing states for various reasons did not take it in a good spirit.

When we talk about IMO initiatives or new conventions, it always reminds us of some disaster, from *Titanic* to *Exxon Valdez*. While writing this dissertation, there have been quite a number of accidents in the last 6 months. There is no doubt that in the future the name of the tanker *Erika* will be included in most maritime disaster discussions. At the same time it is quite certain that no new convention will come from IMO due to the breaking of *Erika*, as we already have enough which should have taken care of tankers like *Erika*!

It is one of the weak links between the flag State, classification society, owner or others, which must have been responsible for such a drastic disaster in maritime history. Questions are being raised as to what the port States are doing? But port State control is not responsible for the seaworthiness of the vessel as such! It's a spot check, because a port State control officer is not expected to check the construction defects, especially not inside the tanks, unless there is some evidence of structural failure. How can a port State control officer go inside the tanks of the tanker without gas freeing, etc? The question should be raised with the International Association of Classification Societies (IACS) and the flag State. It's like doing a post-mortem now. Will we learn any lesson from this? May be for a few months, charterers might be careful in chartering old vessels and port State control may be more vigilant, but is this a solution?

No doubt the port State has taken the leading role in eliminating substandard ships, but it should not be taken as the ultimate solution. The cost of implementing port State control is one of the factors, which comes as a hindrance for the developing States. The other area, which has been discussed in the maritime industry, is about the different standards of port State inspection. To achieve a harmonized level of inspection through out the Globe, what is required is a co-operation between all the MOU's. To achieve co-operation and co-ordination between different port State regimes, a global network of information exchange is essential.

Inspite of stringent controls by classification societies, flag States, port State control, insurers and brokers, substandard ships do exist. The report of various MOU's and the US Coast Guard confirms this. Port State control is no substitute for effective flag State control and, on its own, unlikely to eliminate substandard ships. What effective port State control can do is to prevent some loss of life and may reduce environmental pollution.

No ships are allowed to leave port without having all statutory certificates. Port clearance is only supposed to be given after sighting all the statutory certificates. Responsibility for issuing these certificates lies with the flag States or by the classification society if delegated to do so. Then why is it difficult to identify

substandard ships? The infrastructure is there; it is not a difficult task to identify the sub-standard ships as information exists in some form or another. The main problem appears to be that the information is not available to all concerned.

The port State control regime has achieved substantially in eradicating substandard ships since the inception of the Paris MOU. The other advantage is that shipping companies hesitate in taking a chance to allow their ships to operate in substandard condition. In the pre port State control days, owners were not as particular about the requirements of the ship. But now they are aware that the ship may be detained and it is an expensive affair if his ship is detained. He would rather comply with the requirements than have his ship detained.

Now we have eight MOU's in different regions. But just having MOU's is not going to solve the problem. Exchange of information among all the MOU's will be far more beneficial in eradicating substandard ships, so as to restrict them from operating in any of the regions. If we take a look at other regions, we see that the USA introduced stringent port State control long before the MOU came into being. The lack of uniformity in the implementation of port State control has been a topic for discussion since the first port State control inspection began in the early 1980.

In the following chapters the author has discussed the role of the flag States, classification societies and others responsible for the safety of ships. In chapter 2 discussion has been made about the Indian Ocean Memorandum of Understanding (IOMOU). In Chapter 3 the role of the flag State has been discussed and Chapter 4 deals with the classification societies. In chapter 5 the author has reflected the need for harmonized regional procedures and a global MOU on port State control.

Chapter 2

Circumstances leading to Indian Ocean MOU

“There is no doubt in my mind that the emphasis should be on the implementation of existing standards rather than on the development of new measures. There is little point in piling more regulations on top of those, which are already in place but are being ignored, by some sections of the industry” (Mr. William A. O’ Neil).

2.1 Background

A prominent feature of current policy in the IMO is its aggressive emphasis on the implementation of international conventions (Payoyo). With a view to eradicating substandard ships, the Assembly of the IMO adopted in November, 1991 Resolution A.682 (17) “Regional Co-operation in the Control of Ships and Discharges” to propose the establishment of port State control regimes in the various regions of the world following the pattern adopted by the European region through the Paris Memorandum of Understanding in 1982 (Plaza, 1999_a).

The concept of having the IOMOU was mooted on the basis of a review of adequacy of the regions maritime safety infrastructure, as well as requirements in accordance with the I M O, carried out during the period August 1997 to September 1997. It was felt that a regional co-operation for the States on the Indian Ocean rim, would be the solution to control the plying of sub-standard ships in the region.

By having regional co-operation on port State control, ships can then be inspected and a reporting system can be introduced to inform the other coastal States within the region about the condition of inspected ships and to deter the owners from plying sub-standard ships, especially those which have been targeted by other MOU’S. The recent case of the tanker *Erika* that caused a severe oil spill on the

French coast should now be an example for all concerned, so that no substandard ships are allowed to operate. The case of tanker *Erika* will be discussed in more detail in later chapters.

A brief report on IOMOU. (Source: Secretariat, IOMOU)

Delegations from Australia, Bangladesh, Djibouti, Eritrea, Ethiopia, India, Kenya, Maldives, Mauritius, Mozambique, Myanmar, Oman, Seychelles, Singapore, South Africa, Sri Lanka, Tanzania and Yemen attended the first preparatory meeting on the developing of flag and port State capabilities in the Indian ocean rim. The meeting was held from 13th to 17th October, 1997, at Mumbai, India at the invitation of the Secretary General of the IMO, and following the generous offer of the Government of India, to host the meeting.

The second preparatory and signatory meeting was held between 1st and 5th June 1998, at Pretoria, South Africa, hosted by the Government of South Africa. A draft Memorandum was drawn at this meeting, which was subsequently finalized. In addition to the countries mentioned earlier, Sudan also participated in this meeting.

The MOU on port State control for the Indian Ocean, was signed, subject to acceptance, by the representatives of Djibouti, Eritrea, Ethiopia, India, Iran, Kenya, Maldives, Mauritius, Mozambique, Seychelles, South Africa, Sri Lanka, Sudan, Tanzania and Yemen.

The Memorandum was kept open for signature, at the headquarters of the Secretariat i.e. Goa, India, from 5th June 1998 to 22nd January 1999. During this period of time, the following countries signed the Memorandum of Understanding:

Australia	Sudan	Tanzania
India	Eritrea	South Africa

The Mauritius Administration acceded to the MOU on 15th October 1999, and the Sri Lanka Administration on 8th November. The other countries are yet to convey their acceptance or accession. From the above, it is clear; that this Memorandum of Understanding, which came into effect from 1st April 1999, is at its infancy as

compared to the other five MOU's, that are already in force and the seventh MOU, for West and Central Africa, has been recently signed.

2.2 Functioning of various members

Initially eighteen States had participated in the meetings, but later Singapore, Malaysia, Thailand and Philippines decided to keep away from the IOMOU as they had already joined Asia Pacific Memorandum of Understanding. At present only eight States are full-fledged members namely:

Australia	Sri Lank	India	Sudan
Mauritius	Tanzania	Eritrea	South Africa

The reasons for not acceding to the MOU may be mainly because of economic considerations. Eighteen States are signatory to the Memorandum, the majority of them do not have strong maritime administrations. As a result, port State control is at its infancy in most of the signatory member States. However, most of the States realizing the need for strong port State control have started appointing persons with seafaring background and training in port State control.

During the discussion with the Secretary of IOMOU, he informed that they are planning to have training for port State control officers, belonging to the member States. IOMOU is also developing a manual for the port State control officers.

By having their port State control officers trained, in the same way all member States will have a harmonized system of port State control through out the region. It is understood that even the MOU's are trying to have a harmonized approach in port State control inspection. Mutual cooperation and interaction between IOMOU and Tokyo MOU is existing in the same manner as is being done in Paris and Tokyo MOU. The advantage of this will be that right from the beginning the approach will be in a harmonized manner.

The second meeting of the IOMOU on port State control was held at Mauritius in the month of December 1999. Only seven member States attended the meeting, which is not very encouraging for the IOMOU, which has recently started functioning. The

Chairman of the IOMOU in his address during the second meeting also showed his disappointment at the lack of commitment by the member States. He further stated that he could only surmise that other more serious commitments have kept the representatives away or that a lack of funding precludes their attending this meeting.

No doubt, member States of IOMOU are not amongst the richest in the world, but the financial problem should not be a hindrance in implementing the port State control in the region. The whole concept of regional MOU's will not work if all member States do not participate in the functioning of the MOU.

However it is not the only MOU where member States may be facing financial problems as we see from the report of Secretary General of the maritime organization for West and Central Africa, citing an example of how dire the lack of funding has become, doubts have been raised whether the MOU on port State control, will take effect. Why? Because the member States are too poor to pay even their IMO dues, so the entire process could become effectively invalid ("West African Shipping-----").

The Secretariat of the IOMOU since the conclusion of the Second Preparatory meeting at Pretoria, was operational, on an interim basis from the Directorate General of Shipping (DGS), Mumbai, India. Secretariat and the Interim Information center started functioning from its own premises at Goa, India from 1st June 1999. At present the Secretariat operates on an interim basis and it has to move from interim to full in April 2001.

2.3 Jurisdiction

IMO has made a number of international conventions for the safety of life and pollution prevention at sea, and for improving the working and living conditions on board ships. Port State jurisdiction is largely exercised through port State control which is provided under major IMO Conventions such as SOLAS, MARPOL, STCW, Load Line, and also ILO Convention 147.

The blue print for port State control is contained in the United Nations Convention on the Law of the Sea (UNCLOS) in respect of Safety and Pollution. UNCLOS Part XII Articles 218, 226, are the main provisions and other articles are 217, 222, 223, 224, 225, 226, and 228. Article 25, paragraph 2, provides that the Coastal State has the right, in the case of ships proceeding to internal waters or a call at a port facility outside internal waters, to take the necessary measures to prevent any breach of the conditions to which admissions to internal water is subject.

Article 211 Paragraph 3, of the convention provides the basis for the establishment by a group of States of particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters (Report on UNCLOS to UN).

Article 218 deals with investigation and proceedings in respect of any discharge from the vessel outside the internal waters territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization. However Article 218 imposes some restriction on port State jurisdiction. It states that no proceedings shall be initiated in respect of a discharge violation in the internal waters, territorial sea or exclusive economic zone of another State unless requested by that State. States may undertake an investigation when a vessel is voluntarily within a port or at an offshore terminal of a State, where the evidence so warrants, and also institute proceedings if any discharge has taken place from the vessel.

Article 218 mainly deals with discharge violation, and port State jurisdiction is limited to that. Article 220 deals with the enforcement by the Coastal State and authorizes the port State to investigate proceedings in respect of violation of applicable laws and regulations by the foreign vessels, which are voluntarily within a port or offshore terminal.

“In the absence of a substantial relationship between the LOS convention, port State provisions and the MOU’s, port State jurisdiction to date has witnessed a greater development at the regional level, by means of the commitments undertaken by

States pursuant to the regional MOU's and in the case of European Community States, by reasons of the entry into force of the European Commission directive. In the future, such linkage between the LOS Convention and the MOU's may evolve, into a mutually beneficial relationship between the Regional and Global regime" (Keselji).

2.3.1 IMO Assembly Resolution pertaining to port State control

1. Resolution A. 321(IX), Procedure for the Control of ships Relating to SOLAS 60 and 1966 LL Convention adopted by IMO during its ninth session in 1975.
2. Resolution A. 390(X), Procedure for the Control of ships relating to the SOLAS 60 and LL1966 Conventions. This convention was adopted on 14th Nov.1977.
3. Resolution A. 391(X), Procedure for the Control of discharges relating to oil pollution, 1954 as amended in 1962and 1969, adopted during the tenth session on 14th Nov.77.
4. Resolution A. 466(XII), Procedure for the Control of Ships relating to the application. Provisions of the SOLAS and 1966 ILL conventions adopted during the 12th session on Nov.1981.
5. Resolution A. 481(XII), Principles of Safe Manning, adopted during the 12th session on Nov.1981. Resolution A. 542(XIII), Procedure for the Control of Ships and Discharges relating to the annex 1 of MARPOL 73/78 adopted during the 13th session on 17th Nov.1983 as a substitute to Resolution A. 392(X).
6. Resolution A. 542(XIII), Procedure for the Control of Ships and Discharges relating to the annex 1 of Marpol 73/78 adopted during the 13th session on 17th Nov.1983 as a substitute to Resolution A. 392(X).
7. Resolution A. 597(XV), Amendments to Resolution A. 466(XII) adopted during the 15th session on November 1987.
8. Resolution A. 682(17), Regional Co-operation in the control of ships and discharges.
9. Resolution A. 742(18), Procedure for the Control of Operational requirements related to the Safety of Ship and Pollution Prevention.
10. Resolution A. 787(19), Procedures for port States control adopted at the 19th session in 1995.

11. Resolution A. 882(21), Amendments to the procedures for the port State control, updating the 1995 resolution adopted at 21st assembly, in November 1999.
12. MSC/Cir.890- MEPC /Cir.354 on Interim guidelines for port State control related to the ISM Code.
13. MEPC 26(23), Procedure for the Control of Ships and discharge under Annex II of Marpol 73 /78.

2.3.2 Relevant IMO Conventions

The International Convention of Safety of life at Sea (SOLAS)

The earliest international convention on safety of life at sea was drafted in 1929 before IMO came into existence, and has since been revised in 1948, 1960 and 1974. SOLAS 1974 was also amended in 1978 by a protocol and entered into force from May 1981.

Regulation 19, of Chapter1, incorporates the right and obligation of port States to verify that certificates on board are valid and that they are issued under provision. Regulation 4 of chapter XI deals with operational requirements in respect of the safety of ships, when there are clear grounds for believing that the master or crews are not familiar with essential shipboard procedures relating to the safety of ships.

Article 1(3) of the 1988 Protocol relating to the SOLAS deals with ships of non-parties to the convention and the Protocol. It states that the parties to the present Protocol shall apply the requirements of the Convention and the present Protocol as may be necessary to ensure that no more favorable treatment is given to ships of non-parties to the convention. That is, port State control is not only limited to ships flying the flag of contracting parties.

The International Convention on Standard of Training Certificate and Watch keeping for Seafarers (STCW)

Seafarers play an important role in the growth of shipping and are as important as an ocean is for the ship to sail. Well, just the seafarer in this competitive world is not enough, they have to be trained and competent for the duties they are assigned on board the vessel.

The STCW convention was the first to establish basic requirements on training, certification and watch keeping for seafarers on an international level. Article X, Regulation I/4; STCW Code sections A-I/4, and Section B-I/4 incorporates the rights and obligation for the control. It has been confirmed that more than 80% of the accidents takes place due to human error.

International Convention for the Prevention of Pollution from ships

MARPOL 73/78; Article 5(2) and (3), Article 6(2), (3), (4) and (5), provides the right and obligation for the port States to carry out inspections. It also contains provisions concerning inspections of ships at ports to verify whether they have discharged any harmful substances in contravention of the provisions of the Convention.

Annex I, Regulation 8 A; Annex II, Regulation 15; Annex III, Regulation 8; Annex V, Regulation 8 deals with the control. Details are given in each regulation as to the requirement for control. For example, Regulation 8 of Annex II requires Parties to MARPOL 73/78 to appoint or authorize surveyors for the purpose of implementing the regulation.

International Convention on Load Line

Article 21, is basically to ensure that a ship is not loaded beyond the limits allowed by the certificate, and that the Load Line corresponds with the certificate. It also contains provision to confirm that no alterations are made after the issue of the certificate.

International Convention on Tonnage measurement

Article 12 of International convention on Tonnage measurement of ships, 1969 (Tonnage 69) contains provisions for the verification of the Tonnage certificate. Although the convention is not a safety convention as such, but it is important to determine which conventions are applicable to a specific ship. Assembly Resolution A.787 (19) procedures for the port State control provides additional guidelines for the port State control under the tonnage convention.

ILO 147

Ratifying States to exercise control on foreign ships at its ports, even if the flag State has not ratified and shall relate to Minimum Age, Medical Examination, Accommodation of Crew, Food and Catering, Officers Competency Certificates and safety on board ships.

2.4 Present status of member States of IOMOU

The committee during their first meeting of IOMOU had agreed to the work program for the first year of operation, as follows:

- preparation of a manual for port State control officers;
- publishing of details of training courses for port State control officers;
- approaching the Tokyo MOU for assistance with regard to the IT system;
- publishing statistics on port State control inspections, on a monthly basis;
- publishing of a quarterly newsletter, informing members of the latest developments;
- publishing an annual report after the second Committee meeting.

The progress made is enumerated below.

The Secretariat has put up a proposal for the signatory and member States of IOMOU to nominate port State control officers for training, but except for Tanzania, no other Authorities responded.

How can we expect a MOU to achieve its goal if all the member States do not participate in all the related activities. Is it just an obligation on part of a State to be a member of one of the MOU on port State control? Or is it that by just being a member, all obligations towards eradicating substandard ships are over? These are the matters, which require attention of all concerned, if we have to achieve our goal of eradicating substandard ships to operate in the Ocean.

For publishing of statistics on port State control on a monthly basis, all the member States are not forwarding the reports to the Secretariat, except for AMSA, SAMSA, India and Sudan. As we observe from the above table.

Table 2A- Details of port State control inspection by IOMOU Members.

Period of inspection: June 1999 to October 1999.

Name of Administration	No. of Ships inspected	No. of Ships Detained	No. of Deficiencies for detained ships
Australian Maritime Safety Authority	896	48	96
South African Maritime Authority	197	8	31
Director General of Shipping (India)	117	67	920
Maritime Administration Directorate (Sudan)	Not available	14	16

Source: Secretariat –IOMOU

As seen from the above statistics which is only for a period of five months, the number of ships detained are 137 out of the total 1210 inspected by different Administrations, which comes to 11%. Definitely this figure will increase, when the member States are better equipped with trained officers and other facilities. These ships would have been operating if there were no port State control or rather in much worse condition, as there was no fear of being detained, as these deficiencies were when the operator was aware that port State control may inspect the vessel.

Reasons for the above may be either that the shipowner or operator is taking a calculated risk, like a gamble. If he escapes he has made his money or he feels even if the vessel is detained, he has made his voyage and at the same time the money.

From the above data even though it is only for a very short period it appears that the vessels calling at some ports are either complying with all regulations and are in good condition or the port State control inspection standard is not the same in all the regions, going by the figure of number of ships detained and deficiencies observed by those authorities.

The author is not concluding by the above figure that the number of ships detained or deficiencies observed by the Authorities should be taken as the parameter of good port State inspection quality.

As stated earlier the IOMOU secretariat has prepared the draft manual and it was submitted during the second meeting of the committee. After some debate it was agreed that a task team be established, who will finalize the manual, which will be submitted for approval during the third committee meeting. The task team would be led by the Secretariat and would comprise a representative from Australia, Iran, Mauritius and South Africa.

It was also agreed by the representatives of the member States to adopt the style of manual as of the Paris MOU, they having an experience of 15 years. This manual will be an effective tool for the port State control officers and will be guidance for them, regarding the inspection and to have a harmonized system of conducting port State control in the region.

The IOMOU has been granted a observer status in the Tokyo MOU, which will help in having a closer relation ship between the two MOU'S. The IOMOU is still in the infancy stage; the information system and web site is still to be installed, and groundwork for the same is being done, to have it at the earliest.

Details of the IMO conventions ratified by the member States is listed in **Annex-1**. Some of the States have not even ratified the important conventions dealing with the safety and environment protection. For such States to implement the same on other flagships visiting their ports, will not be possible.

The member States should first ensure that all the conventions especially required for the control of vessels, are ratified and implemented in the national laws. They should also take appropriate actions against ships flying its flag that fail to comply with the applicable requirements.

Chapter 3

Present Status of port State control in India

"Implementation, according to the dictionary, means putting something into effect. Making sure that it gets done. And as far as IMO'S twin targets of Safer shipping and Cleaner oceans are concerned, implementation is the key to success. It is a responsibility that no one in shipping can evade"(Mr. William A. O' Neil).

3.1 Duties of Flag States

A convention before it becomes binding upon States, which have ratified, has to be formally accepted by individual States. The adoption of a convention is only the first step of a long process before the convention comes into force.

“If the State so fails to implement the convention, it is nevertheless subject to it vis a vis other State parties, but it cannot enforce the convention against them, unless that convention becomes part of the law of the land by whatever legal process is applicable in that State’s jurisdiction. The implementation of an international convention to which a State has become a party is therefore an essential step without which the State Party cannot benefit insofar as the application of that law within its jurisdiction is concerned” (Mukherjee).

Most of the States take a long time before the convention is implemented. As often-national laws have to be enacted or changed to enforce the provision of the convention, and in some cases, special facilities may have to be provided. For the shipowner sometimes it involves huge amounts of money for the installation of new equipment such as for example GMDSS. It is a time consuming process. Concerned parties who are to be affected by the change like shipowners, shipbuilders and others are to be informed, and sufficient time is to be given to them to act.

It is the duty of the flag State to implement the new regulations after they are ratified and accepted and legislated in their national laws. Without the co-operation of the flag States, it is next to impossible to implement the IMO Conventions. Thus emerges the vital need for the assumption of regulatory responsibilities by the flag States.

“The need for the shipping industry to learn from its mistakes has always been recognized by IMO. The first convention to be adopted by IMO after it came into being in 1959 was the 1960 version of SOLAS” (O’ Neil 1999_a).

Substandard ships are not due to the lack of international standards, but due to the lack of enforcement of existing standard. In signing major IMO conventions, a flag State not only takes the responsibility for enforcing those aboard its ships, but also it gets the authority to inspect the foreign vessels visiting its ports.

As stated by United Kingdom’s Minister of Shipping, “The IMO, the European Commission and other responsible Administration do not believe that regulations offers the best prospect of eliminating substandard ships”. Basically she said, there are sufficient regulations but the challenge is to ensure the uniform application of them uniformly (“Flag State responsibility-----“).

Regulation 21 of SOLAS Chapter 1 states "Each Administration undertakes to conduct an investigation of any casualty occurring to any of its ships subject to the provision of the present Convention when it judges that such an investigation may assist in determining what changes in the present regulations might be desirable".

It is the duty of the flag States to conduct an enquiry and inform the cause of the causalities to the IMO, so that if any regulations or amendments are to be made in existing ones or any new regulations or amendments are to be made, action can be initiated to avoid such recurrence. But in reality not many flag States inform the IMO, about the findings of the investigation.

The findings of the fire on board the *Scandinavian Star* in 1990, revealed many factors, among which not all were covered by the regulations, but which were to a large extent connected to qualifications, experience and attitudes towards the operation of passenger ships. The official investigation carried out after the disaster concluded that the following factors played a significant role (Christensen).

- the master had not taken the necessary action to train the crew in fire fighting and evacuation, and the ship was not properly prepared for the intended service;
- the qualification of the crew with regard to safety were low;
- communication between the crew members was hindered by the lack of a common language, and the sound level of the alarms and loudspeakers was low and not able to warn the passengers of any danger;
- the arrangements of staircases and the corridors, where the cabins for passengers were situated, was complicated, making it difficult for the passengers to find their way around the ship;
- the visual signposts were difficult to understand and located in non visual positions, previous inspection of the ship failed to find certain faults; and
- the fire protection of the ship was not satisfactory, even if the present regulations were complied with.

What we learn from the above report, is that having regulations is not sufficient. The crew has to act at the time of emergencies, for which continuous training is required. The flag State should ensure that all crews are well trained to act during emergencies. Now through the ISM Code a lot can be achieved, if done in a proper way and with a good intention. If only paper work is done to comply with the ISM Code and to satisfy the Auditors, then the whole concept of ISM will be lost.

3.2 Flag State implementation and port State control

“IMO’s main objective is to have an effective, safe and healthy maritime transport system. IMO certainly can have no objection to shipowners and shipping companies making money and saving money-unless those savings are made at the expense of safety or of the environment. If that happens then IMO is very concerned. Safety

must be considered as an investment rather than as a cost factor to the industry, because, undoubtedly, safety pays” (Plaza, 1999_a).

For identifying the measures necessary to ensure effective and consistent global implementation of IMO instruments, a new IMO Sub-Committee on Flag State Implementation (FSI) was established in 1992.

The sub-committee was assigned the following terms of reference:

- to identify the range of the flag State obligations emanating from the IMO treaty instruments;
- to assess the current level of implementation of IMO instruments by flag States;
- to identify those areas where flag States have difficulty in fully implementing IMO instruments;
- to assess problems in the involvement of the States party to the IMO instruments in their capacity as port States, Coastal States and countries training and certifying officers and crews;
- to identify the reasons for the difficulties identified in the above two;
- to make proposals to assist parties;
- from its inception the FSI Sub-Committee dealt with a number of issues related to port States responsibilities, resulting in the development of various guidelines and recommendations, either adopted as resolutions or circulated by means of MSC/MEPC or FSI circulars(Plaza ,1999_a).

Some of the important / and /or recommended /instruments developed by the Sub-Committee are listed below:

- guidelines for the authorization of organization acting on behalf of the Administration;
- model agreement for the authorization of organization acting on behalf of the Administration;
- guidelines to assist flag States in the implementation of IMO instruments,
- specifications for the survey and certification of functions of recognized organizations;
- guidelines on the implementation of the ISM code by Administrations. Self-assessment of flag State performance,

- criteria for the self-assessment of flag state performance.

FSI sub-committee has laid down clear guidelines for various activities being carried out by them. If it is followed the flag States should not have any difficulties in implementing the conventions. But as seen the level of enforcement varies greatly from Administration to Administration, which is one of the reason for having regional MOU's for port State control. Work of the FSI sub-committee on port State control will be discussed in later Chapters.

It is sometimes argued that flag State control is being superseded by port State control. Indeed it is sometimes argued that if the flag States won't do the job the port States must (Douglas).

But in reality it is confusing, as to how a flag State can carry out port State control when the ships flying its flag are not up to the standard and being detained. How can that flag State be relied on for the standard of inspection as port State.

As we see from the past maritime disasters starting from the *Titanic* to the *Exxon Valdez*, new regulations were made to avoid recurrence of such casualties. In 1967 the tanker *Torrey Canyon* ran aground off the West Coast of England, resulting in the world's first major oil pollution. New conventions came after the disaster, as there was a complete failure of measures to contain the spill and to clean up the pollution that resulted and the amount of cost involved.

The most important initiatives by States and the IMO have been prompted by disasters. The *Torrey Canyon* led to several conventions dealing with legal issues, including liability and compensations. The most important convention was the Prevention of Pollution from Ships (MARPOL) 1973. Later on a series of tanker accidents off the coast of the United States led to the adoption of the 1978 Protocol to MARPOL and to SOLAS.

When a disaster occurs, the shock is considerable and the public demands an instant response. The Secretary General of IMO, Mr. William A. O' Neil, said in a

speech to the general council of the Baltic and the International Council in May 1999, "public opinion forces governments into action and it is impossible to avoid this reaction. How could the British or Swedish authorities hope to convince the public that ro-ro's were safe when the Herald of Free Enterprise and Estonia had just sunk? How could the United States tell people that tankers were good for them when their television screens were filled with images of the *Exxon Valdez* surrounded by dead sea birds covered with oil"(O' Neil, 1999_a).

The most recent case of the last century, the tanker '*Erika*' is an example. Post mortem of the case is still going on, with each concerned party blaming the other.

A statement from the chief executive of ABS is reproduced, which states as follows: "When a vessel such as *Erika* is able to operate, it is a result of a cumulative failure of the entire system. The disastrous consequences of that casualty rest with all those who participated. If any one of those participants had raised objection to the continued operation of the *Erika*, the vessel would have ended up in the scrap yard where it obviously belonged" ("ABS proposes tougher--- ")

From the above statement it is quite clear, that somewhere in the line of operation, there was a weak link, which allowed the continued operation of ships like *Erika*. Even the port State control failed to stop the vessel from operation.

The compliance of IMO various Conventions and Protocols depends on the implementation It is the responsibility of the flag States to legislate the various treaties and conventions to which they are party. Even most of the IMO conventions are not ratified by the member States.

"Ratification involves both the privileges and obligation but before ratifying, a country must be in a position to meet the requirements of the Convention as included in its Articles and Regulations" (Cowley_a). In practice it does not happen. It takes years by some States to legislate them, and become effective. The main purpose of the convention is lost if they are not implemented effectively. States who have not

legislated cannot enforce them on their flags and foreign flags visiting their ports. In other words they are not able to carry out port State control.

IMO only sets the standards, providing a basis for legislation, but cannot execute legally binding forces of the convention on any party States. IMO has relied on the flag Administrations who are members to provide domestic legislation and oversight of the established requirements for vessels flying their flags as part of their duties. Member States must incorporate the provisions of a convention into laws and regulations. It is their role to play in implementing IMO standards and contribution in eradicating substandard ships from their region.

Many States are not well equipped, they lack the necessary domestic legislation to enforce the treaty. There are no trained surveyors to carry out inspections or facilities to enable compliance with the regulations. In the opinion of the author the lack of trained manpower and funds are the main reasons for not having an established Maritime Administration in some of the States.

Flag States may delegate to classification societies, to carry out necessary inspections and issuance of the statutory certificates, but as per SOLAS 74 as amended, the responsibility lies with the flag States. Once the laws and regulations are established, they must be enforced, and this is up to the individual flag States for enforcing the same. Flag States and classification societies are expected to meet certain basic criteria's concerning their ability and commitment to comply with the regulations in various conventions.

The present conventions, SOLAS, MARPOL, Load Line, STCW and others are the accepted international minimum standards for maritime safety and pollution prevention. In all these agreements, responsibilities for ships meeting these standards lie primarily with the flag Administration for instance as stated in SOLAS Article 1. In reality this responsibility is shared with the owners, classification societies, charterers, and others all having a role to play.

For safe manning of the ships, the flag States are to comply with the following regulations.

1. The flag State is primarily responsible for setting and monitoring of safety standards, as per IMO SOLAS Convention (1974) Chapter V, Regulation 13:

- the contracting governments undertake, each for its national ships, to maintain or, if it is necessary, to adopt measures for the purpose of ensuring that, from the point of view of safety of life at sea, all ships will be sufficiently and efficiently manned;
- every ship to which Chapter 1 of this convention applies shall be provided with an appropriate Safe manning document or equivalent, issued by the Administration as evidence of the minimum safe manning considered necessary to comply with, the provision of paragraph 'a' of regulation 13.

2. United Nations Convention on the Law of the Sea 1982: Article 94(3)(b) states that every State shall take measures for ships flying its flag as are necessary to ensure safety at sea with regard, to the manning of ships, to labour conditions and the training of crews, taking into account the applicable international instruments.

3. ILO Merchant Shipping (Minimum Standard) Convention (1976): No.147, Article 2 (e) states that each member which ratifies this convention undertakes to ensure that seafarers employed on ships registered in its territory are properly qualified or trained for the duties for which they are engaged.

Further the role of the flag State is clearly defined, it states that flag States should have laws or regulations for:

- safety standards, including standards for competency, hours of work and manning;
- sound security measures;
- condition of employment and living arrangements.

The flag State is to ensure safety on board ships registered in its territory, and also ensure adequate procedures for engagement of seafarers and investigation of complaints:

- on ships registered in its territory,
- by seafarers of its nationality employed on foreign ships.

The flag States have the ultimate responsibility for ensuring:

- living and working condition of seafarers.
- safe manning on ships registered with the flag;
- competence of its seafarers;

For achieving the above, the following are essential pre-requisites:

- an adequate and competent Maritime Safety Administration ;
- international regulations included in the national legislation.

Many flag States lack the resources and /or expertise to fulfil the obligations, and therefore delegate survey and inspection responsibilities to classification societies or other organizations. Consequently some ships never see a flag State surveyor on board. With such a scenario, in various maritime circles, one gets an impression that port State control is the overall mechanism for ship safety and pollution prevention.

3.3 Genuine link concept in the 1982 UNCLOS

Registration is the administrative mechanism by which a State confers its nationality upon a ship. The genuine link concept is referred to in article 91 (1) of UNCLOS in the following words, "Every State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the rights to fly its flag. Ships have the nationality of the State of whose flag they are entitled to fly. There must exist a genuine link between the State and the ship".

Article 94 of UNCLOS emphasizes that every State, apart from taking measures for ensuring safety at sea for ships flying its flag with respect to construction, equipment and seaworthiness must also maintain a register of ships containing the names and particulars of ships flying its flag.

Article 211(2) of UNCLOS provides that States shall adopt laws and regulation for pollution prevention of the marine environment from vessels flying their flag or of their registry.

No longer, in most cases, does the nationality of a ship's owner have anything to do with the flag the ship flies. Most of the ocean going vessels owned by Americans is registered abroad, in open registries, in places like Panama and Liberia (Morris).

Sometimes it even becomes difficult to trace the owner of a ship, in the case of *Erika*, a French commission of inquiry into the sinking of the vessel has condemned as "unacceptable" the opaqueness of the ownership of the tanker, admitting that it had so far been unable to trace the ultimate owners. (Spurrier, 2000_a).

The real owner, who is behind the scene, sometimes even goes scot-free after the incident without being punished. It becomes difficult to fix responsibilities and claim the compensation if the same is insufficient to meet the claim from the Oil Pollution Compensation fund.

Numerous loop holes and weak links surface only after the major accident takes place, and the concerned authority starts to react, so as to avoid more incidents of the same nature. But the scrupulous operators find ways to keep their substandard ships afloat. After the *Erika* incident the French transport minister stated that the practice of chartering oil tankers under flags of convenience should be outlawed. (Spurrier,2000_b). Concerned parties responsible for the safety of the vessel viz. flag States, port States, IACS and others, are now tightening all the loose ends.

Intertanko has launched an initiative of one on one meeting with flag States to stress the need for improving quality. The exercise could in turn, see the creation of a "preferred flag list" as a criterion for Intertanko membership (Joshi).

3.4 Open Registries

"Flag of convenience" has been designated in different terms signifying the attitude of different national and social groups to what is thought to be the prevailing characteristics of that system. They have been called at times " flags of necessity, free flags, flags of opportunities, easy registry, safe harbours, etc. (Kasoulides).

As the Rochdale report said in 1970, " it is not easy to provide a simple definition of flag of convenience, which effectively encompasses their significance and characteristics" The report defined such flags as follows:

- the country of registry allows ownership and/or control of its merchant vessels by non-citizens;
- access to the registry is easy; a ship may usually be registered at a consulate;
- equally important, transfer from the registry at the owner's option is not restricted;
- taxes on the income from the ships are not levied locally, or are very low. A registry fee and an annual fee, based on tonnage, are normally the only charges made;
- the country of registry has small power with no national requirements under any foreseeable circumstances for all the shipping registered, but receipts from very small charges on a large tonnage may however produce a substantial effect on its national income and balance of payment,
- manning of ship by non-nationals is freely permitted;
- the country of registry has neither the power nor the Administration machinery to impose any government or international regulation, nor has it the inclination to control the shipping companies themselves (Kasoulides).

Open registries or flags of convenience account for almost 53 percent of the world fleet by total dead weight tonnage for ships of 1000 gt. and over or a little over 40 percent of the world fleet by number of ships. Of this share, the five 'majors' Panama, Liberia, Malta, Bahamas and Cyprus account for about 83 percent (Hawkins). Flags that dominate world shipping is detailed in **Annex 2**, among top ten are major open registries.

What we observe from the table 3 A below is that most of the developed countries shipowners are using flags of convenience for their ships. The reasons for this may be as discussed earlier. At the same time we refer to the flags of convenience not maintaining their standards? It is the shipowner who is responsible for maintaining

his ship and some shipowners who only believe in trading substandard ships, make use of these registries

Table 3 A: Top 10 users of open registries in 1999 (ships of 1000 gt and over)

Dwt rank	Country of Domicile	Percentage Share (DWT)				
		Panama	Liberia	Bahamas	Other Major Flags	Other Flags
1	Greece	19.2	13.5	8.5	28.0 (Cyprus)	16.9
2	Japan	74.5	8.6	1.2	0.8 (Vanuatu)	14.9
3	US	7.1	33.6	17.0	26.8 (Marshall Is)	15.5
4	HK (SAR)	60.7	18.5	1.1	1.8 (Marshall Is)	17.9
5	Norway	5.9	28.7	32.0	17.9 (Malta)	15.5
6	Sweden	0.6	35.2	18.0	5.0 (Bermuda)	41.2
7	Korea	88.9	8.2	-	0.6 (St Vincent)	2.3
8	Germany	3.2	43.1	0.2	18.5 (Cyprus)	35.0
9	China	47.2	29.6	-	5.6 (St Vincent)	17.6
10	UK	5.1	6.0	14.2	30.0 (Antigua and Barbuda)	44.7

Source: LMIS, 1999

Flags of convenience, especially those that are not serious in complying with the IMO conventions and without proper Administrations should not be encouraged by shipowners who believe in standard ships. Then there will be fewer substandard ships in the oceans

But slowly things are changing as the net of port State control is getting tighter. The Maritime Administration of Honduras cancelled the registration of around 750 vessels deemed to be substandard in an effort to upgrade the ship register. The exercise was done to improve its image from one that tends to attract poor quality ships. As per Dr Rivera, Director General, operation of open registers will be increasingly restricted and regulatory pressures will reduce the number of such flags. He added that the revenue generated from the fleet of 3,400 ships registered in the country remained important (Grey).

If the attitude of the flag State is to make revenue out of registries, how can we achieve quality shipping and safety of the seafarers and the environment? But days are not far off when quality shipping will be the key word for a successful shipowner.

As we see from the report, regarding a concept being born for creating a Global Network of Quality shipping registers, which saw the first light of day at the Mare Forum, 99 conference in Amsterdam. Mr. Nieuwport stated that “shipping is being exposed to a two phased approach to quality and safety. One is punishment based, with liability being handed on to the shipowner and this system being enforced by port State control. Numerous rules and regulations, both national and international in origin govern the other approach”. He further stated that “there’s a scope for quality registers and quality shipping companies to discuss how to create a new basis in the market, a minimum foundation for safety and protection of the environment. Ships and owners who qualify for these standards could be rewarded” (Insight).

On the other hand we see a report from the shipowners point of view. “The shipping industry will suffer an increasingly tumultuous ride in the next century as growing regulatory pressure and charter consolidation rocks the business”. This was the resounding conclusion of a congregation of industry experts at the City of London club (Smith).

No doubt the burden of the new regulations falls on the shipowner, in respect of cost as well as human resource. Most of the shipping companies had to struggle till the end to comply with the first phase of the ISM Code. Not all had experienced staff to implement it, especially the smaller companies who had to depend on consultants.

In the view of the author, the main reasons for the owners’ registering their ships in safe havens is to avoid the strict imposition of regulations and taxes. Some flags of convenience may not even have any expertise in Maritime Administration. The operators find them much easy to deal with to get dispensations, and exemptions, than they would have with established Administrations.

Panama became a flag State for hire in 1925 and has promoted itself since then. It makes no secret of its eagerness to add ships to its already huge roster. Regulations are easy; a shipowner can complete its necessary paperwork in a couple of days, even hours, at one of its maritime consulates around the world (Morris).

How far the above statement is true, the author is not in a situation to comment on, but, if the intention of the flag State is to generate revenue form registration of the ships at the cost of compromising the safety standard, this should not be encouraged at any cost. To inspect such vessels registered by the open registries was also one of the causes for the birth of port State control so as to check substandard ships from plying the seas.

From table 3B below we observe that the number of ship losses has been on a decreasing trend except in 1991. Strict enforcement of regulations will definitely bring quality in shipping, but how long it will take to eradicate sub-standard ships is to be seen? The attitude of shipowners operating these ships like *Erika* has to be changed.

TABLE 3B: Total reported losses, 1979-98 (ships of 500 gt and over)

Year	Annual Number of Ship Losses	Monthly Number of Ship Losses	Total gt Lost (000)	Loss Ratio (as % of Total gt)
1979	280	23.3	2,282	0.20
1980	229	19.0	1,785	0.33
1981	249	20.7	1,711	0.41
1982	236	19.6	1,460	0.25
1983	210	17.5	1,352	0.15
1984	214	17.8	1,283	0.29
1985	188	15.6	1,282	0.32
1986	156	13.0	1,207	0.31
1987	139	11.5	1,179	0.30
1988	147	12.2	776	0.20
1989	156	13.0	1,078	0.27
1990	147	12.2	1,382	0.33
1991	173	14.4	1,752	0.41
1992	134	11.1	1,097	0.25
1993	121	10.0	652	0.15
1994	122	10.1	1,421	0.31
1995	114	9.5	767	0.17
1996	113	9.4	701	0.15
1997	89	7.4	739	0.15
1998	80	6.6	519	0.10

Source: ILU Casualty Statistics, 1999; Lloyd's Register World Casualty Statistics, 1999

Almost everybody agrees that substandard ships and their owners and operators must not be allowed to continue in operation. It is those ships, which are targeted to try to improve maritime safety, save lives and prevent pollution of the seas.

Port State control has produced results with substandard ships being detained by various port State authorities until they meet international regulations. Flag States that consistently fail to maintain internationally agreed minimum standards are identified by effective port State control. It does not drive out these flag States nor get rid of substandard vessels, these substandard ships are driven to the other areas of the world where States are unable to carry out port State control due to various reasons.

In order to get rid of all the substandard ships, what is required is interaction between all regional MOU'S, exchange of information between them and a common data base, to keep track of all the vessels moving from one region to the other.

3.5 Port State control in India

Port State control inspection was carried out if there were any complaints of unseaworthiness of the ship or its equipment, by the crew or any other interested party before 1990. So we can say that port State control existed in India but mostly on complaint basis. Nowadays it is mandatory for a port State control officer to carry out certain numbers of inspections every month.

A brief report on the development of port State control in India.

Due to the increase of workload resulting from amendments to various conventions and introduction of new conventions, and limited number of surveyors not commensurate with the growth in tonnage, port State control was not getting much attention as flag State was fairly active on flag State implementation. Now port State control has been taken up seriously, and much more is to be done, to reach the target and to have an effective system to cover all the ports.

Most of the statutory work has been delegated to the leading classification societies so that more time can be devoted to port State control so as to achieve the minimum

target. Inspections of machinery and equipment are no more carried out by the Administration surveyors. The surveyors of the Administration are still carrying out inspections for issuance of Safety equipment certificate. General inspections are also carried out during that time. If the ship is at foreign port the classification society surveyors carry out the inspection for safety equipment.

The status of Indian Shipping in the international scene during 1992 was not very encouraging. Under the Paris MOU India featured first in the 21 States selected for priority inspection Indian ships detention percentage was 27.87 % as compared to the world's average of 5.62%. Appropriate measures were immediately introduced by the Administration to improve the status of Indian shipping. Detained ship history was probed. Deficiencies observed on ships were analyzed on quarterly and annual basis and reports were circulated amongst shipowners and surveyors in field offices. Meetings were held with the shipowners and classification societies whenever necessary and fresh guidelines were issued to the Administration surveyors.

It was also observed that majority of the vessels detained were bulk carriers and vessels on cross trade. It was not possible for Administration Surveyors to inspect these vessels as they rarely called into Indian ports and conditions of the vessels were not known. Renewal of statutory certificates for the vessels on cross trade were carried out by classification societies on behalf of the Administration. The trend of deficiencies observed on board Indian flag vessels were similar to the trend world over and detentions were fairly on genuine grounds. The trend of MOU'S had just started, as such, standard of inspections were not uniform the world over and in many States the port State control officers were not adequately qualified or trained.

Measures taken by the Administration did bring some desired effect in the standard of vessels and the percentage of detention dropped as follows;

- Detention under Paris MOU steadily declined to 3.5% in the Year 1996.
- India is no longer on the priority list of Paris MOU.
- Under US Coast Guard Indian vessels detention % was only 0.26% over the average detention % in 1996 (DGS).

Table 3C: Details of Indian Vessels Detained by Various port State control Authorities

Year	Total vessels detained	Paris MOU	Tokyo MOU	USCG	Others
1994	24	17	4	3	-
1995	21	8	8	5	-
1996	18	2	10	6	-
1997	16	7	3	4	2
1998	9	1	6	1	1
1999	19	11	4	3	1

Source: DGS

The reports received from the Paris MOU for 1997 were reflecting more on operational deficiencies. This was brought to the notice of the masters of the ships and the Administration also started interacting with senior officers of the ships besides the shipowners.

More attention was paid to port State control as the effect of different MOU's on port State control on the Indian ports was felt. The number of substandard ships calling at Indian ports increased, as it was difficult for such ships to operate in the other regions due to effective port State control regime.

Table 3D: Port State and Flag State Inspections Details

Year	Flag State Inspections	Port State Inspection		
		Ships Inspected	Ships found deficient	Ships Detained
1993	73	16	6	Nil
1994	107	56	28	Nil
1995	164	182	78	42
1996	171	178	136	75
1997	194	321	172	120
1998	235	545	236	183
1999	102	347	204	158

Source: D.G. Shipping.

As observed from table 3D above, the total number of foreign flag vessels inspected were 347 and the total number detained 158, which is around 45% of the total number of inspections carried out. If there was no port State control, these substandard vessels would have been operating with deficiencies; owners would not have bothered to rectify them.

Hopefully with the Indian Ocean MOU in place the percentage may increase. The Administration is taking steps to increase the number of qualified and trained surveyors to increase port State inspection to at least 15%.

Table 3E: Flag of the vessels that had more numbers of detentions is listed:

Flag	No. vessels inspected	No. of vessels with deficiencies	No. of vessels detained	% of detention
Bahamas	4	4	2	50
Belize	3	3	3	100
Cyprus	16	16	7	45
Honduras	2	2	1	50
Liberia	5	5	3	60
Malta	12	12	6	50
Panama	30		6	20
St. Vincent	40	40	27	67.5

Source: DGS

Apart from the above flags, ships of different flags were found deficient but their percentage was much less than the flags detailed in the above table.

According to a news item in the UK P&I Club bulletin, authorities in Mumbai are being very strict regarding substandard ships and taking their responsibilities for implementation of port State control very seriously (UK P&I Club).

India has a vast coastline, with major ports located on the East and West Coast. There are still some ports where Administration does not have a local office and the surveyor has to travel a long distance to cover such ports. At such locations port State control is still based on complaints. For instance the traffic in Gujarat State has

increased tremendously, new ports have developed, tankers traffic has increased due to new oil refineries. There are about 7 minor ports in the region, which require more attention by port State control.

Being one of the oldest maritime States in the Indian Ocean India will have to play a major role in eradicating substandard ships in the region. At the same time India have to strengthen its flag State regime so as to maintain the requisite level of standard on their ships.

India has ratified most of the major Conventions of IMO, as detailed in **Annex 3**.and also of ILO. Most of the statutory work has been delegated to seven international classification societies apart from the Indian register of shipping. The role of classification society is very important in maintaining the standard of the ships. It shall be discussed in the next chapter.

Chapter 4

Relevant IMO Conventions and role of classification societies in port State control

"I would like to stress once again that we have already achieved a great deal. We can do much more in the future and we can do it by concentrating not on new conventions, codes and regulations but on people. The ISM Code will continue to make headway during the next few years, bringing benefits even to those who doubted its value. The Changes made in the 1978 training Convention will greatly improve seafarer standards and assure that they are highly trained professionals who possess the skills necessary to operate ships safely"
(William A O'Neil)

4.1 Origin of classification society

The origin of ship classification society can be traced back to 1760 as a body to assess ships by classifying them in several grades:

- giving cargo owners information on the conditions of these ships;
- enabling them to determine if a specific ship is strong enough to carry their cargoes, and, at the same time;
- giving underwriters important information enabling them to evaluate whether a particular ship is eligible to be insured (Mitsuo).

Initially the role of the classification society was limited to the evaluation of the condition of the ships as a third party. Later due to the development with more modernized ships designed and constructed the role of the classification society also changed. During 1882, a concept of freeboard of ships was established and they were involved in assigning the freeboard to the ships. The classification societies were recognized by the respective flag State as freeboard assigning authorities once the requirements of freeboard became mandatory and part of national maritime laws.

The International Regulations for the SOLAS and the International Regulations on

Load Line were agreed upon in 1929 and in 1930 respectively which brought more changes in the role of classification societies. Later the former regulation developed into the International Convention for the SOLAS 1960 adopted at IMCO, which required a Safety Construction certificate to be carried on board by the ships engaged in international voyages.

More authorizations were granted to the classification society by the Administration for issuance of statutory certificates, especially by those who had no established system to survey and issue certificates. That was the beginning of the classification society playing a major role, and then their activities expanded with each new set of regulations like MARPOL etc., the latest being the ISM code.

No doubt classification societies have the expertise as their rules are developed and updated on the experience gained from the ships they survey. It is an ongoing process, which most of the national Administrations lack. The objective of this chapter is not to compare the role of classification society and the Administration; the author only wants to project the growth and importance of classification society.

Along with the growth, there are bound to be some drawbacks. More classification societies entered into the lucrative business of classification, which resulted in compromising safety standards. To avoid complying with all the regulations some owners were looking for such classification societies.

To help such owners, there may be some classification societies to oblige them, but definitely with their share, in a competitive market. There are quite a number of parties involved in a substandard ship to sail, it is not only the shipowner.

If from the very beginning, the surveyors of the classification society are clear in their minds that they are responsible for the seafarers life, the property and the environment, as they are the one who is certifying the seaworthiness of the ship, I am sure the numbers of such substandard ships will be reduced No classification society should issue certificates to such substandard vessels. But in reality they do!

The classification surveyors board the vessel at the request of the owner for a particular inspection. In case he happens to observe something wrong in another area onboard, he is not obliged to comment on that. Most of the time they also do not report matters like that to the Administration, as such steps by the classification society will not be favoured by the owner.

When most of the Statutory work is delegated to the classification societies by the Administration, it is their responsibility to make sure that their surveyors are complying with all instructions of the society and the national maritime Administration, prior recommending for the issuance of the certificate.

4.2 IACS commitment

During a first conference of International classification societies way back in 1939, it was agreed by the representatives of the of the American Bureau of Shipping (ABS), Bureau Veritas (BV), Det Norske Veritas (DN), Germanischer Lloyds (GL), Lloyd's Register of Shipping (LR), Nippon Kaiji KyoKai (NK) and Registro Italiano Navale (RINA) for developing co-operation between the classification societies.

The next conference was held in Paris in 1955 followed by several meetings. It was during the Oslo conference in 1968 that the establishment of International Association of the Classification Societies was agreed upon.

The aim of IACS agreed upon by all members was:

- to promote the improvement of standards of safety at sea and prevention of pollution of the marine environment;
- to consult and cooperate with relevant international and maritime organization;
- to maintain close co-operation with the world's maritime industry.

As back as in 1992, IACS submitted the following statement to the IMO at the 61st session of the Maritime Committee;

“The International Association of the Classification Societies (IACS) wishes to inform IMO member States that its member societies have agreed to common procedures with respect to their co-operation with port States in the context of port State

inspections. A member society will attend on board a vessel classed by that society when so requested by a port State in order to facilitate the rectification of reported deficiencies or other discrepancies. The individual IACS member society concerned will, where appropriate, duly notify the vessels flag State and owners of such attendance and will fully co-operate with the port State in the ratification of any such safety related matter of either classification or statutory nature within its purview or authority delegated to it" (Reilly).

In short IACS has done the following for port State control:

- provided training assistance, especially in the vital link between IMO Conventions and class rules;
- made data available on class transfer; established databases on port State control detentions
- actively co-operated with IMO and newly developed MOU's;
- maintained dialogue with MOU Secretariats (IACS briefing No.6 March 1998).

Port State control can only be successful if the officers carrying out inspections are well versed with the IMO conventions and the classification societies technical rules. The rules of the leading classification societies provide a common reference point and IACS and its members are ready to assist in meeting the training needs of port State control organizations.

On the invitation of MOU's, IACS has provided training support to the Paris and Tokyo MOU's on port State control, and in future may provide to Caribbean and Mediterranean counterparts To improve international maritime safety, IACS is committed to full co-operation and information exchange with port State control (IACS briefing 2, July 1996).

The IACS program of seven key Maritime Safety Initiatives was formally implemented on 1 January 1996, which focussed to restrict the operation of shipping that fails to comply with the standards set by IACS members. The program includes:

- greater transparency of Class and Statutory information and automatic suspension of Class under specified circumstances ;

- tightening of the Transfer of Class agreement;
- qualification /certification and training of surveyors;
- relations with port State control.

The procedure for responding to port State control defines the co-operation and assistance to be given by surveyors during port State control inspections, including prompt and positive response to a port State request for a surveyor to attend on board. The brief summary of procedures responding to port State control, by IACS members and associates are listed in **Annex 4** (IACS briefing 2, July 1996).

From the above we see that there is a willingness on the part of the classification societies to co-operate with the port States, when notified. Classification societies are expected to assess the situation, provide advice and guidance and, when appropriate, make recommendations. The role of the classification society depends largely on flag States, as they are the ones who are delegating the authority to the classification societies. If the flag States have machinery to monitor the classification societies, the problem of substandard ships can be dealt with to some extent.

There are instances during the lifetime of a vessel, that change of classification societies might take place from one society to another. There may be many legitimate reasons, including a change in ownership, flag, underwriter or trading pattern etc. Also, instances where a vessel owner might consider changing society to avoid dealing with outstanding recommendations made by the existing classification society.

To keep a check on such transfers, IACS members have adopted a transfer of classification agreement and have established a database tracking each administrative and technical step in such transactions. These steps will safeguard the system to prevent a vessel from effectively changing classification society without satisfactorily dealing with all outstanding recommendations.

Recognizing this interest, IACS members have agreed to share the data with legitimate groups, including port States and underwriters (Reilly). But in reality it

does not always happen, as we have learnt from the recent *Erika* disaster. The objective of IACS is not realized, if one member of IACS is not committed in following the guidelines. What happens after an incident is criticized by all affected parties and in case of oil spills by the public and press also.

After the *Erika* incident, in shipping press, the oil companies appear to be criticizing each other for inefficient safety policies, while the classification societies, which have the responsibility of inspecting all ships, are also breaking ranks (Carlsson).

With the aim of tightening the safety net particularly for older tankers, IACS held an extraordinary council meeting on 16th February 2000 in the wake of the *Erika* accident. The Council decided to strengthen self-policing in various respects:

- vertical contract audits of old ships having changed class will be performed within the next few months;
- vertical audits will start on 10 RINA ships including the *Erika*. The history of *Erika* will be investigated for the past two years.

A number of significant decisions strengthening survey procedures were taken including:

- internal examination of all ballast tanks adjacent to cargo tanks with heating coils of ships of 15 years and more on an annual basis ;
- for tankers and bulk carriers of 15 years and older intermediate surveys will be enhanced to the scope of a special hull survey, with the exception of the dry-docking requirements
- an exclusive surveyor will monitor thickness measurements more closely (IACS press release, 2000, Feb.17).

How many more such accidents are required to eradicate substandard ships from operations? The question that comes to everybody's mind and the answer is not easy. Days are not far off when apart from targeting substandard ships we will have to identify substandard classification societies or substandard shipowners or may be even Administrations. A white list of Administrations, classification societies,

shipowners and others as in the case of STCW Convention may be seen in the future.

Recently another bulk carrier, *Leader L* sank. Eighteen crewmembers lost their life. It appears that *Leader L* had nine conditions of class, many of them related to corrosion, imposed during an abortive special survey in February 1997, by Lloyd's Register. However, the owner transferred the Class to Poliski Regestr Statkow, before the survey was completed. The transfer of class took place in May 1997. Problems included wastage on main frames, lower frames brackets and topside tank web frame faceplates (Osler, 2000_a). All parties concerned have started investigations. Whatever may be the result of the enquiry, lives have been lost. *Leader L* may not be the last one, more may follow, if the attitudes of the concerned persons are not going to change.

4.3 Duties of classification societies

Classification societies play a very important role in ensuring the safety of ships and the protection of the environment. They are involved with the design and inspection of the ships during and after construction. The surveys are conducted according to the society rules that have been established partly on the basis of extensive expertise and partly through research. Classification societies are better placed than most of the Administrations around the world, as they have the requisite manpower and expertise compared to the Administrations.

But sometimes due to the owner's operational commitment, classification societies do tend to look the other way. It has been observed from port State control reports that, inspite of valid statutory certificates issued by the classification societies, the ships are being detained all over, because they are found to be unseaworthy for the proposed voyage. The days are not far off when the owner himself will ask the classification society as to how his ship is detained when the vessel was issued with a certificate.

As per Regulation I/6 of the SOLAS Convention and Regulation 4 of Annex 1 and Regulation 10 of Annex II of MARPOL 73/78, the Administration may entrust the

inspections and surveys to nominated surveyors or recognized organizations. The recognized organizations are mainly the classification societies, which may or may not be members of IACS.

In view of the above, most of the Administrations around the world delegate some function or all, depending on the resources available to them, to carry out the statutory work on their behalf. At the same time Administrations are required to keep a close watch on the function of the classification societies, as the ultimate responsibility lies with the Administration.

Reasons for delegation to the classification societies are mainly:

- classification societies are in the field since the last two centuries;
- have adequate rules and regulations, required for the construction of the vessel;
- have a global network and offices all around the world and surveyors, if not, they appoint exclusive surveyors;
- surveyors are trained for various types of vessels;
- as they are independent bodies, recruitment of surveyors is not difficult in case more manpower is required;
- administration, who has to survey only small fleet of vessels, having a full establishment, is a burden on the exchequer.

IMO desires to develop uniform procedures and a mechanism for the delegation of authority, and a minimum standard for recognized organizations acting on behalf of the Administration, which would assist flag States in the uniform and effective implementation of the relevant IMO conventions and hence adopted:

- Resolution A.739 (18) regarding guidelines for the Authorization of organization acting on behalf of the Administration
- Resolution A.789 (19) regarding detailed specifications on the precise survey and certification functions of recognized organizations.

In the view of this author it appears that, as more and more flags of convenience entered the global scene to increase their revenues out of registration fees, without

any Maritime Administration in place, very many statutory inspections and surveys were delegated to classification societies.

Some of these classification societies did not have much experience. The end result was sub-standard ships sailing all over. Not even the competency of the seafarer was to the required standard. Now, with the IMO guidelines and specification, the harmonization of standards of different classification societies is expected.

However, even if the results of the periodic surveys are satisfactory, proper ship maintenance between surveys is necessary to keep a ship in a well-maintained condition. The responsibility of maintenance lies with the shipowner and the ship staff. The clause in the statutory certificates issued by the classification society often states that at the time of the inspection the relevant things were found satisfactory.

One case can be that during inspection the lifeboats were lowered and found to be satisfactory. But due to negligence of the ship staff, no regular maintenance routine was carried out. The lifeboat lowering mechanism was seized with corrosion in course of time, and lifeboats could not be lowered during emergency. Now the question arises. Who should be responsible? Should the surveyor of the classification society or of the flag State who carried out the survey be responsible? The answer is no. Why should a surveyor be blamed for the incompetence of the ship staff?

The answer to such incidents is port State control inspection or the unscheduled inspection by the flag State. But it is not possible in all cases for the flag State to carry out unscheduled inspections. Most of the ships may not call the ports, where flag State surveyors are available. To take care of such ships, port State control inspections help to ascertain ship maintenance between the classification /Administration survey. It keeps the ship staff alert.

Some of the States have delegated most of the Statutory surveys to the classification societies. As far as the author knows, there is no unscheduled inspections carried out by the classification societies. Classification societies will

have a continuing role to play in the future, to co-operate with each other, flag States and port States.

No doubt, once the vessel has been identified by port State control as having detainable deficiencies and is detained, the classification society is informed. They do board a vessel to facilitate the correction of the reported deficiencies. All major classification societies follow a common procedure during intervention.

But, why should there be a need for a third party like port State control to do the policing job? It can be justified if the deficiencies were found, say after 6 months of certification. Sometimes, ships can also be found with major deficiencies, even after a short period of time after being issued with statutory certificates.

Who is responsible for this? The shipowner, classification society, flag State or no one? The answer, in view of the author, is that all are responsible to some extent. If the shipowner decides to keep his vessel in satisfactory condition, there is nobody to stop him doing so. The flag States must be monitoring what has been delegated and take strict action, if found not to be complying, to the extent of withdrawing the delegation of authority. But flag States need to have machinery and the will to do so, which many unfortunately lack.

Being the world's largest register, Panama's maritime authority will begin an audit of class societies. This will squeeze out the substandard operators and may be substandard classification societies, which will remain. The Chief of the Panama register further stated that certain societies were suspected of giving certificates to "rust buckets"; some were said to be among the more reputable names in the industry. He said that if the societies failed to pass the audit, they would be retired from the list of companies, which could work with the Panamanian registry (Stares).

The author feels that inspections, finding deficiencies and detaining vessels are not the only answer on how to eradicate substandard ships. It does help in identifying substandard ships but the issuing authority should be held responsible, if it is found

that present deficiencies were also there during the initial inspection. Each serious case should be dealt with separately, and who will be responsible for this?

To answer the above, what we need is a Global harmonization of port State control. This will be discussed in later chapters.

After the *Erika* disaster, the standard of classification society has been again questioned. RINA came under intense scrutiny. port State control authorities detained two vessels classed with RINA with serious deficiencies. The Paris MOU nominated one of the vessels classed by RINA as February 2000 “rust bucket of the month” with a long list of deficiencies (Osler, 2000_b)

It is interesting to note here is that one of the vessel’s class and statutory certificates was withdrawn following annual survey on 18th February 2000 by RINA. If the *Erika* incident had not happened, may be she would have not been orphaned. How the vessel was put up for annual survey when she had a number of serious deficiencies is anybody’s guess? Going by the list of deficiencies pointed out by the port State, for example, emergency fire pump inoperative, life boat engine inoperative, life boat equipment not properly maintained, doubler plates on the collision bulkhead, there were indications of a structural problem, and many more.

The question many may ask is why were these vessels not targeted before the *Erika* disaster. Does port State control also have to wait for some disaster to happen? What happens after the disaster is well known. There is criticism for all concerned parties. Is it that port State control is also becoming another routine matter? To fulfil the target of the number of ships inspected annually to comply with the minimum requirement of MOU. How serious the members of the Memorandum are in carrying out port State control is difficult to judge.

No doubt there is lot a of paper work involved, once the vessel is detained, and also threats of penalty to be paid if unduly detained. These factors are always behind the mind of the port State control officer. Given a choice he would rather inspect a new

vessel than board a rust bucket and thus create a lot of work for himself. It may not be always like this, but exceptional cases are always there.

The major Classification society data on their share of tonnage are as follows:

- Lloyd’s Register has 102.5m gt. in class, representing about 19% of the world fleet.
- Class NK has 107mgt in class, representing about 20% of the fleet (6,591) vessels.
- Bureau Veritas has 34.8-m gt. in class representing about 6.4 % of the fleet (6,350) vessels.
- American Bureau of Shipping has 103.2.4m gt. in class representing about 16% of the commercial fleet (11,261) vessels. This also includes many non-commercial vessels.

(Osler, 2000_c)

Statistics for the port State control available from the annual report of Tokyo MOU for the year 1997 and 1998 appended in **Annex 5**. The deficiencies and detention per classification society, is summed up as follows:

Table 4A: Tokyo MOU detentions as per classification societies

Year	No. of ships inspected	% of ships deficiencies	% of ships detained	Classification society	Detention %
1997	12,957	58	6.3	Panama Register Corp.	55
1998	14,545	63	7.25	Panama Bureau of shipping	41.67

Source: Tokyo MOU annual report 1998

The percentage of ships with deficiencies is very high, in both years more than 50 %. But the detention percentage is 6 to 7 %. Even these ships if allowed to sail without rectification of deficiencies could have posed a threat to life and environment. Sometimes even small deficiencies pertaining to safety can be dangerous. We can come to the conclusion that port State control is contributing in ensuring that the ships which go to high seas are safe.

4.4 Consequences of accident on classification society

Tanker accident tops the headlines in media. When hundred die in some other accident, it is short-lived news. When a bulk carrier sinks with crew, it is again a few days news. But a tanker accident goes on for months. Pictures of oil damped birds and seals are shown day after day. Suddenly everybody in the authority realizes that some rules should be changed. Suggestions like banning the single hull tankers from plying in their region are heard. Is this the way a society should work? With the modern technology these days available, we should not react to one incident only.

Meanwhile, every State authority seems to believe that shipping will be safe only if their own flag flies onboard and if there is an age restriction on ships (Carlsson). Now the question being debated is weather the age of ships is related to accidents. In the opinion of the author it is the maintenance of the vessel, which is more important than the age. If age is to be the deciding factor for scrapping the ship, what age is to be fixed?

Erika was one of the eight sister ships built between 1974 and 1976. Three of which are reported to have suffered significant structural damage in the past ten years. Japanese and China classification societies are investigating the surviving vessels, meaning they were “bad” already from the beginning before you could say they were old ships (The sea, 2000_a).

RINA the Italian society that classed the ship maintains that it carried out its duties fully. However, it has come under pressure over claims that corrosion was discovered in ballast tanks some weeks before sinking (the sea, 2000_b).

It appears that even the sister ships of the *Erika* were involved in two oil spills in a four-month period in 1993. One of those vessels has changed name and flag several times. The class report shows a clear history of deck buckling and cracking. Also the tendency for the longitudinal to detach way back in 1986 (Osler, 2000_d).

The reactions after the *Erika* incident is listed below:

- More in depth investigation of the sister ship of *Erika* which was involved in two spills in 1993. The vessel in question flies the Turkish flag, and changed hands

several times and has a history of detachment of deck longitudinal way back in 1986 and 1991 (Osler, 2000_d).

- A proposal to tighten classification society scrutiny of aging vessels, particularly tankers was unveiled by Iarossi, Chairman of ABS. Same will be dealt separately (MacLaughlin).
- Decision being taken as to how to rid Europe of single hull tankers and tougher controls when vessels from whatever flag visit European port, as well as tougher technical inspections by classification societies. port State control directives would be updated to make inspection obligatory on tankers less than 20 years (Gray, 2000_a).
- France went on the offensive against polluters. Speaking to volunteers who were cleaning the oil spill from tanker *Erica* French President was of the view that polluters pay more for damage caused by oil slicks. He stated that “It is no longer acceptable that the community bears the brunt of damage caused by the rampant pursuit of profit” (Spurrier, 2000_c).
- Intertanko went to the extreme of threat to shun classification society by stating that some of the world’s leading classification societies may be ostracized by Intertanko in the wake of the *Erika* catastrophe off the coast of France. The alternative is to reduce to fewer acceptable societies (Gray, 2000_b).
- Trading opportunities for older tankers are becoming scarce as oil companies tighten their chartering policies in the wake of the *Erika* disaster. In view of the disaster the French government has put pressure on domestic Oil Companies not to employ tankers in excess of 15 years of age and use only the national flag (Gray, 2000_c).
- The European transport commission proposed the early phase out of single hull oil tankers as part of the post *Erika* maritime safety package. (Gray, 2000_d).
- The European transport Commissioner further said, “This proposal is balanced and places us in a position equivalent to the US. Without it, less performing ships would be concentrated in European waters”. An opportunity to legislate after the breaking of *Erika* must be seized (Gray, 2000_d).

It appears that the authority was waiting for some disaster to happen, to make rules more stringent. What will happen if a tanker less than 15 years also spills oil?

The above proposal was not taken well by the industry, as we see from the statement by Intertanko managing director, "session on classification society and port State control resulted in a very creative and positive discussions on how to improve matters. However, he was frustrated by the session on single hull tankers. They did not see it as a technical issue, but a political issue" (Gray, 2000_d).

Most of the actions quoted above could and should have been taken, before the *Erika* disaster occurred. Why wait for some disaster to happen? Why did the classification society issued statutory certificates to *Erika*? Why did the Oil Company charter the vessel? These are the questions to be answered. But now it is too late. The damage has been already done. Maybe with these new prescriptions, operators of substandard ships will now shift their operation to some other part of the World.

During the last three years *Erika* was inspected seven times by different port State control authorities, the last one carried out was in November 1999. All authorities who inspected the vessel are members of the Paris MOU. The list of deficiencies issued during the last port State control does not show any major deficiency. They were mainly pertaining to life saving equipment and freeboard marks.

During port State inspection it may not be possible to determine the actual condition of the vessel structure, especially if the vessel is an oil tanker, chemical or gas carrier. Even in a general cargo ship it is difficult for the port State control officer to inspect the structural condition. Sometimes such vessels are well maintained from outside like cosmetics, mainly to mislead the port State control officer.

Erika, a 25 year old tanker will be remembered in the maritime history at par with *Amoco Cadiz* and *Exxon Valdez*. As we see from the report of the European commission it has proposed radical measures to prevent oil pollution disaster on European coastlines. The European Commission made another fundamental step towards the enhancement of maritime safety in the community waters through the adoption of a communication on the safety of the sea-borne oil-trade, adopted on 21st March 2000. The proposal will strengthen the existing EU legislation on port

State control and classification societies, but will also phase out oil tankers with a single hull in EU waters.

The Commission has therefore proposed a series of immediate and long-term actions so as to avoid recurrence of *ERICA* type casualties:

- control of ships visiting Community ports should be reinforced and ships not meeting the norms should be dealt with severely;
- if the ships over 15 years of age have been detained by port State control authorities more than twice in the previous two years proposal to ban them from all Community ports, will publish a black list every six months;
- inspection of ballast tanks for older ships, to be included by port State controls and ships should be required to report certain data before entering a port so that inspections can be properly prepared;
- the Commission may seek to suspend or revoke the authority of societies if found negligent;
- transfer of the complete history file when a ship changes class to the new classification society and obligation to follow certain procedures.

(European Commission News release)

There were reactions from the shipping industry, regarding the proposal of the Commission, such as from the Spanish shipowner's association, "the rigid enforcement of the Commission's proposals on stricter vessels inspection and classification society would suffice and reduce the number of substandard ships, irrespective of origin or age, sailing in European water" (Reyes, 2000_a).

In general oil tankers are inspected by their owners, operators, flag State, port State, classification societies, charterers before chartering a vessel, insurers, port authorities and others. The list is growing, especially after each tanker accident's parties concerned lose confidence in owners, flag States and classification societies. The statement from one of the leading classification society is worth mentioning. "This is not a mystery," said Iarossi. "It is quite clear that the *Erika* sank as a result of structural failure, with disastrous results. Although ABS was not directly involved in

this casualty, the loss of the vessel and the devastation of the marine environment should be of great concern to every responsible member of the marine community.” “I make no apologies for any failure of class in this case,” Iarossi stressed. “Apologies will not help. Rather we all need to rationally search for meaningful improvements in the safety infrastructure”.

“The entire marine industry has accepted the substandard for far too long”, he insisted. “Substandard ships continue in service because there are substandard owners willing to operate them. They are supported by substandard flag States eager to register them, substandard charterers prepared to hire them and substandard class societies that will turn a blind eye to the shortcomings, while port States have become overburdened in their attempts to act as the policemen of the maritime world. In addition, there are still insurers and financial institutions prepared to underwrite them”. Class needs to immediately impose the following requirements like limit class transfer of vessels 15 years of age or older to a window of six months following the Special Survey completion date unless an equivalent survey is conducted at the time of transfer. Details in **Annex 6** (ABS press release, 00, Feb.4).

Even the IMO Secretary General in his speech at the Hong Kong Shipowners Association luncheon stated “ I think that concern over the *Erika* incident has been increased by the fact that the system of controls and inspections that was designed to ensure that any defects were detected quite clearly failed. The *Erika* was under the class and had been inspected by port State control and industry inspectors several times, yet none of these surveys showed that the ship was about to split in two. We are all bound to ask why not? (O’ Neil, 2000_b).

In the opinion of the prominent US tanker operator, there is something fundamentally wrong when tankers need to be inspected by classification, insurance underwriters, flag and port State and oil major companies. If new procedures could eliminate all these inspection, safety would be improved. To achieve this he said that:

- the number of classification societies should be slashed to not more than three;

- have class standards set up by an international body under IMO;
- have class societies paid through flag of registry and not the owners;
- have competition between classification societies eliminated.

The *Erika* disaster had catalyzed opinion towards the tanker industry. “The *Erika* which was an unfortunate serious environmental tragedy, has become the wake-up call that the tanker’s industry needed” (Bray).

What happened to the *Sleipner Ferry* tragedy is well known and will not be discussed in detail. The author only wants to bring the sad part of the whole tragedy to limelight. Life saving appliances provided on board for the safety of passengers and crew appears to have failed. The whole exercise of carrying out inspection by flag State, port State and others have no meaning, if the equipment is faulty.

During the annual safety equipment survey, the maximum what is tried out is lowering of the lifeboats, and donning of life jackets. Now if the lifejackets are faulty at the design stage it is very unfortunate. No surveyor no matter what experience he has can judge that during annual inspections.

The report of the UK Maritime & Coast guard Agency (MCA), who carried out the tests of the lifejackets after the incident, revealed several shortcomings in the design including:

- difficulty in donning the life jackets without instruction;
- serious concerns about the ability of the life jacket to turn around an unconscious casualty lying face down in the water;
- the lifejacket’s ability to achieve the maximum mouth clearance above the water surface. (“When type ---“, Fairplay).

4.5 Relevant IMO Conventions

As far as classification societies are concerned, they don’t have to deal directly with all the IMO conventions. For example with respect to STCW, the classification society may be involved indirectly for issuance of the Quality system certificate for the training institute. The main Conventions they deal with are pertaining to

Construction, Load Line and MARPOL, to the extent applicable to ships only. The other parts of MARPOL such as reception facilities and pollution control are being dealt with mostly by the Administration.

Most of the States have delegated statutory surveys to the classification societies depending on the manpower available to them, however:

- some Administrations carry out the safety equipment survey themselves, and survey for issuance of SAFCON, Load Line and IOPP is done by the classification societies.
- others have delegated all statutory surveys and issuance of the full term certificate, and some even ILO matters.

In the view of this author, if the surveyors of the Administration are carrying out port State control, they need some experience of flag State survey. Seminars and workshops are not sufficient to give all the practical knowledge they may require. In view of this, the Administration should at least develop its own team of surveyors to carry out surveys pertaining to safety equipment.

In doing so, flag State surveyors will be boarding a vessel at least once a year, and at that time they can also carry out a general inspection. The way the classification society works can also be monitored.

Due to the role the classification society has to play, comes in for a lot of criticism after each marine casualty. The fingers are pointed at them. The cause of the casualty may or may not be linked to the classification society certification.

Class plays a central role in the safety of the ship. Recognizing this, the 1st July 1998 revision to SOLAS 74, on “Recognized Organizations” requires “ships to be designed, constructed and maintained in compliance with the structural, mechanical and electrical requirements of a classification society, recognized by the Administration, or with applicable national standards of the Administration which provide an equivalent level of safety”.

4.6 Effect of ISM on port State control

“Of all the new initiatives introduced within the maritime industry in recent times, the ISM Code represents one of the most significant far-reaching changes. Indeed, some industry participants believe that the ISM Code is the biggest change since the SOLAS convention, which was first introduced after the *Titanic* sank” (Hawkins).

Quality is becoming the key word in all aspects of life including maritime industry .to have a safer, efficient and competitive maritime sector. Human error in ship operation has long been debated, and it was observed that 80% of accidents take place due to human operational error.

Reasons for human errors in ship’s operation are numerous:

- fatigue, due to reduction of manning, and short port stay;
- stress, due to long stay on board, and noise;
- poor qualification of seafarer, lack of adequate training institution and also not to the required standard;
- multinational crew resulting in language and culture differences;
- negligence;
- living and working condition;
- sometimes even the attitude of senior officers;
- away from family for a long period.

To minimize the scope for poor human decisions, which contributes, directly or indirectly to a casualty or pollution incident on ships, the ISM Code evolved.

Having realized the highest potential for improvement on the management and operational side the IMO developed and adopted Resolution A. 647(16) “IMO Guidelines on Management for the safe operation of ships and for pollution prevention” at its 16th Assembly. The succeeding Resolution A. 680(17). was adopted in November 1991. Further in November, 1993, at its 18th assembly the ISM Code for the safe operation of the ships and for the pollution prevention was adopted vide Resolution A. 741(18) and in May 1994 it was made mandatory as Chapter IX of the SOLAS Convention, which came into force from 1st July 1998 depending on type and tonnage of the ship. In November 1995 Guidelines on

implementation of the ISM was adopted as Resolution A.788(19) at its 19th Assembly.

The ISM code introduces proactive approaches to compliance and to the prevention of accidents before they occur. It develops a procedure that goes beyond the practice of correction of defects only when deemed necessary.

The preamble to the ISM Code states that the cornerstone of good safety management is commitment from the top level. In matters of safety and pollution prevention it is the commitment, competence, attitudes and motivation of individuals at all levels that determines the end result.

4.6.1 Purpose of the code:

The principle purpose of the Code is to provide an international standard for the safe management and operation of ships and for pollution prevention. The purpose is directed towards:

- establishment of safe practices in ships operation and a safe working environment;
- the prevention of injury and loss of life;
- the scope of the relevant IMO and ILO Convention has now been effectively expanded to address also the human element.

The success of the ISM code will only be felt when all responsible for operation of the ships implement the same. Section 1.4 of the Code states that every company should develop, implement and maintain a safety management system (SMS) which includes the following functional requirements:

- a safety and environmental protection policy;
- instructions and procedures to ensure safe operation of ships and protection of the environment in compliance with relevant international and flag State legislation;
- defined levels of authority and lines of communication between, and amongst, shore and shipboard personnel;
- procedures for reporting accidents and non-conformities.

- procedures to prepare for and respond to the emergency situations; and
- procedures for internal audits and management reviews.

As stated by ABS President, ISM offers a chance for self-regulation, rather than prescription. He further states that “the code itself may be a regulatory requirement, but it does not, and will not establish or result in a clearly defined set of regulation standards applicable to all operations. Unlike every other safety standard imposed upon the industry, the ISM Code does not set clear yes or no, conformance or non-conformance, criteria” (Osler, 1999_e).

The weaknesses in the Code according to him can be summed up as follows:

- lack of uniformity of interpretation by the world’s various port State control authorities;
- some flag States are willing to accept audits by organization that do not appear to have appropriate experience or resolves or even continues to consider ISM certification withdrawn by the audit body as still valid.

Some company’s hastily developed ISM procedure manuals that were even more hastily imposed upon the staff as the deadline for ISM certification approached. There have been instances when the Shipboard manuals were provided to the ship staff, just a day prior to the audit. Very few officers may have been honest enough to tell the auditor the facts. It was for the auditor to judge the situation and act.

Speaking on the practical impact of the International Management code since its introduction in July 1998, the safety system manager for Bureau Veritas (BV) said that it “had a positive impact but, inevitably, dishonest owners and operators had managed to locate yawning loopholes in the system”. One of the short cuts being used by the shipowners was the use of interim certificates, which could be issued if there is evidence that they planned to implement a system. Even shopping around for a favorable certification from a class society was observed. Competition among societies by reducing the tariffs and fees for ISM certification had become huge and fierce (“Competing societies-----”).

As per the US Coast Guard Captain Tom Gilmous, “the ISM code has improved matters. But it has not changed the relative (safety) ranking of the shipping companies or classification societies”. The Coast Guard has so far detained twenty-five ships having valid ISM certificate for ISM related deficiencies and ordered seven out of US waters. This shows the different standard of ISM certification and the way they were obtained.(Competing societies’-----“).

During the extraordinary Council meeting held on 16th February, 00 in the wake of *Erika* accident IACS Chairman Hans Payer stated that “IACS is declaring war on substandard ships” (IACS, 17th Feb. press release). If the owners and managers of *Erika* had properly implemented the ISM Code the accident would have been most unlikely. It appears that *Erika* on paper was perfectly satisfactory. Causality of *Erika* has proved that just ISM documentation on board is not sufficient to avoid accidents. Paper is not enough to hold ships together, or to keep the water out. The ship’s most probable destination would have been the scrap yard, rather than the floor of the Atlantic if the system of survey and inspection was followed (Leader).

A leading international ship manager commented on the effectiveness of the ISM code in fighting substandard shipping. He said, “Given that the Code was meant to put the substandard operation out of business. I see very little evidence of that happening”. He further stated that, “indeed I am yet to meet or hear of anyone that has failed to have gained accreditation”. According to him some sub-standard operators are using professional crews that move from one ship to another as the ISM, SMC becomes due for audit or renewal (Bossen, 1999_a).

What we gather from the views of the owner, manager, classification and the port state on ISM, are that the audits were not carried out as they should have been by the Auditors. But at the same time we cannot come to the conclusion that there was no effect of ISM on safety. There has been an improvement in the safety culture, at least now apart from the officers the crew also knows something about safety. It may take some time to see the result. At the same time auditors should be stricter while carrying out interim audits. As around more then two years would have passed since the implementation of SMC on board ship.

For more effective ISM Code implementation, there should be:

- no competition among the classification societies;
- better trained Auditors;
- better training provision for seafarer and shore based personnel,
- administrations should have greater control over the implementation process through more rigorous ISM audits and port State control inspections Most of the administrations have authorized the classification societies to carry out the audit and the issuance of the relevant certificate.

Changes in individual attitude and behavior is required for an improvement in safety culture. This can be done in three stages.

- development of greater awareness;
- specification of desired behavior;
- practice of the new behavior.

New concepts such as teamwork, motivation, training and a bottom up approach have to be established and cultivated (Payer)

With the implementation of the ISM Code, levels of responsibility for the shore staff is also to be defined. They are equally responsible for the ship safety and environment protection. The advantage of the ISM Code is that it talks about safety culture at all levels, involving both those at sea and ashore.

“The ISM Code is seen as a mechanism that gets down to the root cause of poor safety standards, i.e. human error and lack of managerial control over human performance and shipping performance, and thus offers the best outcome if implemented properly” (Hawkins). The weakness in ISM Code implementation as per the Final Report- Safer Shipping in the Asia Pacific Region Project (Phase 1), conducted by the Asia Pacific Maritime Institute Australia appended in **Annex 7**.

Regulation 6 of Chapter IX of SOLAS authorizes control of a vessel for non-compliance with the vessel’s safety management certificate in accordance with SOLAS Chapter 1 and XI.

The port State control officer has to use his professional judgement in deciding whether a more detailed inspection is necessary. There has to be a clear ground for doing that, which may include absent or inaccurate ISM Certification or detainable deficiencies in other areas.

ISM may not help in improving the safety standard of the ship, if the owner or operator is not serious about its implementation in the true sense. It does not imply that a ship having ISM certification is safe. How can we justify the sinking of the bulk carrier *Leader L* and tanker *Erica*

During a campaign period of concentrated inspection on ISM Code compliance, from 1st July to 30th Sept. 98, by member Authorities of Tokyo MOU, total 1,820 inspections were carried out on ships to which the ISM Code was applicable. Almost 705 were bulk carrier. A total of 63 detentions involving 61 ships was recorded, all due to improper ISM Code certification or major nonconformities in ship's safety management (Tokyo MOU Secretariat).

A survey carried out by the Swedish Club and a study released show that hull and P & I claims have reduced steadily on ISM accredited ships when compared to non-ISM ships. The Club is a firm believer in ISM and expects that with the approaching 2002 deadline for remaining vessels to be ISM accredited, the gap between the two groups claims will begin to narrow (The Swedish Club).

During port State control inspection, where there is an objective evidence for believing that the Master and crew are not familiar with essential shipboard procedures as laid down in the ships manual relating to the safety of the ship or that the ship's certificate including ISM Code certificate are not in order, the port State control officer can come to the conclusion that the system is not in order.

There are problems for the port State control officer, while carrying out ISM checks. Like the language barrier. The manual may be in a different language than that understood by the port State control officer. The Code requires that relevant information on the safety management systems shall be given in the working

language or languages understood by the crew. Even the records may be in a different language. These are the practical problems, which are to be taken into consideration.

Coming to the conclusion, the author wishes to state that the classification society should play a major role in eradicating substandard ships. They are the ones who are certifying the ships for issuance of Statutory and ISM certificate. While carrying out port State control, it should be very clear in the mind of the officer that he is not carrying out the audit. The port State control officer should mainly see that the procedure between the company and those on board are running in a controlled way.

If the ships are certified without compromise in the initial stage, and the owner continues to maintain the ship, there is no need for a port State control to develop. But, as we see, there are still a few operators who continue to ply their substandard ships, inspite of all regulations. One incident like the *Erika* is good enough to malign the whole shipping industry. The honest operator suffers more, he maintains his vessel and after each incident, more new regulations are imposed on him.

To keep a check on such operators, who do not comply with the regulations, port State control is the only answer. Close working relation between all the MOU's is required for a harmonized control over substandard ships. This will be discussed in the next chapter.

Chapter 5

The Need for Harmonized Regional Procedures and Global MOU on port State control

"Of course, nowadays the industry plays an important role in 'IMO deliberations and most shipowners share IMO's commitments to high standards. But there is still a minority - a small minority –that tries to cut costs at the expense of safety but unfortunately this group puts a cloud over the whole of the industry". (Mr. William A.O' Neil)

5.1 Why harmonized Regional procedures

Many ships are being detained for minor faults. If port State control is to be successful, it should concentrate more forcefully on substandard vessels, in a manner where it becomes difficult for the shipowners to operate unseaworthy ships.

The Paris MOU has harmonization of standards throughout the region as compared to the other MOU's as all member States have a developed Administration which is in existence since 1982. The newly formed MOU's member States are not at a similar level of development and not so developed Administration.

If the port State control officer is not trained, there may be instances where ships are detained for minor faults. Port State control officers should be able to identify a substandard ship from a normal ship and take action accordingly. Because of the existence of substandard ships, also ships that are properly maintained are sometimes targeted and put to inconvenience.

There is a problem of uniformity in the implementation of port State control, and no cooperation between all the regional agreements and has been a topic for

discussion since the first port State control inspection began in the early 1980s. The view point of classification societies regarding port State control inspection consistency, as stated by ABS Pacific manager is:

“A surveyor needs years and years of training before he understands what he is doing, but as port State control has developed very quickly over a short period of time, they have had to find inspectors from all sorts of area” further he states that “ frankly some of these inspectors are not qualified for the job and that causes a big problem”

(Bousen, 1999_b).

How far he is justified in making a statement of this magnitude towards the port State control can only be confirmed if any statistics were provided. However there must be some cases where port State control officers had been unjustified in detaining vessels in the initial stages of port State control, or may be there are still some cases where the port State control officer is wrong in his decision.

It is interesting to note the statement by a fleet director of a shipping management company. He states: "With port State control inspection, the worst thing is that the owners have no recourse except to deal with the same authority. There should be some sort of center body to act as the judge and jury on this" (Bousen 1999_b).

In the Amendments to the procedures for the port State control, Resolution A.787 (19), it is stated that “the company or its representative have a right of appeal against a detention taken by the Authority of a port State. The appeal should not cause the detention to be suspended. The port State control officer should properly inform the master of the right of appeal.” (IMO)

Pitfalls that could harm the program include:

- careless targeting;
- lack of professionalism or skills by an inspection party;
- incorrect application of standards;
- overzealous enforcement pointing out a declaring a SOLAS intervention due to unseaworthiness but failing to note the vessel was on blocks in a dry-dock for

planned repairs, or noting a SOLAS intervention because dried paint was found on the exterior of a fire nozzle, despite the paint having been scrapped off by a crew member by a finger (Healey).

The consequences include a bad name to port State control, delays to ships involved, wasted human resources and financial costs because of delays. On a global level, world shipping has been hit by economic hard times. If port State control is carried out poorly, the risk of economic harm is great.

With the adoption and successful operation of the Paris Memorandum of Understanding (Paris MOU), over the last 18 years, it has become apparent that regional operations are not only effective, but also more economical. But as stated earlier, port State control can only be more effective when there is a harmonization of standard throughout the globe.

A comment from a shipmaster is worth mentioning here, as they are the ones who are facing all the inspections on arrival at the port:

“The effectiveness of port State control throughout Europe depends on the state of mind of whichever inspector calls. For example in the Netherlands, a vessel may be allowed to sail on the understanding that the defects will be rectified when it is convenient, whereas in neighboring Belgium the ship would be detained and appear with a black mark in the Paris MOU on port State control quarterly figures”.
 (“Port State----“)

Even after 14 years of implementation of port State control in Europe, harmonization has not been achieved. It indicates what expectations may be made of other MOUs. Some of the MOU members even have to start from the initial stage to establish an Administration.

Nowadays, as soon as the gangway way is rigged on a ship in a port, instead of ship chandlers, agents, laundry man, we have different inspectors waiting to approach the Master. Instead of going ashore, reading mail from home for which they have

been waiting after a long voyage, the ship crew has to attend to the port State control officer, the classification surveyor or a oil major inspection. Later they have to attend to the various deficiencies pointed out by the port State control officer or other inspectors. These deficiencies may sometimes be minor in nature.

Are we making life easier for the seafarer? The same story goes on from one port to the other. As more and more MOU's are being signed, more inspections, more paper work for the shipmasters and more authorities to be satisfied and entertained.

A global network of regional port State control agreements shall soon cover most of the World's ocean. The growth of MOU's was inevitable and essential as substandard ship continued to be operated at high seas, endangering the lives of the seafarer and the environment. "IMO has been developing a global strategy for port State control in order to ensure that, while the system may be regional, the standards applied will be universal" (UN session 53rd session).

After the Paris MOU success in recognizing substandard ships, there has been no looking back. More regional agreements were established and emerged in the same form as Paris MOU. There was a need for it, as substandard ships driven out from one region continued to operate in the other regions. To get rid of this menace, the co-ordination and co-operation of all the States is needed. At the same time harmonization of inspection is required. As some maritime States do not even have a maritime Administration and machinery to tackle this problem, there are no trained surveyors to carry out the port State control.

The Paris and Tokyo MOU's are striving for consistency. As per the report, Tokyo MOU members have been working to harmonize port State control activities and bring a level of uniformity to inspection standards. To achieve this, three level programs have been implemented in the recent years:

- to provide basic training to 220 port State control officers in the region over a five-year period. Goal looks to be achieved ahead of schedule;

- expatriate mission program, where experienced port State control officer from better developed port State control authorities are sent to work in less advanced maritime Administrations. This program started in 1997 and expatriate missions have been conducted; and
- to harmonize port State control procedures the scheme started in 1997, is the port State control officers exchange program conducted among the more developed maritime Administrations (Bousen, 1999 b).

Paris MOU held its 29th port State control seminar in Bangor, UK. These seminars are aimed at harmonizing port State control procedures throughout the region and implementing control aspects of new international legislation. Apart from members of the Paris MOU, participants from other States also attended as observers.

As a region we cannot effectively eradicate substandard ships. Similarly the various Memoranda on port State control operating on their own, will not be able to eradicate all substandard ships. What is required is a global harmonization of the port State control inspection. This will also help in reducing the workload of individual regions and the cost.

What we need to achieve this is a trust in each other's inspections. To have trust, we need to have a common standard of inspection. To achieve common standard of inspection we have to have trained and experienced officers, who can carry out inspection. Training is also to be of the same standard, all over. To achieve all this we need a global relationship between all the Memorandums. It is too early to achieve this, as some of the MOU's are not more than in infancy stage, and some MOU's are still to be signed. But the ultimate aim should be to have a common database and cooperation among all the MOU's.

It is really surprising that during so many years all have been trying to get rid of these substandard ships, but we are not able to do so. Even more surprising is that it is not something like hidden from the eyes of the authorities concerned. Ships are present in front of the eyes of the flag State, classification society and other interested parties.

Then why are we not able to single out the concerned parties? Year after year the classification societies and flag State surveyors inspect the same vessels. They board the vessels practically every year to issue or endorse statutory certificates. Then how are these vessels able to get certificates? Does it mean that there are some interested parties who are encouraging these vessels to ply?

The interest of these parties may be different for different reasons, may be monetary, may be out of compulsion and may be political pressure. It is these interested parties, who have given enough reasons for port State control to grow. It is growing no doubt, and will continue to grow. As it will grow it will become stronger. Strength comes from unity, and if all the MOU's unite and work in tandem, there is no reason, why these substandard ships cannot be chased out from the ocean in a short period of time.

These substandard ships have no right and reason to ply, exposing the life of the seafarers and the environment in danger. Most of these vessels have valid statutory certificates, otherwise how do they get port clearance. Why not target those who issues them the certificates, instead of targeting the ships. Why not eradicate the origin of the substandard ship?

What happens if a vessel is issued with all statutory certificates at a port where there is no effective port State control, and she is loaded with a cargo of oil. Due to being substandard and unseaworthy she might break up after few days and cause widespread pollution?

Now, in such a scenario, what can a port State do? The damage has already been done! Port State control should not be forced to become stronger; instead the parties who are responsible for making these substandard ship ply should be targeted. It is like creating extra work for the others, and at the same time endangering the life and the environment. One party issues a certificate to a substandard ship, and then other's have to identify. Why is this energy and money being wasted to check what others have done wrong.

Do we have substandard surveyors, or are they working under the instruction of their superiors to close their eyes. Substandard owners will always be there. No shipowner is interested in seeing his money being wasted in safety equipment, that may not be used for the next 20 years, until he is forced by the rules and regulations and commitments by the flag State for implementation.

Why do we have substandard parties to compromise with these substandard shipowners? Why do we have oil companies to charter these ships? Why do we have financiers to finance such ships?

Well, the answer to all these questions is that shipping has been allowed to operate like this for a long period of time. Compromises have been made with safety, so that few owners can save money. But who suffers the most? It is the genuine operator who suffers. He complies with all new regulations, still he is made to go through all the inspections at various ports. Sometimes inspections by those who are not well trained. How long will they go through this extra burden?

We are talking about fatigue of seafarer and its contribution towards accidents. Are too many inspections not exposing the Master and the crew on arrival to the port in contributing to the fatigue? In some cases the ship has to sail after a few hours of stay at port. During that short time sometimes port State control inspection has to be carried out. Until there is a commitment from all the parties concerned, things will not change.

After the *Erika* incident, a lot of suggestions were made. Even some concerned regarding the safety had suggested to have a third eye, during the special survey and to have a different classification society surveyor to keep a watch on the survey what one class is doing. What are we coming to? What happens, if this third eye also compromises with the safety standard? How are we to be sure that the owner will not influence this third eye?

There are actually three possible forms of port State control according to the Secretary of Paris MOU during the year 1995:

- Unilateral

- Global
- Regional

Unilateral control

Advantages of unilateral control include:

- “it can be exercised to the extent deemed necessary by the port State;
- its scope can be enlarged to include the port State’s national requirements; and
- the commitment involved is determined exclusively by the port state.

Disadvantages include the following:

- its efforts can be less effective than when performed with other port States, because;
 - ◆ of the lack of relevant information from abroad;
 - ◆ ships are no longer under surveillance once they sail from the port- state’s territorial waters; and
 - ◆ there are no ways to enforce or monitor rectification of deficiencies after the ship has left the port State territory.
- it is less cost effective since the full financial burden rests on the individual port State;
- it places a disproportional burden on ship’s staff when compared with different port State control programs in consecutive ports; and
- it may distort competition between regional ports like ships may divert to ports with more lenient safety regimes, thus creating commercial advantages.

Regional control

Advantages of regional control include:

- maximum commitment from participating countries that share common safety and environmental interests,
- effective use of regionally available information;
- ships remain under surveillance as long as they operate in the region , reducing the possibilities for substandard operations;
- operational costs are shared by all participating port States;

- a harmonized approach to procedures lowers the burden on ship's staffs and permits effective deployment of available resources of participating States; and harmonized procedures prevent distortion of competition between regional ports.

Disadvantage include:

- It is only effective in preventing substandard ship operations in the particular region, and tends to shift them to other areas.

Global control

Advantages of global control include:

- it will have maximum impact on substandard operations because ships will remain under constant ,world wide surveillance;
- it ensures maximum availability of relevant information to port states;
- it implicitly allows for maximum harmonization of control performances; and the cost of operation is minimal.

Disadvantages include:

- it lacks sufficient commitment by participating States for geographical reasons;
- it would require an international treaty to administer ,implying:
- lengthy ratification procedures;
- time consuming, rigid amendment procedures, and
- much compromise required, which is detrimental to the necessary commitment; and
- difficulty in adjusting to maritime developments requiring immediate response".

(Huibers)

Mr. Huibers, further stated that considering the advantages and disadvantages of the three options, it is easy to conclude that port State control should be accomplished through concentrated regional efforts. Indeed, it eliminates the disadvantages of unilateral control and allows for more commitment on the part of participants than global control.

5.1.1 Various Existing MOU

As discussed in previous chapters, the problem of substandard ships can only be eliminated by regional cooperation, hence various MOU on port State control came into existence.

The history of MOU can be traced back to the Hague MOU, which was a MOU between certain Maritime Authorities for maintenance of standards on merchant ships. Following the *Amoco Cadiz* disaster, the Hague MOU was superseded by the Paris MOU which was signed on January 26th, 1982. The signing of various MOU's on port State control can be attributed to the adoption of the Paris MOU and the IMO Resolution A. 682 where in States are encouraged to reach regional agreements dealing with port State control (Keselji).

The function of member States of MOU's can be summed as follows:

- targeting of substandard ships;
- inspection to find out if there are clear grounds for extended inspection;
- deficiencies if any ;
- serious/non serious deficiencies as per the professional judgement of the port State control officer;
- rectification of deficiencies prior sailing;
- if not serious allow the ship to sail to next port, if not able to rectify;
- detention if necessary.

For targeting of ships, different MOU's have laid down different criteria and guidelines for the member States, for instance Paris MOU have a targeting factor as described in **Annex 8**.

Existing regional agreements on port State control

- the Paris Memorandum of Understanding on port State control (Paris MOU), adopted in Paris on 1st July 1982;
- The Latin American agreement (Acuardode Vina Del Mar agreement on port State control) signed in Vina Del Mar in Chile in November 1992;

- the Memorandum of Understanding on port State control in the Asia-Pacific Region (Tokyo MOU), signed in Tokyo (Japan) on 2nd December 1993;
- the Memorandum of Understanding on port State control in the Mediterranean Region (Mediterranean MOU), signed in Valletta(Malta) on 11th July 1997;
- the Memorandum of Understanding on port State control in the Caribbean Region (Caribbean MOU), signed in Christchurch (Barbados) on 9th February 1996;
- the Indian Ocean Memorandum of Understanding on port State control (Indian ocean MOU) signed in Pretoria (South Africa) on 5th June 1996;and
- the Memorandum of Understanding for the West and Central African Region (Abuja MOU), signed in Abuja (Nigeria) on 22nd October 1999.
- the Memorandum of Understanding for the Black Sea (Black Sea MOU), signed in Istanbul, (Turkey) on 7th April 2000.

Relevant instruments

For the purpose of the Memorandum following are the relevant instruments for Paris and Tokyo MOU's.

- the International Convention on Load Lines, 1966 (LOAD LINES 66);
- the Protocol of 1988 relating to the International convention on Load Lines, 1966 (LL PROT 88);
- the International convention for the Safety of Life at sea, 1974 (SOLAS 74);
- the protocol of 1978 relating to the International convention for the Safety of Life at Sea, 1974 (SOLAS PROT 88);
- the International convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78);
- the International convention on Standards of Training, certification and Watch keeping for Seafarers, 1978 (STCW 78); (as amended 1995)
- the Convention on the International Regulation for preventing Collisions at Sea, 1972 (COLREG 72);
- the International Convention on tonnage Measurement of Ships, 1969 (TONNAGE 69);
- the Merchant Shipping (Minimum Standards) Convention, 1976 (ILO Convention No. 147) (ILO 147).

Application of the clause “no more favorable treatment”

All existing MOU's have included the no more favorable clause for ships entitled to fly the flag of a State, which is not a party to the relevant instruments in the memorandum. In order to carry out more detailed or expanded inspection as appropriate, in case there is no certificates representing *prima facie* evidence of satisfactory conditions on board, the port State control officer will follow the same procedures as provided for ships to which the relevant instruments are applicable.

In the Paris MOU additional requirements are included, such as evidence of satisfactory manning as per STCW and holding valid certificates. If the ship or the crew has some alternative form of certification, the port State control officer, in making this inspection, may take the content of this documentation under consideration.

Paris MOU.

The Paris MOU on port State control is the official document in which the 18 participating Maritime Authorities agree to implement a harmonized system of port State control. The MOU consists of a main body in which the Authorities agree on:

- their commitment and the relevant international conventions;
- the inspection procedures and the investigation of operational procedures;
- the exchange of information ;
- the structure of the agreements and amendment procedure;
- the members recognizing that the effective action by the port State is required to prevent the operation of substandard ships; and
- mindful that the responsibility for the effective application of standards laid down in international instruments rests upon the authorities of the State whose flag a ship is entitled to fly;
- need to avoid distorting competition between ports.
Convinced of the necessity, for these purposes,
- of an improved and harmonized system of port State control;
- of strengthening cooperation; and
- have reached the understanding which is detailed in the memorandum.

Provides that all costs related to the inspection to be charged to the owner or operator of the ship if the ship is detained and there is a European Union directive to this effect (Boisson).

Other activities of Paris MOU:

- the Paris MOU conducts seminars regularly. The seminars are attended by port State control officers from Paris MOU as well as participants from the Tokyo MOU, Vina del Mar Agreement, United States Coast Guard and others;
- it is also taking an initiative in establishing a program of advanced training of port State control officers in order to keep abreast of technological change in the maritime field and of corresponding regulatory development;
- monthly lists of companies responsible for the operation of ships detained more than once or having more than one ship detained within the previous 12 months are issued. Data concerning the performance of classification societies are published as per the detentions (Paris MOU; 5/99; what's new);
- concentrated inspection campaign on structural safety of bulk carriers were carried out by European and Canadian port State control authorities. Vessels targeted were of more than 30,000 gt and more than 15 years old, particularly those transporting high density or corrosive cargoes and trading on the spot market (Tinsley).

The concentrated campaign result on bulk carriers revealed that, whilst checks on the structural safety of large bulk carriers calling at European and Canadian ports have shown some improvements, serious defects are still being found. The detention rate of bulk carriers during the campaign of three months was 10% compared with the whole of 1998 of 13.9% (Paris MOU, 1999_a).

These concentrated inspection campaigns are announced and done. They are not like unannounced port State controls. They have their advantages and disadvantage

The advantages are as follows:

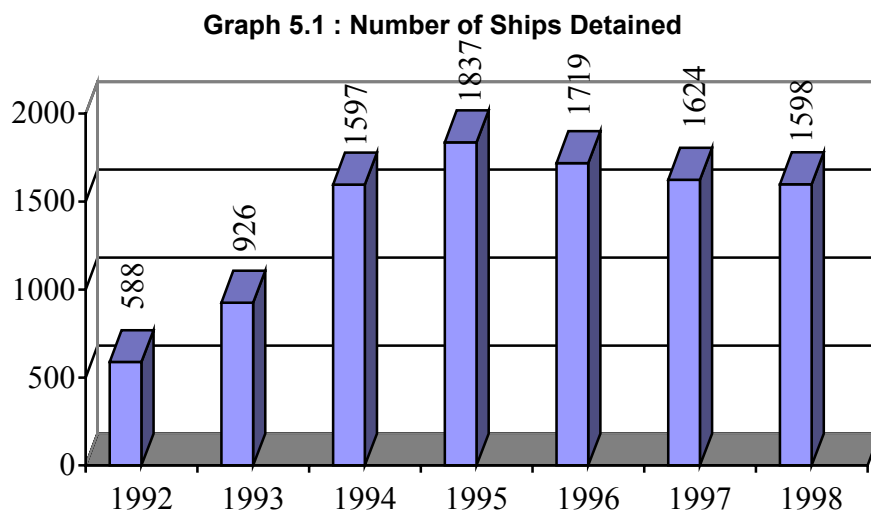
- owners, charterers, and classification societies, will be on alert;
- any maintenance due will be carried out prior to coming to any port;
- can concentrate more on structural inspection in case of bulk carriers.

Disadvantage of concentrated inspection campaign is as follows:

- defects can be listed and shown to the port State control officer, that corrective action is in progress;
- some operators may avoid the ports, during such a campaign.

In June 1999 Paris MOU held its 28th port State control seminar in Antwerp, Belgium, which aimed at harmonizing port State control procedures throughout the region and implementing control aspects of new international legislation. During the 32nd meeting of the port State control Committee, which took place in May 1999, new amendments to the Paris MOU on port State control concerning High Speed Crafts were adopted (Paris MOU, 1999_b).

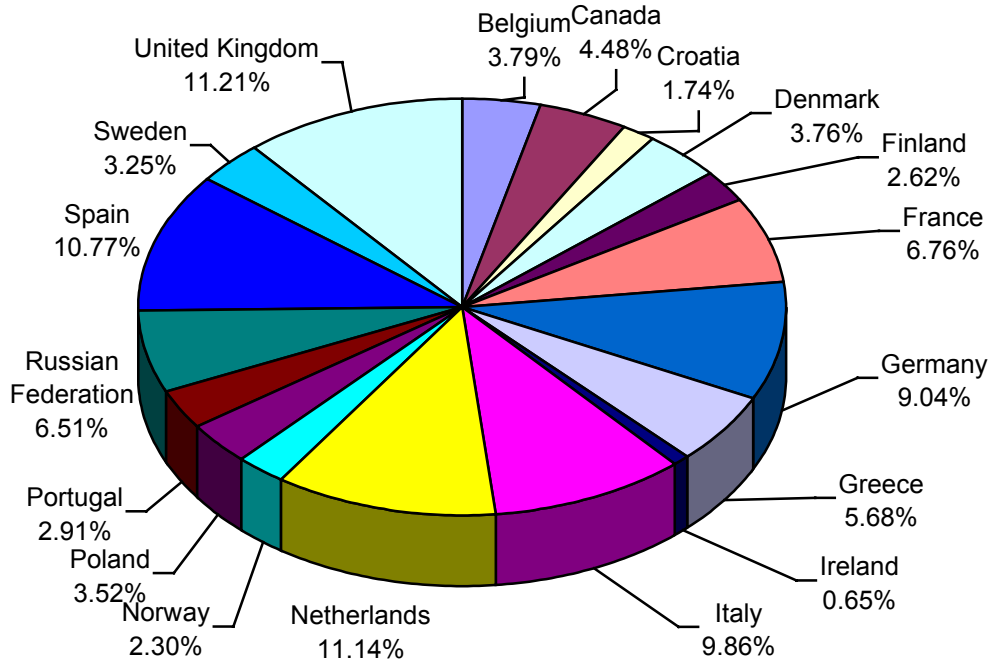
Statistics of port State control, Paris MOU



Source: Paris MOU Annual Report 1998

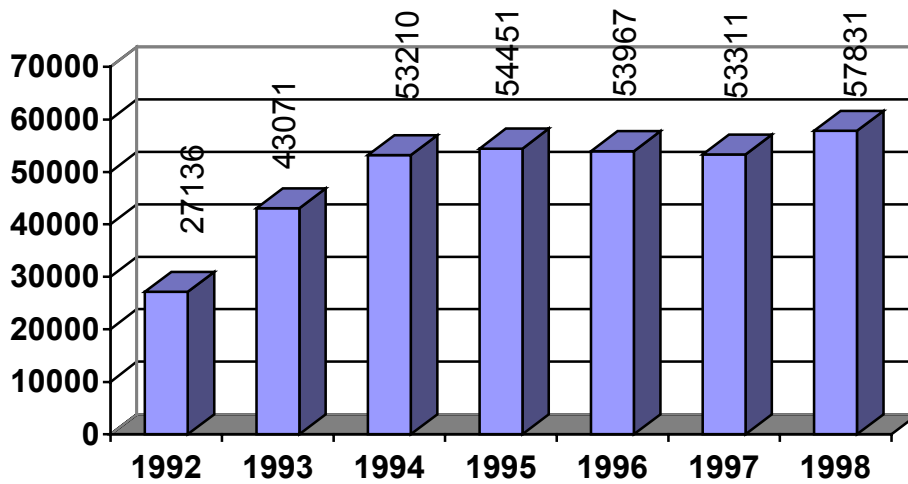
From the information contained in graphs 5.1 to 5.5, the following observations can be made. The efforts by Paris MOU to eradicate substandard ships is observed. The numbers of deficiencies observed have been increasing from 1982 to date. All the member States are not yet able to reach the target of 25% of foreign ships to be inspected as the minimum target. Reasons could be that they are not getting a sufficient number of ships to be inspected, or has been done by other members of the MOU.

Graph 5.2 : Contribution to Total Effort



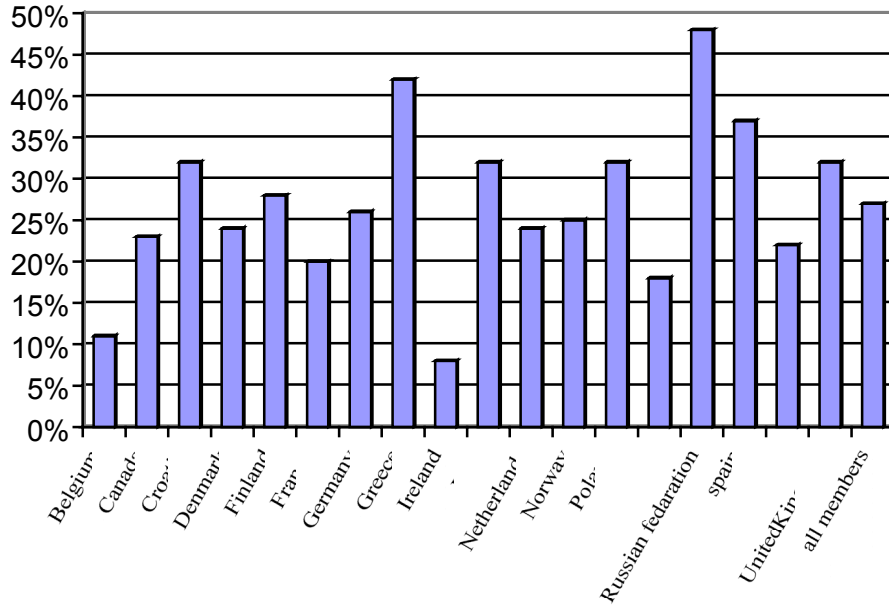
Source: Paris MOU Annual reports 1998

Graph 5.3 : Number of Deficiencies Observed



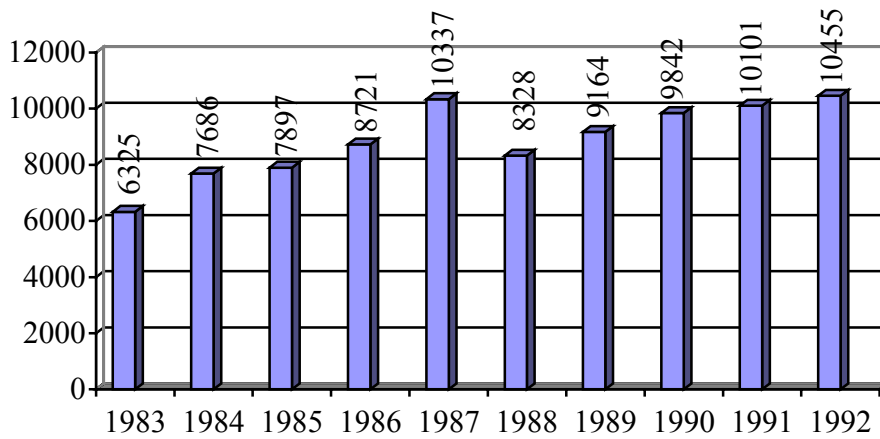
Source Paris MOU Annual Report 1998

Graph 5.4. Inspection by Individual Members as Compared to the Target.



Source: Paris MOU Annual Report 1998

Graph:5.5 : No. of Individual Ships Inspected by Paris MOU



Source Paris MOU Annual Report 1998

Tokyo MOU:

The Memorandum was concluded in Tokyo on 1st December 1993, with 18 maritime authorities as members. The main objective of the Memorandum is to establish an effective port State control regime in the Asia –Pacific region, through co-operation

and harmonization, to eliminate substandard shipping so as to promote maritime safety, to protect the marine environment and to safeguard working and living conditions on board.

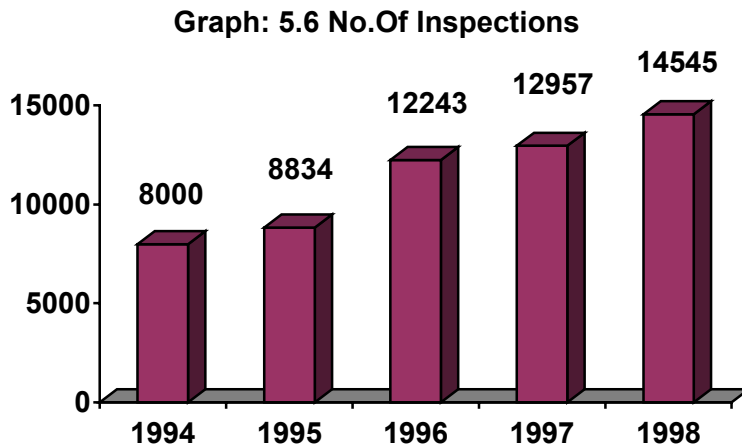
The Tokyo MOU came into effect on 1st April 1994. The text of the Memorandum and relevant instruments are the same as in the Paris MOU. The Paris and Tokyo MOUs had a Joint Ministerial Conference on port State control. It was the first joint Ministerial Conference on 24th March 1998 in Vancouver, Canada, aimed at concentrated action to increase the pressure on sub-standard shipping. The conference was the sixth for the Paris MOU but was the first for the Tokyo MOU members. The highlights of the Conference were:

- 31 signatories to the Paris and Tokyo MOU members attended the Conference
- Representatives from Iceland, the United States, Vietnam, ILO, IMO, Acuerdo de Vina del Mar MOU on port State control, Caribbean MOU on port State control and International Association of Classification Societies,
- Joint Ministerial Declaration on “Tightening the Net”-Inter-regional action to eliminate Sub-standard Shipping was signed.

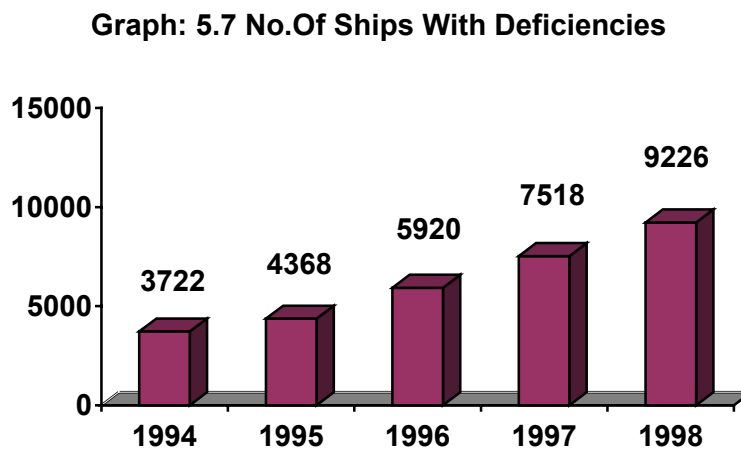
Efforts to link the Tokyo MOU’s APCIS system with the Paris MOU’s own database SIRENAC are in the pipeline. To provide a better indication of the unseaworthy ships the port State control Committee in the Asia Pacific region has decided to develop a computer-based system to target such ships for inspection. The system will be linked to the Asia Pacific Computerized Information System (APCIS), and will assist the 17 member authorities of the Tokyo MOU to identify which ships to inspect. It will generate a figure, indicating the priority, and based on a series of weighted criteria. Something like the target factor for the Paris MOU. The committee also increased the regional inspection percentage from 50 percent to 75 percent (Toh).

Targeting the real substandard ships will help the port State control officer to devote his time more to inspecting substandard ships, rather than inspecting the good ones.

Overview of port State control results of Tokyo MOU: 1994-1998



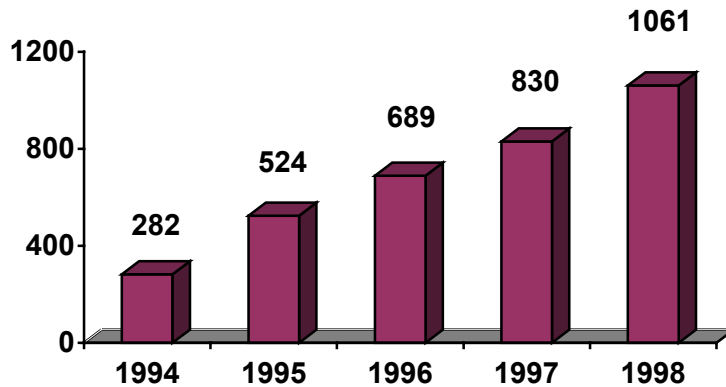
Source: Annual Report 1998 Tokyo MOU



Source: Annual Report 1998 Tokyo MOU

From the information contained in graphs 5.6 to 5.8 we observe that the number of inspections during the four-year period has increased by nearly 70%. The numbers of ships with deficiencies have gone up from 45% to 60%. This may be attributed to either more trained port State control officer or less maintained ships.

Graph: 5.8 No.Of Detentions



Source. Tokyo MOU Annual report 1998

Mediterranean MOU

Following are the commitments by all the members to have an effective and harmonized port State control in the region:

- to take all necessary steps to ratify instruments relevant for the purposes of the Memorandum;
- an effective system of port State control with a view to ensuring that, without discrimination as to flag, foreign merchant ships visiting the ports of its State comply with relevant regulations;
- to achieve within a period of 3 years from the coming into effect of the Memorandum an annual inspection of 15% of the estimated number of individual foreign merchant ships visiting the ports of its state during a period of 12 months.

Relevant instruments are the same as in the Paris MOU, except the two mentioned below:

- the Protocol of 1988 relating to the International convention on Load Lines, 1966;
- the International Convention on tonnage Measurement of Ships, 1969

In the selection of ships, priority is given to the following types of ships:

- ships visiting a port of a State, the authority of which is a signatory to the Memorandum, for the first time or after an absence of 12 months or more;

- ships which have been permitted to leave the port of a State , the Authority of which is a signatory to the Memorandum, on the condition that the deficiencies noted must be rectified within a specified period, upon expiry of such period;
- ships which have been reported by pilots or port authorities as having deficiencies which may prejudice their safe navigation;
- ships whose statutory certificates on the ship's construction and equipment have not been issued in accordance with the relevant instruments;
- ships carrying dangerous or polluting goods, which have failed to report all relevant information concerning the ship particulars, the ship movement and concerning the dangerous or polluting goods being carried to the competent authority of the port and coastal State;
- ships which have been suspended from their class for safety reasons in the course of the preceding six months.

There is nothing mentioned about ships, which have deficiencies that cannot be rectified at the port, and whose flag State is not a member of the Memorandum. It is not clear whether these vessels will be allowed to sail to the next port or not?

Section 6 of the memorandum, regarding training programs and seminars, provides that the authorities will endeavor to establish appropriate training programs and seminars.

It is submitted that training and seminars should be given top priority for port State control officers. Most of the members of the various MOU's lack the expertise required. They need to be trained. Before adopting the Agreement, Maritime Authorities should ensure that they have a minimum number of qualified port State control officers. The other MOU members can train them. Minimum training should be imparted at the earliest.

In this way the standard of inspection will be the same in all members States from the time the MOU starts functioning. At present the States are becoming members and then they decide about the training.

Indian Ocean MOU

The relevant instruments are the same as in the Paris MOU except the Protocol of 1988 relating to the International Convention on Load Lines, 1966. Each authority will achieve within a period of 3 years from the coming into effect of the Memorandum an annual total of inspection corresponding to at least 10% of the estimated number of individual foreign merchant ships visiting the ports during a recent representative period of 12 months. Other details were discussed in chapter 2.

MOU on port State control in the Caribbean Region

Relevant instruments are same as the Paris MOU except the two mentioned below:

- the Protocol of 1988 relating to the International convention on Load Lines, 1966;
- the International Convention on tonnage Measurement of Ships, 1969.

Commitments by all the members to achieve the inspection target:

Apart from establishing and maintaining an effective system of port State control, the States will endeavor to achieve, within a period of 3 years from the coming into effect of the Memorandum, an annual total of inspections corresponding to 15% of the estimated number of ships entering the ports. According to the report six members deposited letters of acceptance in 1996, two in 1997 and one each in 1998 and 1999. Hence each of these States must, within three years of accepting the Caribbean MOU, achieve the target inspection rate of 15% of the annual number of ships calling at its port'.

The MOU was signed in February 1996 at a meeting attended by 14 Caribbean States, but not all have joined it yet because of their lack of Maritime Administration and inspection facilities. The 10 Caribbean countries, which have joined to the MOU, are gradually implementing the necessary reforms to make the system work properly (Renwick).

(Vina Del Mar Agreement 1992) Latin-American Agreement on port State control.

The Maritime Authorities of this Agreement pursue the objectives of the Operative Network of Regional Maritime Co-operation among Maritime Authorities (ROCRAM) strategy adopted in 1989 for the Protection of the Marine environment, and for adoption of an effective ship control system and development of a coordinated system of inspections.

The relevant instruments are the same as are applicable to the Paris MOU except the following:

- the Protocol of 1988 relating to the International convention on Load Lines, 1966;
- the International Convention on tonnage Measurement of Ships, 1969 ;
- the Merchant Shipping (Minimum Standards) Convention, 1976 (ILO Convention No. 147) (ILO 147).

The ILO 147 is not included, which is for the carrying out of inspections of working and living condition under port State control. No mention about the training programs and seminars for port State control officers.

West and Central African Region

The signatory meeting for the establishment of a port State control agreement took place in October 1999. Participating in the meeting were delegations from 19 States, of which 16 signed the MOU. The first meeting of the port State control Committee has been scheduled for October 2000.

This is the only Memorandum which has emphasized and noted the established training methods and programs for port State control officers and the urgent need to implement a training program for the port State control officers in the region.

The relevant instruments are all the same as are listed for the Paris MOU, except the following:

- the Protocol of 1988 relating to the International convention on Load Lines, 1966;

- the Memorandum has in detail regarding inspection on board ships under the Merchant Shipping (Minimum Standards) Convention, 1976 (ILO Convention 147)

Commitments

Most of the commitments are same as in other MOU's. The target is 15% of the estimated number of foreign ships visiting the ports in the period of 12 months, within 3 years after the Memorandum comes into effect.

A comparative table of different MOU's is appended in **Annex 9**. Source IMO news (1). 2000

5.1.2 Regions yet to establish MOU

After the signing of Black Sea MOU the only region left is the Persian Gulf region. At a meeting organized by the Marine Emergency Mutual aid Center Bahrain, in co-operation with the Gulf Co-operation Council and IMO, a first draft of a regional port State control for the ROPME (Regional Organization for the Protection of the Marine Environment) sea area and the complementary training programs for its implementation was discussed in July 1999 in Manama, at Bahrain.

Delegates from the following States attended the meeting:

Bahrain	Kuwait	Oman
Qatar	SaudiArabia	United Arab Emirates.

A second meeting is expected to see the signature of a MOU on port State control. According to David Gibbons, executive director of Dubai Ports Authority a MOU on the implementation of port State control is being negotiated between the UAE, Iran, Bahrain, Oman, Qatar and Saudi Arabia. Iran is already a member of the Indian Ocean MOU and took the initiation for Gulf countries to take positive steps towards an agreement. Gibbons said that, without agreement, sub-standard vessels from all over the world would end up in the region, and there were already many such ships present ("Gulf States-----").

Delegates from Bulgaria, Georgia, Romania, the Russian Federation, Turkey and the Ukraine attended a first preparatory meeting for the establishment of a port State control regime in the Black Sea region which took place in Varna, Bulgaria, from 14th to 17th September 1999. The meeting agreed a draft MOU and a related draft-training program was considered (Hoppe). It is also observed that most of the States in the Central America are not yet members of any MOU.

5.1.3 Improvements in port State control after introduction of MOU's

Table No 5A: Paris MOU inspection figures 1992-1998

Year	Individual ships	Inspections	Deficiencies	Detentions	Detention %
1992	10,455	14,783	27,136	588	5.6
1993	11,252	17,294	43,071	926	8.2
1994	10,694	16,964	53,210	1597	14.9
1995	10,563	16,381	54,451	1837	17.4
1996	10,256	16,070	53,967	1719	16.8
1997	10,719	16,813	53,311	1624	15.2
1998	11,168	17,643	57,831	1598	14.3

Source: Bimco review 2000

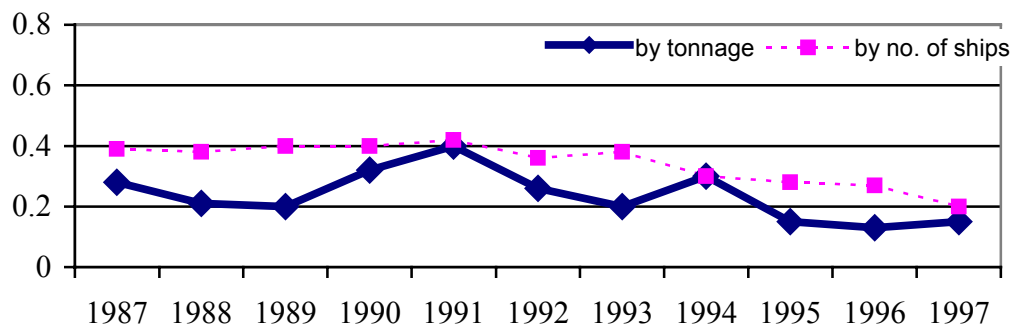
There has been a substantial rise in the number of deficiencies and subsequent detentions. In 1992, 588 ships were detained and it went to 1837 in 1995. The positive effect of port State control is clearly seen as the number of inspection has increased, but the number of detentions has come down in 1997 and 1998.

Targeting of particular types of vessels also increases after accidents take place. As it happened after the *Estonia*, passenger ships and ferries were targeted. This can be seen by the number of detentions, which increased in cases of passenger ships. Although the number of inspections of passenger ships and ferries remained the same as in 1993, the number of detentions went up to 331 vessels, almost triple the numbers in 1993.

After the *Erika* incident, port State control authorities targeted most of the old tankers. It is because of a human nature to be more careful and go into details, after such accidents. It is also because of the public pressure and the media pressure after tanker causality. Most of the vessels targeted were having some deficiencies.

From graph 5.9 below we observe that the number of ships being lost at sea has come down in the last four years from 1994 to 1997. This may be due to port State control being more effective, and that substandard ships have no place to go except the scrap yard.

Graph 5.9 : Total Losses as a Percentage of Shipping Afloat (ships over 500 grt)



Source: ILU/IUMI 1998

5.2 Role of IMO in a Global MOU on port State control

As we see from the different regional memoranda, all members have committed themselves to comply with IMO conventions to eliminate substandard ships. One of the goals of the organization is to ensure the consistent and effective implementation of IMO instruments globally. Through Resolution A.777 (18) and A.900 (21), it reaffirmed the contents of resolution A.500 (XII) and thus the assignment of the highest priority in promoting the implementation of relevant international instruments for the improvement of maritime safety and pollution prevention.

The ultimate effectiveness of any instruments depends *inter alia* upon all States, and can be achieved in the following stages:

- becoming a party to the IMO instruments;
- implementing them fully and effectively;
- enforcing them rigorously; and
- reporting to the Organization, as required.

The IMO urges governments in their efforts to improve safety of life at sea and to protect the marine environment and to carry out, at regular intervals at their discretion, a self assessment of their capabilities and performance in giving full and complete effect to the various instruments to which they are party. The procedure for port State control resolution A.787(19) adopted on 23rd November 1995, was amended by Resolution A.882(21) adopted on 25th November 1999.

The following are the main changes made in the amendments

- the SOLAS Protocol 1988 and Load Line Protocol 1988 have been included;
- when a ship is detained, the affect on the normal schedule of the departure of the ship will not be considered;
- when examining 1969 Tonnage certificates, the port State control officer's attention is drawn to the guidelines for port State control under the 1969 Tonnage Convention. The tonnage is important to determine which regulations apply to a specific ship;
- guidelines for port State control related to the ISM Code have been included;
- suspension of inspection.
- procedures for rectification of deficiencies and release after detention;
- the company or its representative has a right of appeal against a detention imposed by the authority of a port. The appeal should not cause the detention to be suspended. The port State control officer should properly inform the Master of the right of appeal;
- the port State control officer in exceptional circumstances, where a result of a detailed inspection ship and its equipment are found to be substandard, may suspend the inspection.

To suspend the inspection, the judgement of the officer is very important. It should not be misused. He should not suspend the inspection after noticing few detainable deficiencies. This new section may have been included as some shipowners were using port State control as a tool for making their defect list. If a ship has a defect list of say 30 to 40, what a port State control officer is actually doing is the job of a Superintendent. Now with this section included he can take a decision for suspending the inspection. But before suspending he should record all the detainable deficiencies he has noted. He should notify all the concerned parties about the detention and suspension without delay.

The Sub-Committee on Flag State implementation during its 8th Session established a correspondence group on certain aspects of port State control. Issues to be considered by the correspondence group includes:

- to improve the reporting of detentions by port States control to flag States; and
- mechanisms for constructive and timely dialogue between the flag States and port States on port State control intervention (IMO, 2000_a).

For harmonization, the activities planned by IMO include workshops at IMO headquarters for the secretaries and directors of existing port State control agreements. IMO has developed a global project to provide assistance to emerging port State control agreements in order to:

- facilitate the harmonization of procedures;
- inter-regional co-operation; and
- exchange of information between the various agreements.

With the information available as a result of regional co-operation in port State control, IMO is advancing towards a change of attitude within the shipping industry, where a long tradition of secrecy too often results in problems being hidden and ignored rather than revealed and solved (Plaza 1999_a). The IMO can play a leading role in establishing a Global MOU. By Global MOU it is meant that all the MOU's establish a harmonized system of port State control and a network can be formed. All the data can be at a central place, say IMO Headquarters, and IMO can

coordinate with different MOU's, great amount of coordination is required to achieve this.

Equasis: the author feels that this is a step towards globalization of data information, which can later be utilized for the global MOU on port State control. The Maritime Administrations of France, United Kingdom, Spain, Singapore and the European Commission signed a Memorandum of Understanding (MOU) on the setting up of the Equasis information system on 28th January 2000. The twin aims of Equasis are transparency and accessibility

The purpose of the Memorandum is to set up an effective operation of a system on quality and safety related information of the world's merchant fleet. In the first phase, Equasis will contain information from Paris MOU, Tokyo MOU and US Coast Guard on port State control and detentions, also information provided by the industry. It will be more of a data information center, in one place and would be a first step towards globalization of data.

5.3 Elements for harmonized regional procedures:

5.3.1 Training as per IMO model course

To achieve the desired result of port State control depends, much on the port State control officer, and how good may be the system of information and administrative mechanism. If the officer who is carrying out the inspection is not to the mark, the whole concept of port State control will be lost. The training itself is not sufficient for a good port State control officer. He or she should have a good sea going background and relevant experience.

Sometimes the time available to him is not enough to carry out a complete inspection. He should be able to judge and take a decision on the spot whether a detailed inspection is required or not. Sometimes he has to take a decision about detention. There are certain deficiencies for which the port State control officer has to take a decision whether to issue a detention order or make it just deficiencies. In some States, if the ship is detained, re inspection fees charged are quite high.

The IMO has developed a model course to assist maritime training institutes and their training staff in organizing and introducing new training courses or in enhancing, updating or supplementing existing training material, where the quality and effectiveness of the training courses may thereby be improved.

The port State control officer should be conversant with all the Conventions, applicable to a particular type of ship. He should also be aware of the Conventions ratified by his State, as only those will be applicable while carrying out the inspection. Any wrongful detention will be liable for compensation. As well, it will give a bad name for the port State. The credibility of the port State will be lost, if a ship is unduly detained.

The Tokyo and Paris MOUs have been consistent in providing training to port State control officers. The continuous implementation of training activities and technical cooperation program has played a very important role in promoting port State control activities in the region. Ever since the establishment of the Tokyo MOU, the training of port State control officers have been given high priority. It has endeavored to provide and enlarge technical cooperation program within the region.

5.3.2 Regional MOU's meetings

To eliminate substandard ships from the ocean, what we need is a concerted global effort. To achieve this, co-operation and coordination is required among all the MOU's on port State control. Some MOU's may need more help from the others, who are more developed. Meetings among the various MOU's may be the right direction to achieve this.

The Tokyo and Paris MOU did have a joint Ministerial meeting. The trusts among the MOU's have to be built up so as to recognize the inspection carried out by the other MOU. At present, even the inspection carried out by the two most developed MOU's, Paris and Tokyo are not recognized by each other. That means if the ship is inspected by a Tokyo MOU member and if it visits a port in one of the member State of the Paris MOU, she could be subjected to port State control inspection. All what result from this, is more expenditure and more manpower.

5.3.3 Qualified and sufficient port State control officers.

The success of any port State control regime depends on the officer who is carrying out the inspection. The ship's identification as a seaworthy ship or not is to be decided by him. A wrong decision can lead to arbitration as well as monetary loss to the owner, delay in the schedule of the ship and a bad name for the port.

To exercise effective and fair port State control, emphasis should be placed on the competence and ability of the surveyors carrying out the inspection. The number of port State control officers required is also important. It will depend on the ship traffic in that particular region. A good inspection can only be carried out if the officer concerned is not overworked.

5.4 Need for a Global MOU.

At present we have seven MOU's operating in the World, Black Sea MOU which is the eighth MOU was signed in April 2000. Now only one more MOU remains to be signed. Seven MOU's operating at different places will have around 109 members. The level of expertise and competence of the different Administrations is different. Some of them don't even have any trained port State control officers and the establishment to carry out flag State duties. They have delegated all the Statutory work to classification societies. With this scenario there is unfortunately, bound to be different levels of port State control inspection in each region.

For harmonization the standard of inspection should be the same all over. To achieve this, first the MOU would have to have harmonization among all the members and then all MOU's have to have harmonization.

When there is harmonization on a global basis, what will be achieved is listed below:

- when all the MOU's are linked together, and the data is stored at one place, it will be easier to target the substandard ship. What happens now, if suppose a vessel is allowed to sail from one port, with certain deficiencies. According to the procedures the port State control would have to inform the authorities of the next port of call. Now suppose for some reason the next port of call of the ship is not informed. The ship may not have rectified the deficiencies, or may declare a

wrong port of call to the authorities, or even divert the vessel to a different port. If the data is available to the port, it is updated by the port State control authorities. After the carrying out of the inspection he can have access and keep a check on the ship on arrival regardless of whichever port the vessel visits;

- once all the Memoranda have trained their port State control officer, the standard of inspection will be the same to some extent;
- if a ship is inspected by one MOU and she sails to a region where another MOU is in force, the port State control officer of that MOU will also board the ship, may be within a span of a month. If there is a link between the MOU's the need to re-inspect a ship after a month will not be there;
- the cost of MOU's will come down with harmonization, which is a important factor for some of the developing States;
- the manpower saved by harmonizing the MOU's inspection, can be very well utilized for flag State implementation, which indirectly will benefit the quality of ships, and may be less port State control detention will follow. There will be more monetary benefit for the shipowner by not having his ship detained;
- there will be more time for the ship's staff to channel their energies into more productive work, than to prepare the ship for too many inspections. The argument against this can be that ships should always be ready for inspection, as they are supposed to be always seaworthy. But as any seafarer will testify, the experience is that for any inspection on board ship, the equipment's are always tried out, before the surveyor boards the ship, by the ship staff;
- targeting of substandard ships will be easier;
- the operator of the substandard ship will have no place to go, once all the ports are linked to a common database.

Chapter 6

Conclusion and Recommendation

“The changes that are taking place in this industry offer us tremendous advantages and opportunities to improve safety and to reduce pollution. Our technical knowledge is greater than ever before and the amount of information at our disposal is growing all the time. If we use this wisely we should be able to work out why accidents occur and take steps to prevent them. We should be able to use other data to identify sub-standard ships and operators and then to target them for impossible for these menaces to operate at all”(William A. O’ Neil).

In the previous chapters what the author has wished to express is about the problems of substandard ships, which exist all over. Even port State control is not always able to identify ships like the *Erika*, operating mainly in Europe, which has the most well established regime of port State control inspections.

What port State is doing at present is deterring the operators who are more sincere in their operation of ships. The owners who wish to ply their substandard ships always find some means to operate them. But this does not mean that the control should not be there. May be there would have been more *Erika* like tragedies if there was no port State control. Port State may prevent some needless loss of lives and may reduce marine pollution. It is no substitute for effective flag State control, and on its own, is unable to eliminate substandard ships.

To avoid accident instances like the *Erika* and *Leader L*, what is required is that all concerned parties such as owners, flag States, classification societies, insurers and charterers should fulfil their respective responsibilities:

- flag States should have a commitment to comply with the IMO requirements, such as implementation of all Conventions, on ships flying its flag.
- substandard ships cannot be eliminated without the cooperation of those who are responsible of certifying the ship’s seaworthiness. Classification societies are in a competitive world, trying to get business at any cost. The classification societies are the ones responsible for issuing the statutory certificates, in most of

the States. IACS may have to play a major role to see that the standards of the member societies are not eroded. Surveyors should be well trained and committed to their jobs. Ultimately, a lot depends on the owners. If the owner wishes to maintain his ship to the best standard, no one will stop him, but at times due to commitments to cargo owners and others short cuts are taken even by good operators. Owners should give safety the highest priority. Charterers should charter ships, which are well maintained.

Port State control has a long way to go in their commitment to eradicate substandard ships. More co-operation and exchange of data is required. The system must also be more efficient. It should not be just to fulfil the annual target, and be content with a few detentions. Detentions of ship statistics should not be regarded as an efficient port State control system. States experienced in maritime Administration should assist other States to establish a port State control system, to get an enhanced and better-targeted port State control and reduction of the number of inspection of ships of good ship operators.

Effective port State control leads to shipowners being compelled to maintain their ships for fear of detention. It helps in safeguarding the safety of the seafarer lives and the environment, and identifies substandard ships. It also helps to identify flag States that fail to implement IMO and internationally agreed minimum standards, and drives out such ships to other areas where port State control is not effective. It puts pressure on substandard ship's operators.

We finally achieve nothing if we allow substandard ships to operate in some other region. Trying to get rid of the problem in one area and creating a problem in another, because the other State is not equipped to identify the substandard ships is not the solution.

If we are serious about eradicating substandard ships and protecting our environment we have to cooperate and have faith in other's inspection reports and strive for a harmonized system to achieve more in less time.

In order to keep track of a ship, which has been inspected, and allowed to sail to rectify the outstanding deficiencies at next port, authorities are required to inform the next port of call. Sometimes it may happen that, due to some unavoidable reason the authorities are not informed. In such a scenario the Master can easily deny having been subjected to any port State inspection at the last port. So in order to keep track, a port State control record book should be made mandatory by the MOU's so that all-important entries are made regarding the inspection.

The following are the advantages of having a global MOU:

With global MOU expenses can be reduced means better cost benefit, can do with a less staff, need not inspect all the ships visiting port, if already done by another MOU member. Ship staff has more time to attend to urgent needs on arrival at port, rather than to follow port State control officer. Leads to more cooperation and interaction among the MOU's. Identification of substandard ship will be easier. There will be no place for the substandard ship to go, if all the MOU's are having the information and data. This way we can achieve more harmonized system of inspection.

What we need to do to achieve the above are set out below:

Commitment from all the members of the various MOU's. Well trained and experienced port State control officers. Harmonization of inspection procedure among all the MOU's. To start with, control officers from one region can travel to the neighboring States to carry out port State control together with a local officer, so as to build confidence in the inspection report. Information sharing among all the MOU's and acceptance of other MOU's inspection report.

What is happening now is that the owner of the ship is not penalized much. What he loses is some days to rectify the defects, and the cost to comply with the defects pointed out by the port State control officer and inspection fees if the ship is detained. If the penalty imposed is made more stringent; if the ship is found to be substandard, and the ship is not allowed to discharge cargo or to load cargo, the shipowners will be more careful.

The other area, which has to be looked into, is the flag State. Flag States who do not have a proper maritime Administration have to develop one, so as to make the flag State stronger. Each State may have to identify their shortcomings. Some may have to reorganize their structure keeping in mind the new responsibility of port State control.

In India, to get a more effective port State control, more sub offices may have to be opened, so as to cover all the region. For instance in a State like Gujarat shipping activities are increasing. There may also be a need to appoint more Surveyors.

To analyze the need for port State control or whether port State control is really effective some points have already been covered in the previous chapters, but if we go by the statistics available on port State control we observe that most ships, which are found to have deficiencies or are being detained are registered with flags of convenience or open registries. Some of them even do not have proper administration. They must be eliminated to eradicate substandard ships. Also the spirit of port State control can be converted into financial gain as a source of income by those who allow substandard ships to ply thereby causing unethical competition between well kept ships where the cost of operation is higher than substandard ships thereby forcing the need for port State control.

To have an exchange of information between MOU's and member States, the database to be developed should be compatible with other systems around the world to be effective and improve communication between member States.

The opinions of the Secretaries of various existing MOU's and others was solicited through a questionnaire. The following points were raised:

- What is the effectiveness of port State control in eradicating substandard ships, after the various MOU's came into existence.
- Does cooperation between MOU's help in eradicating substandard ships?
- Will exchange of data between all MOU's help in eradicating substandard ships?
- Establishing of a common database.

- Is there a need for a Global MOU to achieve common standard all over the globe.

The replies received have been quite encouraging. Copies of the replies are appended in **Annex 9**. A summary of the opinion of the Secretaries and Chairman of the various MOU's is set out below:

- The MOU's on port State control have indeed helped in eradicating substandard ships.
- Exchange of port State control inspection information will provide a tool for tracking substandard ships and targeting ships for inspection.
- The establishment of common database may not be feasible in the present situation, linking of database could be thought off.
- A Global MOU can be achieved by linking all the databases. There need not be a separate organization, it should be within the framework of IMO.

Harmonization and convergence of port State control is even being thought of by the IMO. Speaking at the Fourth Port State Control Conference held in London, Mr. Plaza stated that bringing the various existing regional agreements in line with each other will create a "global mosaic" and ensure that substandard ships find it harder to operate (Reyes, 2000_b).

A Global MOU on port State control need not be a separate Convention because that would require a long procedure for ratification. What is required is an understanding between various MOU's, and cooperation and coordination to achieve the goal of eradication of substandard ships for safer ships and cleaner oceans.

Bibliographical References

ABS proposes tougher classification standards for ageing vessels (2000, February 4). ABS Press Release. Retrieved April 24, 00 from the World Wide Web: www.eGLE.org/news/PRESS/erica.html

Boisson, P. (1999). Safety at Sea Policies .Regualtion and International law. Paris. Bureau Veritus.

Bousen, C. (1999_a, October 22). Wallem head questions effectiveness of ISM Code. Lloyd's List, p. 5

Bousen, C, & Ion, E. (1999_b, February). Port State Control-Inspecting the Inspectors. Lloyd's List Maritime Asia, p.11-13

Bray, J. (2000, March 22). Heidenreich proposes radical rules shake up. Lloyd's List, p.1.

Carlsson, L. (2000, February 2). Plan to make oil tanker safer. Shipping Times, p.1-4

Christensen, C. (1993). Lessons to be learned from the Scandinavian Star disaster. The Safety at Sea and Marine Electronics Conference, paper 7, (pp.1-13). Redhill, Surrey: Industrial & Marine Publications.

Competing societies' damaging ISM effectiveness. (1999, November 12). Lloyd's List, p.5.

Cowley, J. (1989_a). The International Maritime and National Administration. Trans IMarE, 101, 113-139.

Cowley, J (1995_b, March/April). Development Direction: Maritime Legislation. Proceedings of the Marine Safety Council, 1-7

DGS. (1999). Shipping Manual. Retrieved 14 October, 1999 from the World Wide Web www.dgshipping.com/dgship/shipping_manual14.htm

DGS. (2000). Status of Port State and Flag State control. Mumbai. (Unpublished).

Douglas, B. (1993, September). Port State control Vs flag State control: UK Government position. Marine Policy, p. 367-369

European Commission News Release. (2000, March 21) The Commission proposes radical measures to prevent oil pollution disasters in European Coastline. Reuters.

Flag State responsibility to eliminate substandard shipping. (1999, February). Marine Engineers Review, 8.

Gray, T. (2000_a, January 25). Erica Disaster: O' Neil says slow ahead as European Union acts. Lloyd's List, p. 1.

Gray, T. (2000_b, January 14). Intertanko threat to shun classification society. Lloyd's List, p.1.

Gray, T. (2000_c, February 3). Tankers: Erica disaster may put squeeze on older ships. Lloyd's List, p. 16.

Gray, T. (2000_d, March3). Brussels: Palacio defends Erica initiative. Lloyd'sList, p.1.

Grey, M. (1999, November 19). Honduras weeds out 750 vessels. Lloyd's List, p.1.

Gulf States move closer to PSC. (2000, February 1). Fairplay, p.16.

Hawkins, J. (1999). Final Report Safer Shipping in the Asia Pacific Region Project (Phase 1), (p. 40-50). Singapore, Asia Pacific Economic Cooperation Secretariat.

Healey, C. (1995, Mar/Apr.). Industry must be involved: Proceedings of the Marine Safety Council, p. 28-30

Hoppe, H. (2000). Port state Control –an update on IMO'S work. IMO News (1), P. 9 -14.

Huibers, E. (1995, Mar/Apr.). Regional Commitment has International importance. Proceedings of the Marine Safety council, p.11-15.

IACS. (2000, February 17). Erica: IACS Council Takes Courageous Action. IACS Press Release Retrieved on 11 April 2000 from:
<http://www.iacs.org.uk/pressre1/index>.

IACS. (1998, March). Tightening the net. Remarks by IACS Chairman Tor-Christian Mathisen to the First Joint Ministerial Conference of the Paris and Tokyo MOU on port State control. IACS Briefing No. 3.

IACS. (1996, March). 1995 Review. IACS Briefing No. 1.

IACS. (1996, July). 1995 Port State Control. IACS Briefing No. 2.

International Maritime Organization. (1992). Assembly Resolution A. 682 (17): Regional Co-operation in the Control_of Ships and Discharges. Assembly resolutions and other decisions (resolutions 680-732): Seventeenth Session, 28 October-8 November 1991, London. (pp.17-18) London: Author.

International Maritime Organization. (1996). Assembly Resolution A. 787(19): Procedures for port States control. Assembly resolutions and other decisions (resolutions 780-838): Nineteenth Session, 13-23 November 1995, London. (p.14-65) London: Author.

International Maritime Organization. (1998). Assembly Resolution A. 847(20). Guidelines to assist flag States in the implementation of IMO instruments. Assembly resolutions and other decisions (resolutions 839-873): Twentieth Session, 17-27 November 1997, London. (pp.36-43) London: Author.

International Maritime Organization. (2000). Assembly Resolution A. 882(21). Amendments to the procedure for Port State Control (Resolution A. 787(19)). Assembly resolutions and other decisions (resolutions 874-901): Twenty-First Session, 15-26 November 1999, London (pp.36-43) London: Author.

Insight. (1999, September 20). Quality network concept begins to breach out. Lloyd's List, p.7.

International Maritime Organization. (2000_a). Flag State performance self-assessment-criteria and performance standards agreed. Sub-Committee on Flag State Implementation, 8th session, 24-28 January 2000. London: Author.

Joshi, R. (1999, September 22). Intertanko acts on flag quality. Lloyd's List, p.5.

Kasoulides, G.C. (1988). Port State Control and Jurisdiction. Evolution of the Port State Regime. London: Martinus Nijhoff.

Keselji, T. (1999). Port State Jurisdiction in Respect of Pollution from Ships: The 1982 United Nations Convention on the Law of the Sea and the MOU. Marine Affairs, 30, (2), p. 141-150.

Laundry, M. (1995, Mar/Apr.). Targeting a measuring tool that works. Proceedings of the Marine Safety Council, p. 9.

Leader. (2000, February 21). IACS makes the right response. Lloyd's List, p. 5.

MacLaughlin, J. (2000, February 7). Classification: ABS boss to unveil scrutiny proposals. Lloyd's List, p.1.

Mathiesen, T.C. (1998). Tightening the Net: Remarks by IACS Chairman to the First Joint Ministerial Conference of the Paris & Tokyo MOU on Port State Control. IACS Briefing (6), p. 24-29.

Mitsuo A. (1990). Class Societies and International Association of Classification Societies (IACS). Lecture handout. World Maritime University, Malmö, Sweden.

Morris, J. (1996). Flag of Convenience give owner a paper refuge. Retrieved 2 February, 2000 from the World Wide Web – www.chron.com/content/international/maritime/1996/08/22/part5.html

Mukherjee, P. (1999). Implementation of IMO Conventions through National Legislation. Lecture handout. World Maritime University, Malmö, Sweden.

O'Neil, W. (1999, May 24). Speech given at the Sea Trade Awards Ceremony Dinner, London, 24th May 1999. Retrieved 29 September 1999 from the World Wide Web: <http://www.imo.org/imo/speech-1/seatrad3.htm>

O'Neil, W. (1999_a). Message given at the World Maritime Day on the IMO and the New Millennium. IMO News, (3), 21-22.

O'Neil, W. (1999, May 17). Speech given at the Bimco General Meeting on the Quality Shipping: IMO's position, Lisbon, Portugal, 17-19 May 1999. Retrieved 29 September 1999 from the World Wide Web: <http://www/imo.org/imo/speech-1/bimco2.htm>

O'Neil, W. (2000_b, March 27). Speech given at the Hong Kong Shipowners Association Luncheon on the Shipping Safety in a changing world, Hong Kong, 27th March 2000. Retrieved 11 April 2000 from the World Wide Web: <http://www.imo.org/imo/speech-1/hongkong.htm>

O'Neil, W. (2000 February 22). Remarks given at the Panama MaritimeV, Inaugral session, Panama City, Panama 22 February 2000. Retrieved 11 April 2000 from the World Wide Web: <http://www.imo.org/imo/speech-1/panam2.htm>

O'Neil, W. (2000 February 23-25). Speech given at the Panama MaritimeV, Panama City, Panama 23-25 February 2000. Retrieved 11 April 2000 from the World Wide Web: <http://www.imo.org/imo/speech-1/panam2.htm>

Osler, D. (2000_d, February 25). Troubled history of Erica sister reveals spills and corrosion. Lloyd's List, p.18.

Osler, D. (2000_b, February 24). RiINA in rust bucket shame as ship is detained. Lloyd's List, p.1.

Osler, D. (2000_a, April 7). Leader L survey riddle. Lloyd's List, p.1.

Osler, D. (1999_c, October 22). Plush new head quarters may prove a monumental mistake. Lloyd's List, p.2

Osler, D. (1999_e, September 23). ISM Compliance: A Lloyd's List special report. Get to grips, says ABS president, Lloyd's List, p.10.

Paris MOU Secretariat. (1999_a, October 25). Serious defects still being found on bulk carriers after Paris MOU campaign: "No room for complacency" says Cubbin. The Hague: Author.

Paris MOU Secretariat. (1999_b, June). 28th Port State Control seminar. Port State control officers meet in Antwerp. The Hague: Author

Payer, H. (1998, May). ISM Code. The Future Impact. Safety at Sea International (350), p. 12-14

Payoyo, P. (1994). Implementation of International Conventions through PSC. An Assessment. Marine Policy, 18, (5), p. 379-392.

Plaza, F. (1999_a). Flag State implementation and port State control. The work of IMO. Lecture handout. World Maritime University, Malmö, Sweden.

Plaza, F. (1999_b). Port State Control: An Update.
www.imo.org/imo/news/3&497/psc.html

Port State Control: Europe's Worst Ship? Trouble brewing at port State control. (1996, August 8). Fairplay, 328 (5879), p.18-19.

Renwick, D. (2000, April 20). New member Cuba plays part in port State control. Lloyd's List. p.5.

Reyes, B. (2000_a, March 27). Spanish owners join tanker revolt. Lloyd's List, p.3.

Reyes, B. (2000_b, July 11). IMO urges convergence of port State control systems. Lloyd's List, p.1.

Reilly, E. (1995). Class Societies Welcome Partnership Role. Proceedings of the Marine Safety Council. March /April Issue, p.51.

Schiferli, R. (2000). Working towards ensuring ISM Compliance. BIMCO Review, 2000, p. 96-99. London.

Smith, A (1999, October 25). Regulation and shipping facing choppy seas ahead. Lloyd List, p. 3.

Spurrier, A. (2000_a, January 15). Erica owner riddle grows. Lloyd's List, p.1.

Spurrier, A. (2000_b, January 18). Gayssot in call for FOC tanker ban. Lloyd's List, p.3.

Spurrier, A. (2000, January 21). Erica disaster. France seeks harsher fines for polluters. Lloyd's List, p.1.

Stares, J. (1999, September 27). Japan is vindictive says Panama Chief. Lloyd's List, p.1.

The Indian Ocean Memorandum of Understanding on port State control (Indian Ocean MOU) signed in Pretoria (South Africa) on 5th June 1996. Lloyd's of London Press. 1998.

The Paris Memorandum Secretariat (1990). Paris Memorandum of Understanding on port State control (Paris MOU), adopted in Paris on 1st July 1982. London: Lloyd's of London Press. 1998

The Latin American agreement (Acuerdo de Vina Del Mar agreement on port State control) signed in Vina Del Mar in Chile in November 1992. Lloyd's of London Press. 1995.

The Memorandum of Understanding for the West and Central African Region, signed in Abuja (Nigeria) on 22nd October 1999. (unpublished).

The Memorandum of Understanding on port State control in the Asia-Pacific Region (Tokyo MOU), signed in Tokyo (Japan) on 2nd December 1993. Lloyd's of London Press. 1999.

The Memorandum of Understanding on port State control in the Mediterranean Region (Mediterranean MOU), signed in Valletta (Malta) on 11th July 1997. Lloyd's of London Press. 1999.

The Memorandum of Understanding on port State control in the Caribbean Region (Caribbean MOU), signed in Christchurch (Barbados) on 9th February 1996. Lloyd's of London Press. 1996.

The Sea. (2000_a, March/April). Erica disaster causes storm in shipping. (144), p.1.

The Sea. (2000_b, March/April). Corrosion may be behind loss of oil tanker. (144), p.2.

Tinsley, D. (1999, March 3). Port State control crackdown. Inspection blitz on below par bulkers. Lloyd's List, p.1-2.

The Swedish Club (1999, December 1). Swedish Club says ISM Code show a thirty percent claims improvement in three years. Retrieved from the World Wide Web: <http://www/swedishclub.com/corporateinformation/media/991201.htm>

Toh, A (2000, February 28). Port States to develop ship inspection system. The Shipping Times., p1. Retrieved from the World Wide Web 28 February 2000, [www.business times.com sg/shipping times](http://www.business.times.com.sg/shipping%20times).

Tokyo MOU Secretariat (1999). Results of concentrated inspection campaign on ISM Code compliance. Tokyo: Author

Tokyo MOU Secretariat. (1998) Annual report 1997-1998. Tokyo: Author

Ulstrup, A. (2000). Procedures for the Port State Control of Ships, etc. Lecture handout, World Maritime University, Malmö, Sweden.

United Nations. (1999). Oceans and the law of the Sea: Fifty Third Sessions: Agenda item 38(a). New York: United Nations.

United Nations Convention on the Law of the Sea, New York, United Nations. (1982).

UK P&I club. (1999). Port State Control detentions-India. Bulletin 109-9/99. Retrieved 14 July 2000 from the World Wide Web: <http://www.ukpandi.com/3pib/3pib99.html>.

West African Shipping must stand on its own feet.(1999, October 1). Lloyd's List
p.7.

When type approval means/rubber stamped. (2000, March 2). Fairplay, p. 20-22.

Annex 1

Details of the IMO Conventions ratified by the IOMOU Member States.

	IMO Convention 48	IMO amendments 91	IMO amendments 93	SOLAS Convention 74	SOLAS Protocol 78	SOLAS Protocol 88	Stockholm Agreement 96	LOAD LINES Convention 66	LOAD LINES Protocol 88	TONNAGE Convention 69	COLREG Convention 72	CSC Convention 72	CSC amendments 93	SFV Protocol 93	STCW Convention 78	STCW- F Convention 95	SAR Convention 79	STP Agreement
Australia	*	*	*	*	*	*		*	*	*	*	*	*		*		*	
Bangladesh	*			*				*		*	*				*			*
Djibouti	*			*				*		*	*				*			
Eritrea	*			*				*		*	*				*			
Ethiopia	*			*	*			*		*	*				*			
India	*	*	*	*	*			*		*	*	*			*			*
Iran	*		*	*				*		*	*				*		*	
Kenya	*							*		*	*				*		*	
Maldives	*			*				*		*	*				*			
Mauritius	*		*	*				*		*	*				*			
Mozambique	*			*				*		*	*				*		*	
Myanmar	*			*	*			*		*	*				*			
Seychelles	*	*		*	*	*		*	*	*	*				*			
South Africa	*			*	*			*		*	*	*			*		*	
Sri Lanka	*		*	*				*		*	*				*			*
Sudan	*			*				*							*			
Tanzania	*							*							*			
Yemen	*			*				*			*	*			*			*

	STP Protocol 73	INMARSAT Convention 76	INMARSAT amendments 94	INMARSAT OA 76	INMARSAT OA amendments 94	FACILITATION Convention 65	MARPOL 73/78 (Annex I/II)	MARPOL 73/78 (Annex III)	MARPOL 73/78 (Annex IV)	MARPOL 73/78 (Annex V)	MARPOL Protocol 97 (Annex VI)	LC Convention 72	LC Protocol 96	INTERVENTION Convention 69	INTERVENTION Protocol 73	CLC Convention 69	CLC Convention 76	CLC Protocol 92
Australia		*	*	*	*	*	*	*		*		*		*	*	*	*	*
Bangladesh	*	*		*										*				
Djibouti														*		*		
Eritrea																		
Ethiopia																		
India	*	*		*		*	*									*	*	
Iran		*		*		*						*		*	*			
Kenya							*	*	*	*		*				*		
Maldives																*	*	
Mauritius		*		*		*	*	*	*	*						*	*	
Mozambique		*		*												*		
Myanmar							*											
Seychelles						*		*				*				*		
South Africa		*	*	*	*		*	*		*		*		*		*		
Sri Lanka	*	*		*		*	*	*	*	*				*	*	*		
Sudan																		
Tanzania																		
Yemen	*					*								*	*	*		

	FUND Convention 71	FUND protocol 76	FUND Protocol 92	NUCLEAR Convention 71	PAL Convention 74	PAL P	PAL Protocol 90	LLMC Convention 76	LLMC Protocol 96	SUAConvention 88	SUA Protocol 88	SALVAGE Convention 89	OPRC Convention 90	HNS convention 96				
Australia	*	*	*					*		*	*	*	*					
Bangladesh																		
Djibouti	*												*					
Eritrea																		
Ethiopia																		
India	*	*										*	*					
Iran												*	*					
Kenya	*																	
Maldives	*																	
Mauritius	*	*																
Mozambique	*																	
Myanmar																		
Seychelles	*									*	*		*					
South Africa																		
Sri Lanka	*																	
Sudan																		
Tanzania																		
Yemen				*	*	*		*										

Source: IOMOU- Secretariat

Annexe 2

Flags dominating world shipping

Top 40 flags in 1999 (ships of 300 gt and over)

Rank	Flag	No of Ships	Total DWT (000)	DWT % Share of World Fleet
1	Panama	5036	151323	19.9
2	Liberia	1659	94861	12.5
3	Greece	1102	43477	5.7
4	Malta	1425	40805	5.4
5	Bahamas	1103	40667	5.4
6	Cyprus	1440	34625	4.6
7	Singapore	989	33241	4.4
8	Norway	1178	33042	4.3
9	Japan	3215	22599	3.0
10	China, PR of	2098	22429	3.0
11	United States	361	12769	1.7
12	Philippines	969	11919	1.6
13	Hong Kong	301	10891	1.4
14	India	384	10766	1.4
15	Marshall Islands	128	10663	1.4
16	Saint Vincent	893	10226	1.3
17	Turkey	898	9939	1.3
18	Italy	651	8835	1.2
19	Germany, FR	647	8810	1.2
20	UK	472	8767	1.2
21	Russia	1721	8225	1.1
22	Taiwan	215	8171	1.1
23	Korea, Rep	684	8020	1.1
24	Bermuda	105	7653	1.0
25	Malaysia	466	7448	1.0
26	France	221	6957	0.9
27	Denmark	502	6855	0.9
28	Brazil	199	6370	0.8
29	Iran	167	5680	0.7
30	Netherlands	680	5613	0.7
31	Antigua & Barbuda	601	4176	0.5
32	Indonesia	1041	3988	0.5
33	Kuwait	58	3900	0.5
34	Thailand	419	3036	0.4
35	Belize	757	2648	0.3
36	Australia	106	2255	0.3
37	Luxembourg	48	2123	0.3
38	Egypt	206	1992	0.3
39	Romania	178	1859	0.2
40	Poland	96	1851	0.2
Total top 40 flags		33419	719476	94.7
Rest of the world		5413	40281	5.3

Source: LMIS, 1999

Annexe 3

International conventions and Protocols ratified by India (Source DGS)

INSTRUMENT	In Force w.e.f.	India's position
1. International Convention for the Safety of Life at Sea 1974 as amended.	25.5.1980	Ratified
2. Protocol of 1978 relating to the International Convention for the Safety of Life at sea, 1974	1.5.1982	Ratified
3. Protocol of 1988 relating to the International Convention for the Safety of Life at Sea 1974		
4. Convention of the International Regulations for the Preventing Collisions at Sea, 1972 as amended. COLREG 1972	15.7.1977	Ratified
5. The protocol relating to the International Convention for the Prevention of pollution from ships, 1973 as amended (Marpol) amended 73/78	2.10.1983	Ratified
6. Convention on Facilitation of international Maritime traffic 1965 as amended (FAL)		Ratified
7. International Convention of Loadline, 1966 (LL 1966)		Ratified
8. Protocol of 1988 relating to the International Convention on Loadlines, 1966		
9. International Convention on Tonnage Measurement of ships, 1969 (Tonnage 1969)	18.7.82	Ratified
10. International Convention relating to Intervention on the High Seas in cases of oil Pollution Casualties 1969 (Intervention 1969)	6.5.75	Under consideration
11. Protocol relating to Intervention on High seas in cases of pollution by substances other than oil 1973.	30.3.83	
12. International Convention on civil liability for oil pollution damage, 1969 (CLC 1969)	19.6.75	Ratified
13. Protocol to the international Convention on Civil Liabilities for oil Pollution damage, 1969 (CLC protocol 1976)	8.4.81	Ratified
14. Protocol of 1992 to amend the international Convention on Civil Liability	30.5.96	

for oil pollution Damage 1969 (CLC protocol 1992)		
15.Special Trade Passenger Ships Agreement,1971 (STP 1971)	2.1.74	Ratified
16.Protocol for Space requirement for special Trade Passenger Ships 1973 (Space STP 1973)	2.6.77	Ratified
17.Convention relating to Civil liability in the field of Maritime Carriage of Nuclear Material,1971 (Nuclear 1971)	15.7.75	Considered and decided not to ratify
18.International Convention on the establishment of an International Fund for compensation of oil pollution Damage 1971 (Fund 1971)	16.10.78	Ratified
19.Protocol to the International convention on the establishment of an international Fund for compensation for oil pollution damage 1971 (Fund protocol 1976)	22.11.94	Ratified
20 .Protocol 1992 to amend the International Convention on the establishment of an international Fund for the compensation of Oil pollution Damage 1971 (Fund protocol 1992)	30.5.96.	
21.International Convention for Safe Containers ,1972as amended (CSC Amended 1972)	6.9.77.	Ratified
22. Athens Convention relating to the Carriage of passengers and their luggage by Sea 1974 (PAL 19749	24.4.87	--
23.Protocol to the Athens Convention relating to the carriage of passengers and their luggage by sea 1974(PAL Protocol 1976)	30.4.89	
24.Protocol of 1990 to amend the Athens convention relating to the Carriage of passengers and their luggage by sea 1974(PAL Protocol 1990)	Not yet in force	
25.Convention Agreement on the International Maritime Satellite organisation (INMARSAT) as amended	16.7.79	Ratified
26. Operating agreement on the international Maritime satellite Organisation INMARSAT (INMARSAT OP)	16.7.79	Ratified
27.Convention on limitation of liability for Maritime Claims 1976 (LMC1976)	1.12.86	--
28. International convention on Standards of Training Certification and Watch – keeping for sea –farers,1978 (STCW	28.4.84	Ratified

1978)		
29. International convention on Maritime Search And rescue ,1979 (SAR 1979)	22.6.85	
30. Conventio for suppression of Unlawful acts against the Safety of maritime Navigation (SWA 1988)	1.3.92	
31. Protocol for the suppression of unlawful acts against the Safety of Fixed platforms located on the Continental Shelf (SWA Protocol 1988)	1.3.92	
32. International convention on Salvage 1989 (Salvage 1989)	14.7.96	Ratified
33. Internatinal Convention on Oil Pollution Preparedness response and co-operation 1990 (OPRC 1990)	13.5.95	
34. Convention on the Prevention of Marine Pollution by Dumping of wastes, and other matter 1972 as amended (LDC amended 1972)	30.8.75	Consideration kept in abeyance
35. International Convention on Standard of Training Certification and Watch Keeping for fishing vessels Personnel (STCW -F)	Not yet in force	Under consideration
36. Terrmolinos Protocol 1993 relating to the Terrmolinos International Convention for the Safety of fishing Vessels 1977 (SFV Protocol 1993)	Not yet in force	

Source: Annual report 1998-1999 Of Directorate General of Shipping.

Annexe 4

Procedures responding to port State control, by IACS Members and Associates.

IACS: Committed to co-operation

IACS members are committed to full co-operation with port State control authorities and co-operation, assistance, strict reporting and data logging are all keys to IACS formal procedure for responding to port State control.

One of seven IACS Marine Safety Initiatives formally implemented on 1 January 1996, this procedure is mandatory in the response of IACS Members and Associates.

In brief summary, its detailed provisions are:

- A Port State request to attend on board a ship to assist with rectification's of provided deficiencies or other discrepancies will be dealt with promptly and positively.

- IACS Members will **Co-Operate and Assist** during port State control inspection by:
 - Ensuring that Class surveyors attend the ship when deficiencies related to Class and Statutory matters are found.
 - Providing port State control inspectors with relevant information.
 - Liaising with the Flag State in accordance with prior agreement and the owner's representative, to ensure that both are fully aware of actions being taken that affect Class-related or Statutory related matters.

- In the context of **Deficiencies**:
 - port State control inspectors will be urged to list deficiencies in relation to the specific Convention certificate concerned.

- Listings should indicate:
 - 1) All relevant deficiencies in the port State control inspection report.
 - 2) All deficiencies dealt with and details of actions taken for each, and
 - 3) Any deficiencies which with agreement of the surveyors and port State control inspectors, remain outstanding on the ship's departure and which are subject to special re-examination and attention by a specified date.

- In the context of **DETENTION REPORTS AND STATISTICS:**
 - Reported deficiencies will be promptly analysed and the following actions taken:
 - 1) Surveyors will provide detailed comments on any deficiencies of either class or statutory nature within the purview of the classification society or authority delegated to it and
 - 2) The Flag State will be provided with an updated summary of any deficiencies and actions taken.
 - 3) Database of referred deficiencies will be maintained. Database information will be able to show that recurring violations, by deficiency type and ship, are readily identifiable and include data on agreed actions taken.

- In the context of **PERFORMANCE**, the relative performance of each IACS Member and Associate in its port State control response and data logging activity is monitored as part of IACS Quality system by the IACS Permanent Secretariat.
 - An IACS Society will cooperate fully in the process of correcting any Class related safety deficiencies. The society may require corrective action(s), but authorisation to instruct repair expenditure and ultimately for any deficiencies is entirely that of the owner.

- In the context of **RESPONSIBILITY** IACS uses and supports the criteria of the United States Coast Guard. In summary, these USCG principles are that:
 - Interventions are conducted only when a vessel is unfit to proceed to sea or a treat to the marine environment.
 - Voyage damage will not be Class associated, unless other Class related deficiencies are noted during a damage survey.

- Equipment non-conformities will only be Class associated where equipment is covered by a Class survey, or where Class has issued certification on behalf of a Flag Administration.
- Where multiple deficiencies are noted, only those serious enough to justify intervention will be evaluated to determine Class non-conformities.
- When the cause of an intervention, outdated equipment will not be associated with Class non-conformity unless outdated at the time of the last survey conducted by Class on behalf of the flag Administration.
- When the cause of the intervention, the absence of highly pilferable equipment, it will generally not be listed as a Class non conformity, unless a large quantity is missing, and inspection is taking place within 90 days after the last survey on behalf of the Flag Administration.
- Expired certificates will not be associated with a Class non-conformity unless the certificates were not endorsed or properly issued by the Class Society when conducting the last survey on behalf of the Flag Administration.
- Interventions based on manning issues, whether conducted in accordance with SOLAS or STCW, will not be listed as Class non-conformities.
- Of 90 days will generally be placed on non-conformities associated with equipment failures, unless apparent that the deficiency is long standing.
- Failure of human factor-related testing will be associated with a Class non-conformity only when the Class society issued the relevant certificate, and then only for a specific period of 30 days.
- Serious wastage or other structural deficiencies not caused by voyage will be listed as class non-conformity.
- In all cases of Class non- conformities, the classification Society will be notified in writing. All cases should be subject to appeal to the relevant port State control authority, and all appeals should receive a written response.

Annexe 5

Table1: Port State Inspections Per Classification Society. For the Year - 1997

Classification society	No. of ships inspected	No. of ships with deficiencies	No. of detentions*
American Bureau of Shipping	821	429	33
China Corporation Register of Shipping (Taiwan, China)	180	130	24
Bulgarski Koraben Register	33	23	2
Bureau Veritas	608	378	58
Hellenic Register of Shipping	16	14	4
Biro Klasifikasi Indonesia	37	28	11
Det Norske Veritas	783	375	35
Registrol Naval Roman	8	7	2
Germanischer Llyod	513	230	26
DDR Schiffs Revision und klassification	50	26	1
Vietnam register of Shipping (Dan Kiem Viet Nam)	38	35	18
Korean Register of Shipping	716	454	38
Ceskoslovensky Lodin Register	7	5	0
Lloyd's Register of Shipping	1,356	699	69
Registro Cubano de Buques	3	2	0
Panama Bureau of Shipping	25	13	4
Nippon Kaiji Kyokai	4,274	2,302	199
Panama Register Corp	18	17	10
Honduras International Naval Surveying and Inspection Bureau	97	70	17
Polski Rejestr statkow	49	25	11
Panama Maritime Surveyors Bureau Inc	206	191	2
Registro Italiano Navale	88	54	8
NV Unitas	1	1	0
Cyprus Bureau of Shipping	3	2	0
Maritime Register of Shipping (Russia)	582	477	35
China Clasification Society	1,103	811	131
Indian Register of Shipping	57	46	3
Croatian Register of Shipping	21	16	0
Jugoslavenski registar Brodova	1	1	0
Register of Shipping (North Korea)	10	9	3
National Shipping Adjusters Inc	1	1	0
Others	1,252	647	86
Total	12,957	7,518	830

Table2: Port State Inspections Per Classification Society: For the Year 1998

Classification society	No. of ships inspected	No. of ships with deficiencies	No. of detentions*	Detention percentage %
American Bureau of Shipping	914	514	44	4.81
China Corporation Register of Shipping (Taiwan, China)	186	132	20	10.75
Bulgarski Koraben Register Bureau Veritas	20	14	6	30
Hellenic Register of Shipping	665	447	57	8.57
Biro Klasifikasi Indonesia	37	27	6	16.22
Det Norske Veritas	66	58	7	10.61
Registrol Naval Roman	943	487	45	4.77
Registro International Nvale (RINAVE Portugeuesa) SARL	3	3	0	0
Germanischer Llyod	3	3	1	33.33
DDR Schiffs Revision und klassifikation	705	400	41	5.82
Vietnam register of Shipping (Dan Kiem Viet Nam)	13	8	0	0
Korean Register of Shipping	34	30	7	20.59
Ceskoslovensky Lodin Register	802	540	63	7.86
Lloyd's Register of Shipping	2	5	0	0
Panama Bureau of Shipping	1,583	910	0	0
Nippon Kaiji Kyokai	12	9	5	41.67
Panama Register Corp	5,186	3,002	244	4.70
Honduras International Naval Surveying and Inspection Bureau	10	9	1	10.00
Polski Rejestr statkow	47	45	8	17.02
Panama Maritime Surveyors Bureau Inc	27	16	5	18.52
Registro Italiano Navale	96	87	4	4.17
INCLAMAR	123	90	19	15.45
Cyprus Bureau of Shipping	1	1	1	100
Maritime Register of Shipping (Russia)	59	58	2	3.39
China Clasification Society	559	464	48	8.59
Indian Register of Shipping	1,267	1,023	115	9.08
Croatian Register of Shipping Jugoslavenski registar Brodova	44	34	3	6.82
Register of Shipping (North Korea)	17	7	0	0
Rejnoj Registr RSFSR	9	9	2	22.22
Others	1	1	0	0
Total	1,110	796	242	21.80
	14,545	9,226	1,061	7.29

Note: Deficiencies for which a ship is detained may not necessarily be related tot he matters covered by the certificates issued by the classification society.

Source: Tokyo MOU Annual Report –1997-98

Annex 6

ABS proposal for survey of older vessels:

- limit class transfer of vessels 15 years of age or older to a window of six months following the Special Survey completion date unless an equivalent survey is conducted at the time of transfer
- require two Surveyors to attend all tankers and bulk carriers for Special Survey No.3 and for subsequent Intermediate and Special Surveys;
- strengthen the survey planning process by extending the requirements currently applied to Special Survey to all Intermediate Surveys following Special Survey 3;
- require surveyors to make a photographic record of the vessel during Special Survey No.3 and at subsequent Special and Intermediate Surveys. Photos to be part of the survey report and vessel records;
- maintain Class Records, including thickness measurement reports and photographs in simple, consistent computer format for the entire life of the vessel. These records to be transferred at changes in ownership or class. These records also to be available to flag State and Port State authorities on demand,
- further strengthen requirements governing the taking of thickness measurements. Require the class surveyor to be on board the vessel and to both direct and supervise the actions of the approved thickness measurement firm. Thickness measurement reports, in simple and consistent computer format, to be maintained on board the vessel and to be made available to flag State and port State authorities on demand;
- strengthen the Special Survey requirements for tankers including the Condition Assessment Program requirements (including a structural fatigue assessment), at Special Survey No.3 and subsequent Special Surveys;
- internally examine all ballast tanks on an annual basis after Special Survey No.3;
- strictly enforce requirements governing prompt and thorough repair and further tighten them to limit the circumstances under which any further sea passage can be under taken. A prompt and thorough repair is defined as a permanent repair, completed at the time of the survey;
- develop guidelines for the application, maintenance and repair of coatings.
(ABS press release)

Annexe 7

As per the Asia Pacific studies conducted, the weakness in ISM Code implementation are appended below:

a) Poor level of working knowledge of the ISM Code within shipping companies:

This problem is pervasive, and it applies to the people both at sea and ashore. While people have all heard of the ISM Code, participants argue that actual knowledge of its 13 requirements, particularly their practical application, is very poor. Majority of seafarers have had no ISM training, and many companies are introducing ISM system without adequately preparing and training their staff. To make matter worse, people ashore are said to have even less knowledge of the ISM Code than seafarers to develop real competition in ISM.

b). Lack of ISM training: Maritime-training institutions have not incorporated the ISM Code into their curriculum. It is also argued that while STCW-95 does incorporate ISM training, the current level of teaching and assessment provided by many institutes does not enable seafarer to develop real competence in ISM. Confounding the problem is the flag State inaction. While few flag States are addressing ISM training many have done very little in improving ISM competence, despite the evidence raised by many port State control inspection which show that the seafarers are not competent in implementing the ISM Code.

c) Lack of Control over the auditing process: With respect to ISM audits, a main criticism is the uneven quality of ISM auditors. While there are some good experienced auditor around, there are also many that do the job without adequate ISM auditing training and experience.

In many cases, this often results in auditors failing to make realistic judgements on what are acceptable commercial shipping practices.

Another main component is the lack of consistency among auditors, and this applies even to those from the same auditing body. Not only does this often lead to greater no. of deficiencies, but it also creates confusion over what is really required.

d) Shortcuts to ISM implementation: While there are many examples of shipping companies that have gained a lot from implementing the ISM Code, these companies are typically the better and more respected operators whose standards of safety are always much higher than the average. As argued by a number of study participants, the ship operators and crews who need it the most, the ones with low and unacceptable safety standards, are the ones who have yet to fully embrace the ISM Code. These operators may indeed have certified systems with all the proper documentation to prove compliance but in reality, what they have are mere paper systems, which neither reflect current operation nor work practices.

Among the group, it is becoming a cheap option to purchase a model system, make some changes to it, and use it to get through the ISM audit. This, of course, defeats the whole purpose of the ISM Code, which is to tailor the ISM system to an organizations real business.

e) Negative attitude of seafarers. Largely as a result of the preceding problems, seafarers in general regard the ISM Code in a harsh light. Because in many instances, shore based management themselves do not understand or appreciate the ISM Code. This lack of proper regards for its implementation carries over to ship personnel. Given the general lack of training on the ISM code and what is seen as the additional paper trail that its implementation requires, seafarers tend to view ISM Code negatively, making it even harder for companies to generate broad based support.

Annexe 8

Target factor

Revised 10.3 .99

1. The Target Factor is in two parts:

Generic Factor-based on elements of the ships profile including the relevant priority criteria.

History Factor-based on the ships inspection history in the Paris MOU.

2. The Generic Factor for an individual ship is calculated by adding together the applicable elements of its profile according to the following table:

Element	Target Factor value
Targeted flag :% above 3yr average of (MOU members)(all flags)	
>30%	20
>20≤30%	15
>10≤20%	10
>6≤10%	5
>3 ≤6%	4
>0≤3%	3
Targeted ship type (ie liable to expanded inspection)	5
Non-EU recognised class society	5
Age:	
>25 years	3
21-24	2
13-20	1
Not all conventions ratified	1
Class deficiency ratio above average	1

3. Targeted flag-

Graduated for all targeted flags according to percentage above applicable 3-year rolling average.

Targeted ship type-

- i) Bulk carrier (type code 40) more than 12 years.
- ii) Gas carrier (type code 20, 21, 22) more than 10 years old.
- iii) Chemical Tanker (type code 30) more than 10 years old.
- iv) Oil tanker (type code 11, 12, 13) more than 20 years old.
- v) Passenger ship/ro-ro ferry (type code 70 & 71)

Non EU recognised classification society-

A class society not appearing on the list of recognised societies published by EC Commission. If no class is recorded in SIRENAC (other than withdrawal/suspension of class for safety reasons) the ship will be assumed to be classed with an EU recognised class society.

Ships more than 12 years old-

Graduated for non-targeted ship types and passenger ships

Not all conventions ratified-

Flag states who have not ratified all 7 main conventions.

Class deficiency ratio above average-

As identified in MOU annual deficiency statistics.

3. The Generic Factor is updated when the particulars of the ship change or the status of its existing flag or class change.

History Factor

4. The History Factor is applied to the Generic Factor to reflect the actual condition of the ship found by inspection.
5. The History Factor is calculated by applying the elements in the following table to each Paris MOU inspection of the ship carried out in the previous 12 months.

Element	Target Value	Remarks
1. Entering a region port for the first time in the last 12 months	+20	No inspection recorded in SIRENAC in the last 12 months.
2. Not inspected in last 6 months	+10	No inspection recorded in SIRENAC in the last 6 months.
3. Detained	+15	The values for deficiencies and outstanding deficiencies (elements 4&5 below) are added.
4. Number of deficiencies: 0 1 to 5 6to10 11 to 20 21+	-15 0 +5 +10 +15	The values for outstanding deficiencies (element) are also added when appropriate.
5. Outstanding deficiencies from last inspection	+1 for each code 17 & 15 and for every two 16 and /or 99 -2 if code 12 present (all defs. rectified)	The value for the outstanding deficiencies is applied only in respect of the latest inspection.

6. The overall Target Factor is calculated by adding the Generic and History Factor but cannot be less than the Generic Factor.

8. Target Factors are re-calculated by CAAM at the end of each day.

Annexe 9

PORT STATE CONTROL AGREEMENTS: COMPARATIVE TABLE

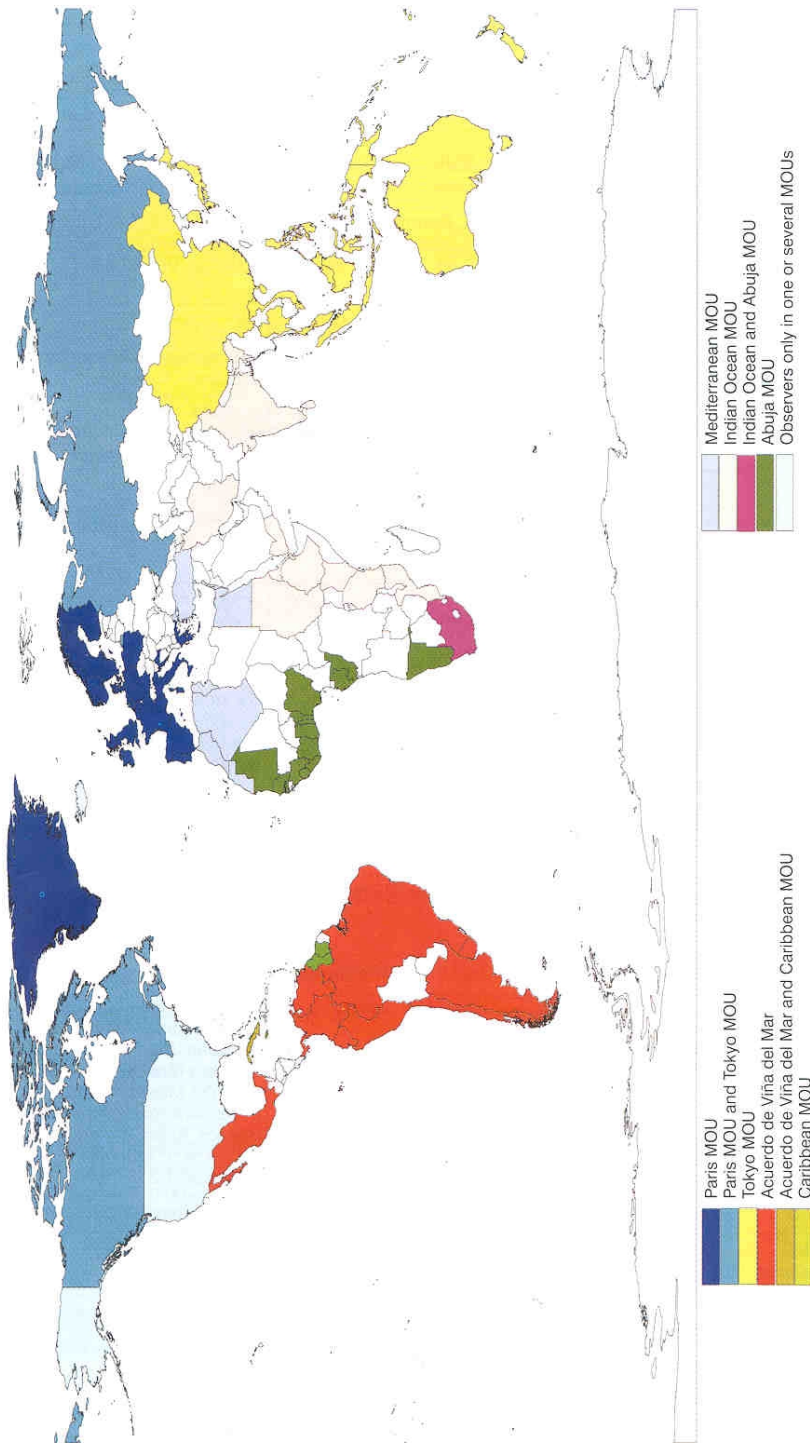
	Paris MOU	Acuerdo de Viña del Mar
Members	18 Belgium, Canada, Croatia, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Russian Federation, Spain, Sweden, UK	12 Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Panama, Peru, Uruguay, Venezuela
Observers	Japan, USA, IMO, ILO, Tokyo MOU, Iceland	IMO, CEPAL
Target inspection rate	25% annual inspection rate per country	15% annual inspection rate per country within 3 years
Relevant instruments	LL 1966 and LL PROT 1988 SOLAS 1974 SOLAS PROT 1978, 1988 MARPOL 73/78 STCW 1978 COLREG 1972 TONNAGE 69 ILO Convention No. 147	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972
Special attention	<ul style="list-style-type: none"> - ships which have been reported by pilots or port authorities as being deficient - ships carrying dangerous or polluting goods which have failed to report relevant information - ships which have been subject of a report or notification by another authority - ships which have been subject of a report by the master, a crew member, etc. - ships which have been suspended from class during the preceding 6 months 	<ul style="list-style-type: none"> - passenger ships, ro-ro ships, bulk carriers - ships which may present a special hazard - ships which have had several recent deficiencies
Amendments	will take effect 60 days after acceptance	will take effect 60 days after acceptance
Information Centre	Centre Administratif des Affaires Maritimes (CAAM), Saint-Malo, France	Centro de Información del Acuerdo Latinoamericano (CIALA), Prefectura Naval Argentina, Buenos Aires
Committee	a representative of each of the authorities and the EC Commission	a representative of each of the authorities
Secretariat	The Hague, The Netherlands Mr. R.W.J. Schiferli Secretary of the Paris MOU Nieuwe Uitleg 1 2514 BP The Hague, The Netherlands Tel: +31 70 351 1509 Fax: +31 70 351 1599	Buenos Aires, Argentina Mr. Juan Jose Beltritti Prefecto Mayor Viña del Mar Agreement Secretariat Prefectura Naval Argentina Buenos Aires, Argentina Tel: +54 1 318 7455 Fax: +54 1 318 7547
Signed	1 July 1982	5 November 1992
Official languages	English, French	Spanish, Portuguese

	Tokyo MOU	Caribbean MOU
Members	18 Australia, Canada, China, Fiji, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, Philippines,* Russian Federation, Singapore, Solomon Islands*, Thailand, Vanuatu, Viet Nam, Hong Kong (China)	20 Anguilla*, Antigua & Barbuda, Aruba, Bahamas, Barbados, Bermuda*, British Virgin Islands*, Cayman Islands, Dominica*, Grenada, Guyana, Jamaica, Montserrat*, Netherlands Antilles, Saint Kitts & Nevis*, Saint Lucia*, Saint Vincent & the Grenadines*, Suriname*, Trinidad & Tobago, Turks & Caicos Islands*
Observers	Brunei, USA, IMO, ILO, ESCAP, Paris MOU, Indian Ocean MOU	IMO, ILO, CARICOM, IACS, Anguilla, Montserrat, Turks & Caicos, Canada, USA, Netherlands, Paris MOU, Viña del Mar MOU, Tokyo MOU
Target inspection rate	50% annual regional inspection rate by the year 2000 (achieved in 1996)	10% annual inspection rate per country within 3 years
Relevant instruments	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 ILO Convention No. 147	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 ILO Convention No. 147
Special attention	<ul style="list-style-type: none"> – passenger ships, ro–ro ships, bulk carriers – ships which may present a special hazard – ships visiting a port for the first time or after an absence of 12 months or more – ships flying the flag of a State appearing in the 3-year rolling average table of above-average detentions – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships carrying dangerous or polluting goods which have failed to report relevant information 	<ul style="list-style-type: none"> – ships visiting a port for the first time or after an absence of 12 months or more – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships whose certificates are not in order – ships carrying dangerous or polluting goods which have failed to report relevant information – ships which have been suspended from class in the preceding 6 months
Amendments	will take effect 60 days after acceptance	will take effect 60 days after acceptance
Information Centre	Information Centre Vancouver, Canada	Information Centre Curaçao, Netherlands Antilles
Committee	a representative of each of the authorities	a representative of each of the authorities
Secretariat	Tokyo, Japan Mr. Y. Sasamura Secretary, Tokyo MOU Secretariat Tomoecho Annex Building 6F 3-8-26, Toranomom Minato-Ku, Tokyo Japan 105 Tel: +81 3 3433 0621 Fax: +81 3 3433 0624	St. Michael, Barbados Mrs. Valerie Browne Secretary of the Caribbean MOU International Transport Division Herbert House Fontabelle St. Michael, Barbados Tel: +246 430 7507 Fax: +246 436 4828
Signed	2 December 1993	9 February 1996
Official languages	English	English

	Mediterranean MOU	Indian Ocean MOU
Members	10 Algeria*, Cyprus, Egypt, Israel*, Jordan, Malta, Lebanon, Morocco*, Tunisia, Turkey and the Palestinian Authority*	15 Djibouti, Eritrea, Ethiopia, India, Iran, Kenya, Maldives, Mauritius, Mozambique, Seychelles, South Africa, Sri Lanka, Sudan, Tanzania, Yemen
Observers	IMO, ILO, EC	IMO, ILO, PMAESA
Target inspection rate	15% annual inspection rate per country within 3 years	10% annual inspection rate per country within 3 years
Relevant instruments	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 ILO Convention No. 147	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 TONNAGE 69 ILO Convention No. 147
Special attention	<ul style="list-style-type: none"> – ships visiting a port of a State for the first time or after an absence of 12 months or more – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships whose certificates are not in order – ships carrying dangerous or polluting goods which have failed to report relevant information – ships which have been suspended from class in the preceding 6 months 	<ul style="list-style-type: none"> – ships visiting a port of a State for the first time or after an absence of 12 months or more – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships whose certificates are not in order – ships carrying dangerous or polluting goods which have failed to report relevant information – ships which have been suspended from class in the preceding 6 months
Amendments	will take effect 60 days after acceptance	will take effect 60 days after acceptance
Information Centre	Information Centre Casablanca, Morocco	Information Centre Goa, India
Committee	a representative of each of the authorities	a representative of each of the authorities
Secretariat	Alexandria, Egypt Adm. Hani Hosni Secretary, Mediterranean PSC Secretariat 27 Admiral Hamza Pasha Street Roushdy Alexandria, Egypt Tel: +203 544 6538/5446537/5427949 Fax: +203 546 6360	Goa, India Mr. B. Ganguli Secretary I.O.M.O.U. Secretariat Head Land, Sada Near Antarctic Study Centre Vasco-da-Gama Goa 403 804, India Tel: +91 834 519383 Fax: +91 834 519383
Signed	11 July 1997	5 June 1998
Official languages	English, French and Arabic	English

	Abuja MOU	Black Sea MOU*
Members	16 Benin, Cape Verde, Congo, Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Liberia, Mauritania, Namibia, Nigeria, Senegal, Sierra Leone, South Africa, Togo	6 Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine
Observers	IMO, ILO, MOWCA, Burkina Faso, Mali	IMO, ILO
Target inspection rate	15% annual inspection rate per country within 3 years	15% annual inspection rate per country within 3 years
Relevant instruments	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 TONNAGE 69 ILO Convention No. 147	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 TONNAGE 69 ILO Convention No. 147
Special attention	<ul style="list-style-type: none"> – ships visiting a port of a State for the first time or after an absence of 12 months or more – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships whose certificates are not in order – ships carrying dangerous or polluting goods not reporting all information – ships suspended from class 	<ul style="list-style-type: none"> – ships visiting a port of a State for the first time or after an absence of 12 months or more – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships whose certificates are not in order – ships carrying dangerous or polluting goods not reporting all information – ships suspended from class – ships which have been subject of a report or notification by another authority
Amendments	will take effect 60 days after acceptance	will take effect 60 days after acceptance
Information Centre	not yet operating	not yet determined
Committee	a representative of each of the authorities	a representative of each of the authorities
Secretariat	Lagos, Nigeria Mrs. B.O. Williams Director, Maritime Services Department Federal Ministry of Transport Federal Secretariats Complex Abuja, Nigeria Tel: +234 9 523 0879 Fax: +234 9 523 3705	not yet determined
Signed	22 October 1999 ✓	
Official languages	English, French	

Regional agreements on port State control



Source . IMO News

Annexe 10

Questioner and Replies from the Secretaries of MOU's

To,
The Secretary,
The Paris MOU, The Acuerdo de Vina del Mar, The Tokyo MOU, The Caribbean MOU, The Mediterranean MOU, The Indian Ocean MOU, and The Abuja MOU.

Dear Sir,

I am a student at World Maritime University, Malmo, Sweden and as part of the course, writing my dissertation. My topic is on port State control. I am enclosing a questioner, and shall be grateful if it is forwarded back to me after stating your opinion.

With regards
(D. Mehrotra)
5th April, 2000

e mail: S00073@ wmu.se
Fax: + 46 40 124827.

Questioner

- How far in your opinion, MOU's between different States has helped in eradicating sub-standard ships from your region?
- Does co-operation between MOU's help in eradicating substandard ships?
- Will exchange of data between all MOU's after inspection of the vessel by the PSCO, help in keeping a track on substandard ship?
- In your opinion, will the common network of database be useful, i.e all MOU's sending information to a common data base, not only for detained ships, but also for ships inspected and not detained but with deficiencies.
- Is there a need for a Global MOU ? So as to have a common standard all over, and also, to avoid duplication of inspection.

From: "Ning" <tmou.okada@nifty.ne.jp>
To: "Dilip MEHROTRA" <S00073@wmu.se>
Subject: **Re: Questioner**
Date sent: Fri, 7 Apr 2000 13:57:39 +0900

Our reference: TMS00/113

Dear Mr. Mehrotra:

Reference of your message dated 6 April 2000, questionnaire on port State control.

As requested, we would like to provide the following information for your reference:

Questions 1 & 2

It is for sure that establishment and operation of the MOU would help to eliminate substandard ships in the region. Now, under the Tokyo MOU, there are more than 14,000 PSC inspections conducted by member Authorities annually. And more than 50,000 deficiencies are found during inspections and more than 1,000 detentions are made to substandard ships each year. This could be seen as the clear indication of effectiveness of the MOU in elimination of substandard ships.

Question 3

Exchange of PSC inspection information will provide a tool for tracking substandard ships and targeting ships for inspection. It is advised that a new PSC information system had been launched at the beginning of this year. The new system is developed by using internet technology and would provide a more efficient way and more user-friendly interface for data exchange and input. The new system will ensure full inspection details be properly recorded and storage of whole inspection history of ships.

Question 4

From our point of view, it would be important and useful to exchange information between regional MOUs. At present, we have the agreement with the Paris MOU for inter-regional data exchange. For data exchange between all MOUs, it could be only possible when each MOU had established its database system and accumulated enough data for exchange. Based on the present situation, it appears not feasible for the establishment of a common PSC network database.

Question 5

It is not clear for us what Global MOU means. If such a MOU would be a worldwide organization on port State control, it would look not necessary. Because, as the UN specialized agency, IMO is the international body responsible for safety of shipping and protection of the marine environment and the work of IMO covers both flag State implementation and port State control. Therefore, we think IMO is the only appropriate international forum to discuss port State control, rather than Global MOU. Of course, it would be the most effective way to eliminate substandard ships if all regions around the world established appropriate port State control system and a worldwide port State control network could be formed in future. But it should be understood that there is a quite long way to achieve this goal.

I hope the above information would be of reference for you.

Yours faithfully,

=====
Mitsutoyo OKADA
Deputy Secretary
Tokyo MOU Secretariat
=====

Date sent: Mon, 10 Apr 2000 12:35:31 +0200
From: Natascha Dofferhoff <natascha.dofferhoff@parismou.org>
To: S00073@wmu.se
Subject: Questioner

Dear Mr Mehrotra

Following your questions on your questioner I can inform you as follow.

Yes, the establishment of the Paris MOU has helped in eradicating sub-standards ships from this region and also the co-operation with other MOU's helps.

With the Tokyo MOU, the Paris MOU exchanges information , due to this it is possible to keep track of sub-standard ships. However an inspection in the Tokyo MOU will not be seen as an inspection in the Paris MOU.

The linking of databases from different MOU's could be an idea, with this linking you can create some sort of Global MOU. However a condition should be that all agreements of the MOU's are in line with each other, that all inspection are performed in the same way and on the same level.

Yours sincerely

Mrs Natascha Dofferhoff
Assistant Secretary
Paris MOU on Port State Control

From: "IOMOU" <iomou@goa1.dot.net.in>
To: <S00073@wmu.se>
Subject: Questionnaire on PSC
Date sent: Thu, 13 Apr 2000 13:25:12 +0530

Dear Mr. Mehrotra, Appended below please find the reply to your questionnaire, seriatim :

- 1) This MOU is operational for just about a year. As such the statistical figures are not available to give a positive reply. However, it felt that the system is effective, since all the states in the region has started implementing PSC.
- 2) The answer to this is same as above as the co-operation / harmonisation between MOUs is yet to take shape.
- 3) Affirmative.
- 4) There may not be a common database but accessibility of data from any MOU will be useful.
- 5) Harmonisation of MOUs is being contemplated. Probably, IMO will be in a better position to reply this.

Hope this helps you in your task.

Best wishes for your success.

B. Ganguli,
Secretary,
IOMOU Secretariat



Mediterranean MoU on PSC Secretariat
سكترارية رقابة دول البحر المتوسط على الموانئ

الإسكندرية - مصر
Alexandria - Egypt

FAX MESSAGE

TO : WORLD MARITIME UNIVERSITY
ATT. : **MR. D. MEHROTRA**
STUDENT
FAX # : +46 40124827
FRM : **CAPT. EMAD ISLAM**
DEPUTY SECRETARY
MED. MOU SECRETARIAT
FAX # : +203 5466360
DATE : 13/4/2000
PAGES : 1 (INCLUDING THIS ONE)
SUBJECT : YR FAX DATED 10/4/2000

REF. TO YR FAX DATED 10/4/2000, WE WLD BE GLAD TO ANSWER YR 5
QUESTIONERS AS FOLLOWS :

- MOU'S HAS NO STANDARD LEVEL. THERE IS SOME MOU'S WHO HAVE HELPED BETWEEN ITS DIFFERENT STATES IN ERADICATING SUB-STANDARD SHIPS LIKE PARIS & TOKYO MOU'S; BUT OTHER MOU'S DID NOT HELP SO FAR TILL TODAY IN AN ADEQUATE MEASURES.
- YES AFTER HARMONIZATION BETWEEN MOU'S.
- YES.
- YES.
- YES.

B. RGRDS.

CAPT. EMAD ISLAM
DEPUTY SECRETARY

MEDITERRANEAN PORTS SECURITY COORDINATOR

From: "Barrie Rial" <rial_wb@candw.ky>
To: "Professor Mukherjee" <pkm@wmu.se>
Subject: Response to Student's Questionnaire on PSC
Date sent: Mon, 24 Jul 2000 03:30:33 -0400

Dear Mr Mehotra

I have recently received your questionnaire by fax from the WMU, which I understand you sent to the Secretariat of the Caribbean MOU. I am sorry to hear you did not yet receive a response. This is attached, and I trust you will find it useful.

a.. Question 1.

There is no doubt that an organised Port State Control (PSC) has assisted in reducing the number of substandard ships operating world-wide. Such ships are not yet however eradicated, but the more effective a given region's PSC programme and capability becomes, the less potential exists for substandard ships and operators to ply that region unchallenged – as has been the case in the past.

It is difficult to quantify "how far" the eradication has progressed, for a number of reasons. First there was really no base figure to start from, though everyone realised there were too many and substandard ships. Secondly, the statistics need to be analysed and are subject to different interpretations. For example, when first embarking on a PSC regional programme, what will be considered substandard are the blatant offenders, and these will tend to receive priority attention. As the standards increase, there will be a tendency to "move the goal posts", and ships that at first were considered not that bad will receive more attention. This is evident in Europe, where ships are being detained for matters which some years ago they would not have been detained. This development may be partly politically driven (a form of "unofficial cabotage" against ships the region would rather not have trading in the region for economic reasons). On the other hand there are reports of unabashed abuse of authority in the form of extortion, where a ship is threatened with detention if certain "charges" are not paid, are forced to purchase unnecessary

equipment or face costly delays. Both trends are worrying and perhaps it is time to try and define what a substandard ship is; though admittedly this is a difficult and contentious task.

a. Question 2

Again there is little doubt that co-operation between MOU's assists in eradicating substandard ships, since a joint effort can bring greater pressure on a substandard ship to come up to an acceptable standard. This is in the context of a "bad" ship not escaping attention in a neighbouring PSC region.

a. Question 3

Again the exchange of data between all MOUs is bound to assist in keeping track of a substandard ship. Indeed, I see this as a natural and necessary progression from the regional to a global system of PSC programmes. It will also help to prevent unnecessary inspections of "good" ships.

a. Question 4

A common network of databases would assuredly be useful, to track both the bad and the good ships, and again I see this as a necessary and inevitable progression of the system. Given today's advanced information technology, a global information centre should not be difficult to achieve, and would probably be more cost effective overall.

a. Question 5

From the responses so far, it follows that the natural progression of the PSC regional regimes is toward a global regime, though there will remain some regionalisation since each region will have its indigenous traders. This is with respect to the "hardware" side of things – the actual inspection of ships. If a global communications centre is properly set up, any region should be able to utilise it for global or regional information.

Please note that these responses, whilst given from my perspective as Chairman of the Caribbean MOU, are my own personal views, though I am

sure they are shared by most members of the Caribbean MOU.

Best wishes with your work.

Kind regards

Captain W B Rial

Chairman

Caribbean PSC Committee

Annex 1

Details of the IMO Conventions ratified by the IOMOU Member States.

	IMO Convention 48	IMO amendments 91	IMO amendments 93	SOLAS Convention 74	SOLAS Protocol 78	SOLAS Protocol 88	Stockholm Agreement 96	LOAD LINES Convention 66	LOAD LINES Protocol 88	TONNAGE Convention 69	COLREG Convention 72	CSC Convention 72	CSC amendments 93	SFV Protocol 93	STCW Convention 78	STCW- F Convention 95	SAR Convention 79	STP Agreement
Australia	*	*	*	*	*	*		*	*	*	*	*	*		*		*	
Bangladesh	*			*				*		*	*				*			*
Djibouti	*			*				*		*	*				*			
Eritrea	*			*				*		*	*				*			
Ethiopia	*			*	*			*		*	*				*			
India	*	*	*	*	*			*		*	*	*			*			*
Iran	*		*	*				*		*	*				*		*	
Kenya	*							*		*	*				*		*	
Maldives	*			*				*		*	*				*			
Mauritius	*		*	*				*		*	*				*			
Mozambique	*			*				*		*	*				*		*	
Myanmar	*			*	*			*		*	*				*			
Seychelles	*	*		*	*	*		*	*	*	*				*			
South Africa	*			*	*			*		*	*	*			*		*	
Sri Lanka	*		*	*				*		*	*				*			*
Sudan	*			*				*							*			
Tanzania	*							*							*			
Yemen	*			*				*			*	*			*			*

	STP Protocol 73	INMARSAT Convention 76	INMARSAT amendments 94	INMARSAT OA 76	INMARSAT OA amendments 94	FACILITATION Convention 65	MARPOL 73/78 (Annex I/II)	MARPOL 73/78 (Annex III)	MARPOL 73/78 (Annex IV)	MARPOL 73/78 (Annex V)	MARPOL Protocol 97 (Annex VI)	LC Convention 72	LC Protocol 96	INTERVENTION Convention 69	INTERVENTION Protocol 73	CLC Convention 69	CLC Convention 76	CLC Protocol 92
Australia		*	*	*	*	*	*	*		*		*		*	*	*	*	*
Bangladesh	*	*		*										*				
Djibouti														*		*		
Eritrea																		
Ethiopia																		
India	*	*		*		*	*									*	*	
Iran		*		*		*						*		*	*			
Kenya							*	*	*	*		*				*		
Maldives																*	*	
Mauritius		*		*		*	*	*	*	*						*	*	
Mozambique		*		*												*		
Myanmar							*											
Seychelles						*		*				*				*		
South Africa		*	*	*	*		*	*		*		*		*		*		
Sri Lanka	*	*		*		*	*	*	*	*				*	*	*		
Sudan																		
Tanzania																		
Yemen	*					*								*	*	*		

	FUND Convention 71	FUND protocol 76	FUND Protocol 92	NUCLEAR Convention 71	PAL Convention 74	PAL P	PAL Protocol 90	LLMC Convention 76	LLMC Protocol 96	SUAConvention 88	SUA Protocol 88	SALVAGE Convention 89	OPRC Convention 90	HNS convention 96				
Australia	*	*	*					*		*	*	*	*					
Bangladesh																		
Djibouti	*												*					
Eritrea																		
Ethiopia																		
India	*	*										*	*					
Iran												*	*					
Kenya	*																	
Maldives	*																	
Mauritius	*	*																
Mozambique	*																	
Myanmar																		
Seychelles	*									*	*		*					
South Africa																		
Sri Lanka	*																	
Sudan																		
Tanzania																		
Yemen				*	*	*		*										

Source: IOMOU- Secretariat

Annexe 2

Flags dominating world shipping

Top 40 flags in 1999 (ships of 300 gt and over)

Rank	Flag	No of Ships	Total DWT (000)	DWT % Share of World Fleet
1	Panama	5036	151323	19.9
2	Liberia	1659	94861	12.5
3	Greece	1102	43477	5.7
4	Malta	1425	40805	5.4
5	Bahamas	1103	40667	5.4
6	Cyprus	1440	34625	4.6
7	Singapore	989	33241	4.4
8	Norway	1178	33042	4.3
9	Japan	3215	22599	3.0
10	China, PR of	2098	22429	3.0
11	United States	361	12769	1.7
12	Philippines	969	11919	1.6
13	Hong Kong	301	10891	1.4
14	India	384	10766	1.4
15	Marshall Islands	128	10663	1.4
16	Saint Vincent	893	10226	1.3
17	Turkey	898	9939	1.3
18	Italy	651	8835	1.2
19	Germany, FR	647	8810	1.2
20	UK	472	8767	1.2
21	Russia	1721	8225	1.1
22	Taiwan	215	8171	1.1
23	Korea, Rep	684	8020	1.1
24	Bermuda	105	7653	1.0
25	Malaysia	466	7448	1.0
26	France	221	6957	0.9
27	Denmark	502	6855	0.9
28	Brazil	199	6370	0.8
29	Iran	167	5680	0.7
30	Netherlands	680	5613	0.7
31	Antigua & Barbuda	601	4176	0.5
32	Indonesia	1041	3988	0.5
33	Kuwait	58	3900	0.5
34	Thailand	419	3036	0.4
35	Belize	757	2648	0.3
36	Australia	106	2255	0.3
37	Luxembourg	48	2123	0.3
38	Egypt	206	1992	0.3
39	Romania	178	1859	0.2
40	Poland	96	1851	0.2
Total top 40 flags		33419	719476	94.7
Rest of the world		5413	40281	5.3

Source: LMIS, 1999

Annexe 3

International conventions and Protocols ratified by India (Source DGS)

INSTRUMENT	In Force w.e.f.	India's position
1. International Convention for the Safety of Life at Sea 1974 as amended.	25.5.1980	Ratified
2. Protocol of 1978 relating to the International Convention for the Safety of Life at sea, 1974	1.5.1982	Ratified
3. Protocol of 1988 relating to the International Convention for the Safety of Life at Sea 1974		
4. Convention of the International Regulations for the Preventing Collisions at Sea, 1972 as amended. COLREG 1972	15.7.1977	Ratified
5. The protocol relating to the International Convention for the Prevention of pollution from ships, 1973 as amended (Marpol) amended 73/78	2.10.1983	Ratified
6. Convention on Facilitation of international Maritime traffic 1965 as amended (FAL)		Ratified
7. International Convention of Loadline, 1966 (LL1966)		Ratified
8. Protocol of 1988 relating to the International Convention on Loadlines, 1966		
9. International Convention on Tonnage Measurement of ships, 1969 (Tonnage 1969)	18.7.82	Ratified
10. International Convention relating to Intervention on the High Seas in cases of oil Pollution Casualties 1969 (Intervention 1969)	6.5.75	Under consideration
11. Protocol relating to Intervention on High seas in cases of pollution by substances other than oil 1973.	30.3.83	
12. International Convention on civil liability for oil pollution damage, 1969 (CLC 1969)	19.6.75	Ratified
13. Protocol to the international Convention on Civil Liabilities for oil Pollution damage, 1969 (CLC protocol 1976)	8.4.81	Ratified
14. Protocol of 1992 to amend the international Convention on Civil Liability	30.5.96	

for oil pollution Damage 1969 (CLC protocol 1992)		
15.Special Trade Passenger Ships Agreement,1971 (STP 1971)	2.1.74	Ratified
16.Protocol for Space requirement for special Trade Passenger Ships 1973 (Space STP 1973)	2.6.77	Ratified
17.Convention relating to Civil liability in the field of Maritime Carriage of Nuclear Material,1971 (Nuclear 1971)	15.7.75	Considered and decided not to ratify
18.International Convention on the establishment of an International Fund for compensation of oil pollution Damage 1971 (Fund 1971)	16.10.78	Ratified
19.Protocol to the International convention on the establishment of an international Fund for compensation for oil pollution damage 1971 (Fund protocol 1976)	22.11.94	Ratified
20 .Protocol 1992 to amend the International Convention on the establishment of an international Fund for the compensation of Oil pollution Damage 1971 (Fund protocol 1992)	30.5.96.	
21.International Convention for Safe Containers ,1972as amended (CSC Amended 1972)	6.9.77.	Ratified
22. Athens Convention relating to the Carriage of passengers and their luggage by Sea 1974 (PAL 19749	24.4.87	--
23.Protocol to the Athens Convention relating to the carriage of passengers and their luggage by sea 1974(PAL Protocol 1976)	30.4.89	
24.Protocol of 1990 to amend the Athens convention relating to the Carriage of passengers and their luggage by sea 1974(PAL Protocol 1990)	Not yet in force	
25.Convention Agreement on the International Maritime Satellite organisation (INMARSAT) as amended	16.7.79	Ratified
26. Operating agreement on the international Maritime satellite Organisation INMARSAT (INMARSAT OP)	16.7.79	Ratified
27.Convention on limitation of liability for Maritime Claims 1976 (LMC1976)	1.12.86	--
28. International convention on Standards of Training Certification and Watch – keeping for sea –farers,1978 (STCW	28.4.84	Ratified

1978)		
29. International convention on Maritime Search And rescue ,1979 (SAR 1979)	22.6.85	
30. Conventio for suppression of Unlawful acts against the Safety of maritime Navigation (SWA 1988)	1.3.92	
31. Protocol for the suppression of unlawful acts against the Safety of Fixed platforms located on the Continental Shelf (SWA Protocol 1988)	1.3.92	
32. International convention on Salvage 1989 (Salvage 1989)	14.7.96	Ratified
33. Internatinal Convention on Oil Pollution Preparedness response and co-operation 1990 (OPRC 1990)	13.5.95	
34. Convention on the Prevention of Marine Pollution by Dumping of wastes, and other matter 1972 as amended (LDC amended 1972)	30.8.75	Consideration kept in abeyance
35. International Convention on Standard of Training Certification and Watch Keeping for fishing vessels Personnel (STCW -F)	Not yet in force	Under consideration
36. Terrmolinos Protocol 1993 relating to the Terrmolinos International Convention for the Safety of fishing Vessels 1977 (SFV Protocol 1993)	Not yet in force	

Source: Annual report 1998-1999 Of Directorate General of Shipping.

Annexe 4

Procedures responding to port State control, by IACS Members and Associates.

IACS: Committed to co-operation

IACS members are committed to full co-operation with port State control authorities and co-operation, assistance, strict reporting and data logging are all keys to IACS formal procedure for responding to port State control.

One of seven IACS Marine Safety Initiatives formally implemented on 1 January 1996, this procedure is mandatory in the response of IACS Members and Associates.

In brief summary, its detailed provisions are:

- A Port State request to attend on board a ship to assist with rectification's of provided deficiencies or other discrepancies will be dealt with promptly and positively.

- IACS Members will **Co-Operate and Assist** during port State control inspection by:
 - Ensuring that Class surveyors attend the ship when deficiencies related to Class and Statutory matters are found.
 - Providing port State control inspectors with relevant information.
 - Liaising with the Flag State in accordance with prior agreement and the owner's representative, to ensure that both are fully aware of actions being taken that affect Class-related or Statutory related matters.

- In the context of **Deficiencies**:
 - port State control inspectors will be urged to list deficiencies in relation to the specific Convention certificate concerned.

- Listings should indicate:
 - 1) All relevant deficiencies in the port State control inspection report.
 - 2) All deficiencies dealt with and details of actions taken for each, and
 - 3) Any deficiencies which with agreement of the surveyors and port State control inspectors, remain outstanding on the ship's departure and which are subject to special re-examination and attention by a specified date.

- In the context of **DETENTION REPORTS AND STATISTICS**:
 - Reported deficiencies will be promptly analysed and the following actions taken:
 - 1) Surveyors will provide detailed comments on any deficiencies of either class or statutory nature within the purview of the classification society or authority delegated to it and
 - 2) The Flag State will be provided with an updated summary of any deficiencies and actions taken.
 - 3) Database of referred deficiencies will be maintained. Database information will be able to show that recurring violations, by deficiency type and ship, are readily identifiable and include data on agreed actions taken.

- In the context of **PERFORMANCE**, the relative performance of each IACS Member and Associate in its port State control response and data logging activity is monitored as part of IACS Quality system by the IACS Permanent Secretariat.
 - An IACS Society will cooperate fully in the process of correcting any Class related safety deficiencies. The society may require corrective action(s), but authorisation to instruct repair expenditure and ultimately for any deficiencies is entirely that of the owner.

- In the context of **RESPONSIBILITY** IACS uses and supports the criteria of the United States Coast Guard. In summary, these USCG principles are that:
 - Interventions are conducted only when a vessel is unfit to proceed to sea or a treat to the marine environment.
 - Voyage damage will not be Class associated, unless other Class related deficiencies are noted during a damage survey.

- Equipment non-conformities will only be Class associated where equipment is covered by a Class survey, or where Class has issued certification on behalf of a Flag Administration.
- Where multiple deficiencies are noted, only those serious enough to justify intervention will be evaluated to determine Class non-conformities.
- When the cause of an intervention, outdated equipment will not be associated with Class non-conformity unless outdated at the time of the last survey conducted by Class on behalf of the flag Administration.
- When the cause of the intervention, the absence of highly pilferable equipment, it will generally not be listed as a Class non conformity, unless a large quantity is missing, and inspection is taking place within 90 days after the last survey on behalf of the Flag Administration.
- Expired certificates will not be associated with a Class non-conformity unless the certificates were not endorsed or properly issued by the Class Society when conducting the last survey on behalf of the Flag Administration.
- Interventions based on manning issues, whether conducted in accordance with SOLAS or STCW, will not be listed as Class non-conformities.
- Of 90 days will generally be placed on non-conformities associated with equipment failures, unless apparent that the deficiency is long standing.
- Failure of human factor-related testing will be associated with a Class non-conformity only when the Class society issued the relevant certificate, and then only for a specific period of 30 days.
- Serious wastage or other structural deficiencies not caused by voyage will be listed as class non-conformity.
- In all cases of Class non- conformities, the classification Society will be notified in writing. All cases should be subject to appeal to the relevant port State control authority, and all appeals should receive a written response.

Annexe 5

Table1: Port State Inspections Per Classification Society. For the Year - 1997

Classification society	No. of ships inspected	No. of ships with deficiencies	No. of detentions*
American Bureau of Shipping	821	429	33
China Corporation Register of Shipping (Taiwan, China)	180	130	24
Bulgarski Koraben Register	33	23	2
Bureau Veritas	608	378	58
Hellenic Register of Shipping	16	14	4
Biro Klasifikasi Indonesia	37	28	11
Det Norske Veritas	783	375	35
Registrol Naval Roman	8	7	2
Germanischer Llyod	513	230	26
DDR Schiffs Revision und klassification	50	26	1
Vietnam register of Shipping (Dan Kiem Viet Nam)	38	35	18
Korean Register of Shipping	716	454	38
Ceskoslovensky Lodin Register	7	5	0
Lloyd's Register of Shipping	1,356	699	69
Registro Cubano de Buques	3	2	0
Panama Bureau of Shipping	25	13	4
Nippon Kaiji Kyokai	4,274	2,302	199
Panama Register Corp	18	17	10
Honduras International Naval Surveying and Inspection Bureau	97	70	17
Polski Rejestr statkow	49	25	11
Panama Maritime Surveyors Bureau Inc	206	191	2
Registro Italiano Navale	88	54	8
NV Unitas	1	1	0
Cyprus Bureau of Shipping	3	2	0
Maritime Register of Shipping (Russia)	582	477	35
China Clasification Society	1,103	811	131
Indian Register of Shipping	57	46	3
Croatian Register of Shipping	21	16	0
Jugoslavenski registar Brodova	1	1	0
Register of Shipping (North Korea)	10	9	3
National Shipping Adjusters Inc	1	1	0
Others	1,252	647	86
Total	12,957	7,518	830

Table2: Port State Inspections Per Classification Society: For the Year 1998

Classification society	No. of ships inspected	No. of ships with deficiencies	No. of detentions*	Detention percentage %
American Bureau of Shipping	914	514	44	4.81
China Corporation Register of Shipping (Taiwan, China)	186	132	20	10.75
Bulgarski Koraben Register Bureau Veritas	20	14	6	30
Hellenic Register of Shipping	665	447	57	8.57
Biro Klasifikasi Indonesia	37	27	6	16.22
Det Norske Veritas	66	58	7	10.61
Registrol Naval Roman	943	487	45	4.77
Registro International Nvale (RINAVE Portugeuesa) SARL	3	3	0	0
Germanischer Llyod	3	3	1	33.33
DDR Schiffs Revision und klassifikation	705	400	41	5.82
Vietnam register of Shipping (Dan Kiem Viet Nam)	13	8	0	0
Korean Register of Shipping	34	30	7	20.59
Ceskoslovensky Lodin Register	802	540	63	7.86
Lloyd's Register of Shipping	2	5	0	0
Panama Bureau of Shipping	1,583	910	0	0
Nippon Kaiji Kyokai	12	9	5	41.67
Panama Register Corp	5,186	3,002	244	4.70
Honduras International Naval Surveying and Inspection Bureau	10	9	1	10.00
Polski Rejestr statkow	47	45	8	17.02
Panama Maritime Surveyors Bureau Inc	27	16	5	18.52
Registro Italiano Navale	96	87	4	4.17
INCLAMAR	123	90	19	15.45
Cyprus Bureau of Shipping	1	1	1	100
Maritime Register of Shipping (Russia)	59	58	2	3.39
China Clasification Society	559	464	48	8.59
Indian Register of Shipping	1,267	1,023	115	9.08
Croatian Register of Shipping Jugoslavenski registar Brodova	44	34	3	6.82
Register of Shipping (North Korea)	17	7	0	0
Rejnoj Registr RSFSR	9	9	2	22.22
Others	1	1	0	0
Total	1,110	796	242	21.80
	14,545	9,226	1,061	7.29

Note: Deficiencies for which a ship is detained may not necessarily be related tot he matters covered by the certificates issued by the classification society.

Source: Tokyo MOU Annual Report –1997-98

Annex 6

ABS proposal for survey of older vessels:

- limit class transfer of vessels 15 years of age or older to a window of six months following the Special Survey completion date unless an equivalent survey is conducted at the time of transfer
- require two Surveyors to attend all tankers and bulk carriers for Special Survey No.3 and for subsequent Intermediate and Special Surveys;
- strengthen the survey planning process by extending the requirements currently applied to Special Survey to all Intermediate Surveys following Special Survey 3;
- require surveyors to make a photographic record of the vessel during Special Survey No.3 and at subsequent Special and Intermediate Surveys. Photos to be part of the survey report and vessel records;
- maintain Class Records, including thickness measurement reports and photographs in simple, consistent computer format for the entire life of the vessel. These records to be transferred at changes in ownership or class. These records also to be available to flag State and Port State authorities on demand,
- further strengthen requirements governing the taking of thickness measurements. Require the class surveyor to be on board the vessel and to both direct and supervise the actions of the approved thickness measurement firm. Thickness measurement reports, in simple and consistent computer format, to be maintained on board the vessel and to be made available to flag State and port State authorities on demand;
- strengthen the Special Survey requirements for tankers including the Condition Assessment Program requirements (including a structural fatigue assessment), at Special Survey No.3 and subsequent Special Surveys;
- internally examine all ballast tanks on an annual basis after Special Survey No.3;
- strictly enforce requirements governing prompt and thorough repair and further tighten them to limit the circumstances under which any further sea passage can be undertaken. A prompt and thorough repair is defined as a permanent repair, completed at the time of the survey;
- develop guidelines for the application, maintenance and repair of coatings.
(ABS press release)

Annexe 7

As per the Asia Pacific studies conducted, the weakness in ISM Code implementation are appended below:

a) Poor level of working knowledge of the ISM Code within shipping companies:

This problem is pervasive, and it applies to the people both at sea and ashore. While people have all heard of the ISM Code, participants argue that actual knowledge of its 13 requirements, particularly their practical application, is very poor. Majority of seafarers have had no ISM training, and many companies are introducing ISM system without adequately preparing and training their staff. To make matter worse, people ashore are said to have even less knowledge of the ISM Code than seafarers to develop real competition in ISM.

b). Lack of ISM training: Maritime-training institutions have not incorporated the ISM Code into their curriculum. It is also argued that while STCW-95 does incorporate ISM training, the current level of teaching and assessment provided by many institutes does not enable seafarer to develop real competence in ISM. Confounding the problem is the flag State inaction. While few flag States are addressing ISM training many have done very little in improving ISM competence, despite the evidence raised by many port State control inspection which show that the seafarers are not competent in implementing the ISM Code.

c) Lack of Control over the auditing process: With respect to ISM audits, a main criticism is the uneven quality of ISM auditors. While there are some good experienced auditor around, there are also many that do the job without adequate ISM auditing training and experience.

In many cases, this often results in auditors failing to make realistic judgements on what are acceptable commercial shipping practices.

Another main component is the lack of consistency among auditors, and this applies even to those from the same auditing body. Not only does this often lead to greater no. of deficiencies, but it also creates confusion over what is really required.

d) Shortcuts to ISM implementation: While there are many examples of shipping companies that have gained a lot from implementing the ISM Code, these companies are typically the better and more respected operators whose standards of safety are always much higher than the average. As argued by a number of study participants, the ship operators and crews who need it the most, the ones with low and unacceptable safety standards, are the ones who have yet to fully embrace the ISM Code. These operators may indeed have certified systems with all the proper documentation to prove compliance but in reality, what they have are mere paper systems, which neither reflect current operation nor work practices.

Among the group, it is becoming a cheap option to purchase a model system, make some changes to it, and use it to get through the ISM audit. This, of course, defeats the whole purpose of the ISM Code, which is to tailor the ISM system to an organizations real business.

e) Negative attitude of seafarers. Largely as a result of the preceding problems, seafarers in general regard the ISM Code in a harsh light. Because in many instances, shore based management themselves do not understand or appreciate the ISM Code. This lack of proper regards for its implementation carries over to ship personnel. Given the general lack of training on the ISM code and what is seen as the additional paper trail that its implementation requires, seafarers tend to view ISM Code negatively, making it even harder for companies to generate broad based support.

Annexe 8

Target factor

Revised 10.3 .99

1. The Target Factor is in two parts:

Generic Factor-based on elements of the ships profile including the relevant priority criteria.

History Factor-based on the ships inspection history in the Paris MOU.

2. The Generic Factor for an individual ship is calculated by adding together the applicable elements of its profile according to the following table:

Element	Target Factor value
Targeted flag :% above 3yr average of (MOU members)(all flags)	
>30%	20
>20≤30%	15
>10≤20%	10
>6≤10%	5
>3 ≤6%	4
>0≤3%	3
Targeted ship type (ie liable to expanded inspection)	5
Non-EU recognised class society	5
Age:	
>25 years	3
21-24	2
13-20	1
Not all conventions ratified	1
Class deficiency ratio above average	1

3. Targeted flag-

Graduated for all targeted flags according to percentage above applicable 3-year rolling average.

Targeted ship type-

- i) Bulk carrier (type code 40) more than 12 years.
- ii) Gas carrier (type code 20, 21, 22) more than 10 years old.
- iii) Chemical Tanker (type code 30) more than 10 years old.
- iv) Oil tanker (type code 11, 12, 13) more than 20 years old.
- v) Passenger ship/ro-ro ferry (type code 70 & 71)

Non EU recognised classification society-

A class society not appearing on the list of recognised societies published by EC Commission. If no class is recorded in SIRENAC (other than withdrawal/suspension of class for safety reasons) the ship will be assumed to be classed with an EU recognised class society.

Ships more than 12 years old-

Graduated for non-targeted ship types and passenger ships

Not all conventions ratified-

Flag states who have not ratified all 7 main conventions.

Class deficiency ratio above average-

As identified in MOU annual deficiency statistics.

3. The Generic Factor is updated when the particulars of the ship change or the status of its existing flag or class change.

History Factor

4. The History Factor is applied to the Generic Factor to reflect the actual condition of the ship found by inspection.
5. The History Factor is calculated by applying the elements in the following table to each Paris MOU inspection of the ship carried out in the previous 12 months.

Element	Target Value	Remarks
1. Entering a region port for the first time in the last 12 months	+20	No inspection recorded in SIRENAC in the last 12 months.
2. Not inspected in last 6 months	+10	No inspection recorded in SIRENAC in the last 6 months.
3. Detained	+15	The values for deficiencies and outstanding deficiencies (elements 4&5 below) are added.
4. Number of deficiencies: 0 1 to 5 6to10 11 to 20 21+	-15 0 +5 +10 +15	The values for outstanding deficiencies (element) are also added when appropriate.
5. Outstanding deficiencies from last inspection	+1 for each code 17 & 15 and for every two 16 and /or 99 -2 if code 12 present (all defs. rectified)	The value for the outstanding deficiencies is applied only in respect of the latest inspection.

6. The overall Target Factor is calculated by adding the Generic and History Factor but cannot be less than the Generic Factor.

8. Target Factors are re-calculated by CAAM at the end of each day.

Annexe 9

PORT STATE CONTROL AGREEMENTS: COMPARATIVE TABLE

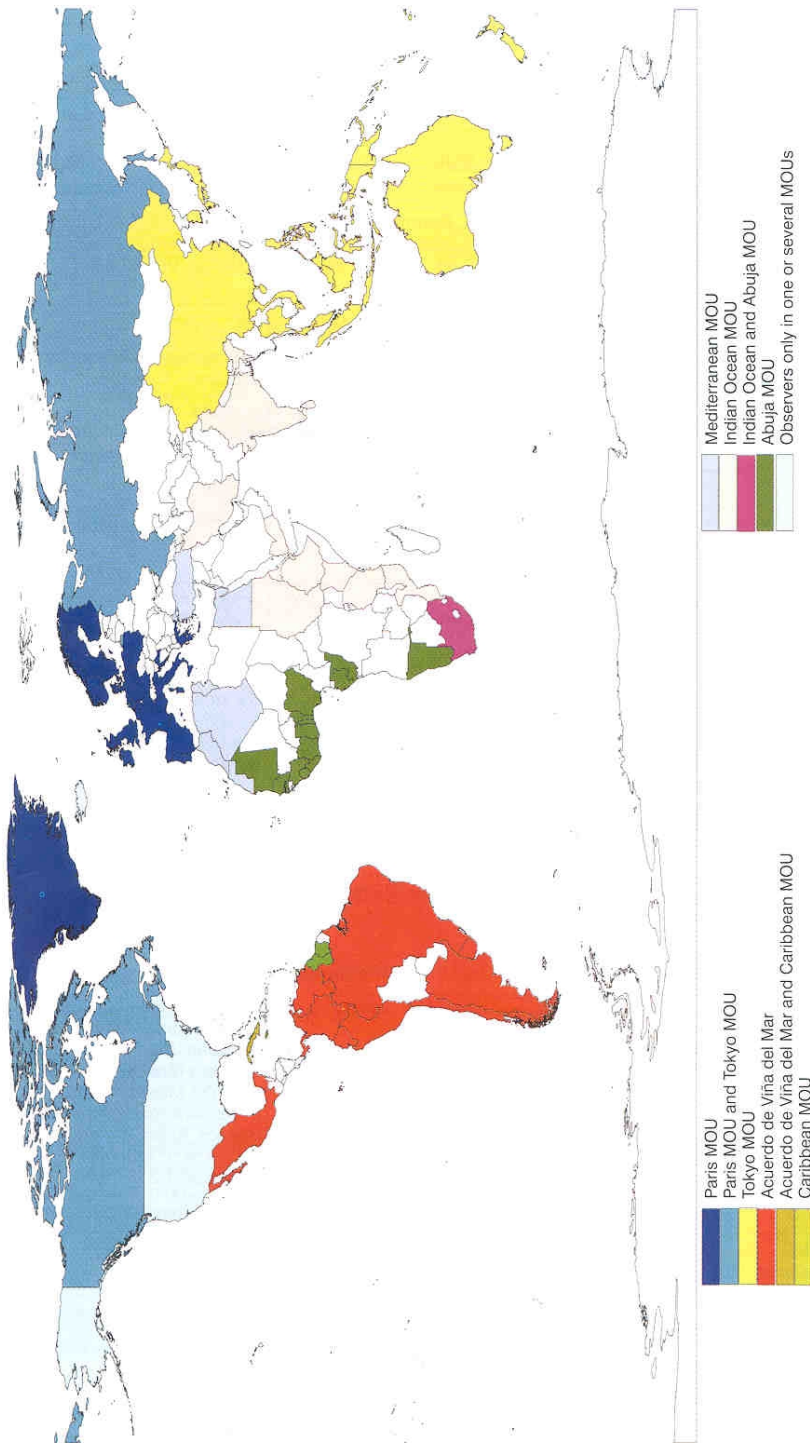
	Paris MOU	Acuerdo de Viña del Mar
Members	18 Belgium, Canada, Croatia, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Russian Federation, Spain, Sweden, UK	12 Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Panama, Peru, Uruguay, Venezuela
Observers	Japan, USA, IMO, ILO, Tokyo MOU, Iceland	IMO, CEPAL
Target inspection rate	25% annual inspection rate per country	15% annual inspection rate per country within 3 years
Relevant instruments	LL 1966 and LL PROT 1988 SOLAS 1974 SOLAS PROT 1978, 1988 MARPOL 73/78 STCW 1978 COLREG 1972 TONNAGE 69 ILO Convention No. 147	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972
Special attention	<ul style="list-style-type: none"> - ships which have been reported by pilots or port authorities as being deficient - ships carrying dangerous or polluting goods which have failed to report relevant information - ships which have been subject of a report or notification by another authority - ships which have been subject of a report by the master, a crew member, etc. - ships which have been suspended from class during the preceding 6 months 	<ul style="list-style-type: none"> - passenger ships, ro-ro ships, bulk carriers - ships which may present a special hazard - ships which have had several recent deficiencies
Amendments	will take effect 60 days after acceptance	will take effect 60 days after acceptance
Information Centre	Centre Administratif des Affaires Maritimes (CAAM), Saint-Malo, France	Centro de Información del Acuerdo Latinoamericano (CIALA), Prefectura Naval Argentina, Buenos Aires
Committee	a representative of each of the authorities and the EC Commission	a representative of each of the authorities
Secretariat	The Hague, The Netherlands Mr. R.W.J. Schiferli Secretary of the Paris MOU Nieuwe Uitleg 1 2514 BP The Hague, The Netherlands Tel: +31 70 351 1509 Fax: +31 70 351 1599	Buenos Aires, Argentina Mr. Juan Jose Beltritti Prefecto Mayor Viña del Mar Agreement Secretariat Prefectura Naval Argentina Buenos Aires, Argentina Tel: +54 1 318 7455 Fax: +54 1 318 7547
Signed	1 July 1982	5 November 1992
Official languages	English, French	Spanish, Portuguese

	Tokyo MOU	Caribbean MOU
Members	18 Australia, Canada, China, Fiji, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Papua New Guinea, Philippines,* Russian Federation, Singapore, Solomon Islands*, Thailand, Vanuatu, Viet Nam, Hong Kong (China)	20 Anguilla*, Antigua & Barbuda, Aruba, Bahamas, Barbados, Bermuda*, British Virgin Islands*, Cayman Islands, Dominica*, Grenada, Guyana, Jamaica, Montserrat*, Netherlands Antilles, Saint Kitts & Nevis*, Saint Lucia*, Saint Vincent & the Grenadines*, Suriname*, Trinidad & Tobago, Turks & Caicos Islands*
Observers	Brunei, USA, IMO, ILO, ESCAP, Paris MOU, Indian Ocean MOU	IMO, ILO, CARICOM, IACS, Anguilla, Montserrat, Turks & Caicos, Canada, USA, Netherlands, Paris MOU, Viña del Mar MOU, Tokyo MOU
Target inspection rate	50% annual regional inspection rate by the year 2000 (achieved in 1996)	10% annual inspection rate per country within 3 years
Relevant instruments	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 ILO Convention No. 147	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 ILO Convention No. 147
Special attention	<ul style="list-style-type: none"> - passenger ships, ro-ro ships, bulk carriers - ships which may present a special hazard - ships visiting a port for the first time or after an absence of 12 months or more - ships flying the flag of a State appearing in the 3-year rolling average table of above-average detentions - ships which have been permitted to leave the port of a State with deficiencies to be rectified - ships which have been reported by pilots or port authorities as being deficient - ships carrying dangerous or polluting goods which have failed to report relevant information 	<ul style="list-style-type: none"> - ships visiting a port for the first time or after an absence of 12 months or more - ships which have been permitted to leave the port of a State with deficiencies to be rectified - ships which have been reported by pilots or port authorities as being deficient - ships whose certificates are not in order - ships carrying dangerous or polluting goods which have failed to report relevant information - ships which have been suspended from class in the preceding 6 months
Amendments	will take effect 60 days after acceptance	will take effect 60 days after acceptance
Information Centre	Information Centre Vancouver, Canada	Information Centre Curaçao, Netherlands Antilles
Committee	a representative of each of the authorities	a representative of each of the authorities
Secretariat	Tokyo, Japan Mr. Y. Sasamura Secretary, Tokyo MOU Secretariat Tomoecho Annex Building 6F 3-8-26, Toranomom Minato-Ku, Tokyo Japan 105 Tel: +81 3 3433 0621 Fax: +81 3 3433 0624	St. Michael, Barbados Mrs. Valerie Browne Secretary of the Caribbean MOU International Transport Division Herbert House Fontabelle St. Michael, Barbados Tel: +246 430 7507 Fax: +246 436 4828
Signed	2 December 1993	9 February 1996
Official languages	English	English

	Mediterranean MOU	Indian Ocean MOU
Members	10 Algeria*, Cyprus, Egypt, Israel*, Jordan, Malta, Lebanon, Morocco*, Tunisia, Turkey and the Palestinian Authority*	15 Djibouti, Eritrea, Ethiopia, India, Iran, Kenya, Maldives, Mauritius, Mozambique, Seychelles, South Africa, Sri Lanka, Sudan, Tanzania, Yemen
Observers	IMO, ILO, EC	IMO, ILO, PMAESA
Target inspection rate	15% annual inspection rate per country within 3 years	10% annual inspection rate per country within 3 years
Relevant instruments	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 ILO Convention No. 147	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 TONNAGE 69 ILO Convention No. 147
Special attention	<ul style="list-style-type: none"> – ships visiting a port of a State for the first time or after an absence of 12 months or more – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships whose certificates are not in order – ships carrying dangerous or polluting goods which have failed to report relevant information – ships which have been suspended from class in the preceding 6 months 	<ul style="list-style-type: none"> – ships visiting a port of a State for the first time or after an absence of 12 months or more – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships whose certificates are not in order – ships carrying dangerous or polluting goods which have failed to report relevant information – ships which have been suspended from class in the preceding 6 months
Amendments	will take effect 60 days after acceptance	will take effect 60 days after acceptance
Information Centre	Information Centre Casablanca, Morocco	Information Centre Goa, India
Committee	a representative of each of the authorities	a representative of each of the authorities
Secretariat	Alexandria, Egypt Adm. Hani Hosni Secretary, Mediterranean PSC Secretariat 27 Admiral Hamza Pasha Street Roushdy Alexandria, Egypt Tel: +203 544 6538/5446537/5427949 Fax: +203 546 6360	Goa, India Mr. B. Ganguli Secretary I.O.M.O.U. Secretariat Head Land, Sada Near Antarctic Study Centre Vasco-da-Gama Goa 403 804, India Tel: +91 834 519383 Fax: +91 834 519383
Signed	11 July 1997	5 June 1998
Official languages	English, French and Arabic	English

	Abuja MOU	Black Sea MOU*
Members	16 Benin, Cape Verde, Congo, Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Liberia, Mauritania, Namibia, Nigeria, Senegal, Sierra Leone, South Africa, Togo	6 Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine
Observers	IMO, ILO, MOWCA, Burkina Faso, Mali	IMO, ILO
Target inspection rate	15% annual inspection rate per country within 3 years	15% annual inspection rate per country within 3 years
Relevant instruments	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 TONNAGE 69 ILO Convention No. 147	LL 1966 SOLAS 1974 SOLAS PROT 1978 MARPOL 73/78 STCW 1978 COLREG 1972 TONNAGE 69 ILO Convention No. 147
Special attention	<ul style="list-style-type: none"> – ships visiting a port of a State for the first time or after an absence of 12 months or more – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships whose certificates are not in order – ships carrying dangerous or polluting goods not reporting all information – ships suspended from class 	<ul style="list-style-type: none"> – ships visiting a port of a State for the first time or after an absence of 12 months or more – ships which have been permitted to leave the port of a State with deficiencies to be rectified – ships which have been reported by pilots or port authorities as being deficient – ships whose certificates are not in order – ships carrying dangerous or polluting goods not reporting all information – ships suspended from class – ships which have been subject of a report or notification by another authority
Amendments	will take effect 60 days after acceptance	will take effect 60 days after acceptance
Information Centre	not yet operating	not yet determined
Committee	a representative of each of the authorities	a representative of each of the authorities
Secretariat	Lagos, Nigeria Mrs. B.O. Williams Director, Maritime Services Department Federal Ministry of Transport Federal Secretariats Complex Abuja, Nigeria Tel: +234 9 523 0879 Fax: +234 9 523 3705	not yet determined
Signed	22 October 1999 ✓	
Official languages	English, French	

Regional agreements on port State control



Source . IMO News

Annexe 10

Questioner and Replies from the Secretaries of MOU's

To,
The Secretary,
The Paris MOU, The Acuerdo de Vina del Mar, The Tokyo MOU, The Caribbean MOU, The Mediterranean MOU, The Indian Ocean MOU, and The Abuja MOU.

Dear Sir,

I am a student at World Maritime University, Malmo, Sweden and as part of the course, writing my dissertation. My topic is on port State control. I am enclosing a questioner, and shall be grateful if it is forwarded back to me after stating your opinion.

With regards
(D. Mehrotra)
5th April, 2000

e mail: S00073@wmu.se
Fax: + 46 40 124827.

Questioner

- How far in your opinion, MOU's between different States has helped in eradicating sub-standard ships from your region?
- Does co-operation between MOU's help in eradicating substandard ships?
- Will exchange of data between all MOU's after inspection of the vessel by the PSCO, help in keeping a track on substandard ship?
- In your opinion, will the common network of database be useful, i.e all MOU's sending information to a common data base, not only for detained ships, but also for ships inspected and not detained but with deficiencies.
- Is there a need for a Global MOU ? So as to have a common standard all over, and also, to avoid duplication of inspection.

From: "Ning" <tmou.okada@nifty.ne.jp>
To: "Dilip MEHROTRA" <S00073@wmu.se>
Subject: **Re: Questioner**
Date sent: Fri, 7 Apr 2000 13:57:39 +0900

Our reference: TMS00/113

Dear Mr. Mehrotra:

Reference of your message dated 6 April 2000, questionnaire on port State control.

As requested, we would like to provide the following information for your reference:

Questions 1 & 2

It is for sure that establishment and operation of the MOU would help to eliminate substandard ships in the region. Now, under the Tokyo MOU, there are more than 14,000 PSC inspections conducted by member Authorities annually. And more than 50,000 deficiencies are found during inspections and more than 1,000 detentions are made to substandard ships each year. This could be seen as the clear indication of effectiveness of the MOU in elimination of substandard ships.

Question 3

Exchange of PSC inspection information will provide a tool for tracking substandard ships and targeting ships for inspection. It is advised that a new PSC information system had been launched at the beginning of this year. The new system is developed by using internet technology and would provide a more efficient way and more user-friendly interface for data exchange and input. The new system will ensure full inspection details be properly recorded and storage of whole inspection history of ships.

Question 4

From our point of view, it would be important and useful to exchange information between regional MOUs. At present, we have the agreement with the Paris MOU for inter-regional data exchange. For data exchange between all MOUs, it could be only possible when each MOU had established its database system and accumulated enough data for exchange. Based on the present situation, it appears not feasible for the establishment of a common PSC network database.

Question 5

It is not clear for us what Global MOU means. If such a MOU would be a worldwide organization on port State control, it would look not necessary. Because, as the UN specialized agency, IMO is the international body responsible for safety of shipping and protection of the marine environment and the work of IMO covers both flag State implementation and port State control. Therefore, we think IMO is the only appropriate international forum to discuss port State control, rather than Global MOU. Of course, it would be the most effective way to eliminate substandard ships if all regions around the world established appropriate port State control system and a worldwide port State control network could be formed in future. But it should be understood that there is a quite long way to achieve this goal.

I hope the above information would be of reference for you.

Yours faithfully,

=====
Mitsutoyo OKADA
Deputy Secretary
Tokyo MOU Secretariat
=====

Date sent: Mon, 10 Apr 2000 12:35:31 +0200
From: Natascha Dofferhoff <natascha.dofferhoff@parismou.org>
To: S00073@wmu.se
Subject: Questioner

Dear Mr Mehrotra

Following your questions on your questioner I can inform you as follow.

Yes, the establishment of the Paris MOU has helped in eradicating sub-standards ships from this region and also the co-operation with other MOU's helps.

With the Tokyo MOU, the Paris MOU exchanges information , due to this it is possible to keep track of sub-standard ships. However an inspection in the Tokyo MOU will not be seen as an inspection in the Paris MOU.

The linking of databases from different MOU's could be an idea, with this linking you can create some sort of Global MOU. However a condition should be that all agreements of the MOU's are in line with each other, that all inspection are performed in the same way and on the same level.

Yours sincerely

Mrs Natascha Dofferhoff
Assistant Secretary
Paris MOU on Port State Control

From: "IOMOU" <iomou@goa1.dot.net.in>
To: <S00073@wmu.se>
Subject: Questionnaire on PSC
Date sent: Thu, 13 Apr 2000 13:25:12 +0530

Dear Mr. Mehrotra, Appended below please find the reply to your questionnaire, seriatim :

- 1) This MOU is operational for just about a year. As such the statistical figures are not available to give a positive reply. However, it felt that the system is effective, since all the states in the region has started implementing PSC.
- 2) The answer to this is same as above as the co-operation / harmonisation between MOUs is yet to take shape.
- 3) Affirmative.
- 4) There may not be a common database but accessibility of data from any MOU will be useful.
- 5) Harmonisation of MOUs is being contemplated. Probably, IMO will be in a better position to reply this.

Hope this helps you in your task.

Best wishes for your success.

B. Ganguli,
Secretary,
IOMOU Secretariat



Mediterranean MoU on PSC Secretariat
سكترارية رقابة دول البحر المتوسط على الموانئ

الإسكندرية - مصر
Alexandria - Egypt

FAX MESSAGE

TO : WORLD MARITIME UNIVERSITY
ATT. : **MR. D. MEHROTRA**
STUDENT
FAX # : +46 40124827
FRM : **CAPT. EMAD ISLAM**
DEPUTY SECRETARY
MED. MOU SECRETARIAT
FAX # : +203 5466360
DATE : 13/4/2000
PAGES : 1 (INCLUDING THIS ONE)
SUBJECT : YR FAX DATED 10/4/2000

REF. TO YR FAX DATED 10/4/2000, WE WLD BE GLAD TO ANSWER YR 5 QUESTIONERS AS FOLLOWS :

- MOU'S HAS NO STANDARD LEVEL. THERE IS SOME MOU'S WHO HAVE HELPED BETWEEN ITS DIFFERENT STATES IN ERADICATING SUB-STANDARD SHIPS LIKE PARIS & TOKYO MOU'S; BUT OTHER MOU'S DID NOT HELP SO FAR TILL TODAY IN AN ADEQUATE MEASURES.
- YES AFTER HARMONIZATION BETWEEN MOU'S.
- YES.
- YES.
- YES.

B. RGRDS.

CAPT. EMAD ISLAM
DEPUTY SECRETARY

FOR THE SECRETARY GENERAL

From: "Barrie Rial" <rial_wb@candw.ky>
To: "Professor Mukherjee" <pkm@wmu.se>
Subject: Response to Student's Questionnaire on PSC
Date sent: Mon, 24 Jul 2000 03:30:33 -0400

Dear Mr Mehotra

I have recently received your questionnaire by fax from the WMU, which I understand you sent to the Secretariat of the Caribbean MOU. I am sorry to hear you did not yet receive a response. This is attached, and I trust you will find it useful.

a.. Question 1.

There is no doubt that an organised Port State Control (PSC) has assisted in reducing the number of substandard ships operating world-wide. Such ships are not yet however eradicated, but the more effective a given region's PSC programme and capability becomes, the less potential exists for substandard ships and operators to ply that region unchallenged – as has been the case in the past.

It is difficult to quantify "how far" the eradication has progressed, for a number of reasons. First there was really no base figure to start from, though everyone realised there were too many and substandard ships. Secondly, the statistics need to be analysed and are subject to different interpretations. For example, when first embarking on a PSC regional programme, what will be considered substandard are the blatant offenders, and these will tend to receive priority attention. As the standards increase, there will be a tendency to "move the goal posts", and ships that at first were considered not that bad will receive more attention. This is evident in Europe, where ships are being detained for matters which some years ago they would not have been detained. This development may be partly politically driven (a form of "unofficial cabotage" against ships the region would rather not have trading in the region for economic reasons). On the other hand there are reports of unabashed abuse of authority in the form of extortion, where a ship is threatened with detention if certain "charges" are not paid, are forced to purchase unnecessary

equipment or face costly delays. Both trends are worrying and perhaps it is time to try and define what a substandard ship is; though admittedly this is a difficult and contentious task.

a. Question 2

Again there is little doubt that co-operation between MOU's assists in eradicating substandard ships, since a joint effort can bring greater pressure on a substandard ship to come up to an acceptable standard. This is in the context of a "bad" ship not escaping attention in a neighbouring PSC region.

a. Question 3

Again the exchange of data between all MOUs is bound to assist in keeping track of a substandard ship. Indeed, I see this as a natural and necessary progression from the regional to a global system of PSC programmes. It will also help to prevent unnecessary inspections of "good" ships.

a. Question 4

A common network of databases would assuredly be useful, to track both the bad and the good ships, and again I see this as a necessary and inevitable progression of the system. Given today's advanced information technology, a global information centre should not be difficult to achieve, and would probably be more cost effective overall.

a. Question 5

From the responses so far, it follows that the natural progression of the PSC regional regimes is toward a global regime, though there will remain some regionalisation since each region will have its indigenous traders. This is with respect to the "hardware" side of things – the actual inspection of ships. If a global communications centre is properly set up, any region should be able to utilise it for global or regional information.

Please note that these responses, whilst given from my perspective as Chairman of the Caribbean MOU, are my own personal views, though I am

sure they are shared by most members of the Caribbean MOU.

Best wishes with your work.

Kind regards

Captain W B Rial

Chairman

Caribbean PSC Committee