THE CONTROL OF TANKERS IN INTERNATIONAL LAW WITH PARTICULAR REFERENCE TO FLAGS OF CONVENIENCE

by

ALFRED POPP

Thesis submitted to the School of Graduate Studies of the University of Ottawa in partial fulfilment of the requirements for the degree of Master of Law (LL.M.)

AUGUST 1979

DEDICATION

To Alina and Andrew and Edward who had to put up with a lot during the preparation of this thesis.

Abstract

Since the Torrey Canyon disaster in March 1967, tanker incidents have happened with distressing regularity culminating in the biggest tanker disaster of all times in March 1978 involving the Liberian tanker, the Amoco Cadiz. The causes of these accidents, which result in massive pollution of shorelines, fisheries and destruction of birdlife, are technical and human - faulty construction, breakdown of vital equipment, error in judgement. As such they lie beyond the scope of a legal study.

However, the question does arise concerning the standards to which these huge ships are designed, constructed, manned and equipped. Who establishes these standards, who enforces them, and how effective is enforcement? These questions give the problem of tanker incidents a legal dimension. Fundamental principles of international law are involved - freedom of the high seas, flag state jurisdiction. Also, how effective has international cooperation been working through the mechanism of the Intergovernmental Consultative Organization (IMCO), in tackling tanker safety and protection of the marine environment.

Several elements are involved. On the one hand, ships by and large, fall under the control of the state whose flags they are entitled to fly. Even in the territorial sea and ports of a foreign power, the flag state retains some control. It is on the flag state, therefore, that primary responsibility falls to ensure that ships are properly constructed, equipped, manned and operated. On the other hand, the conditions under which ships may acquire the right to fly a flag is left to the state concerned. If conditions are lenient this can and has led to the creation of large fleets, sometimes referred to as flags of convenience.

The evidence suggests that flags of convenience do not have a good safety record. However, the problem is not confined to these fleets. The evidence further suggests that lack of administrative machinery to exercise effective control over these fleets is an important factor in their bad safety record.

IMCO, in contrast to a number of other international bodies, notably, the International Civil Aviation Organization (ICAO), is strictly a consultative organization. The task of standard setting is largely achieved by the process of adopting and amending international conventions. The implementation of these conventions, however, rests with states and since entry into force is usually tied to ratification by states having a

minimum amount of the world's tonnage, their entry into force depends on the large maritime states, including states offering flags of convenience.

The conventions themselves have adhered strictly to traditional principles of flag state jurisdiction. They seek, on the one hand, to render uniform standards of ship design, construction and equipment, while limiting the power of port states to control ships by imposing acceptance of "convention" certificates. They also permit states to delegate their duties of survey and certification to non-governmental agencies such as classification societies. Moreover, the all-important subject of manning is largely left to the flag administrations to control.

Collision at sea is also a significant source of tanker incidents. Here, too, traditional principles of flag state jurisdiction have a role since adherence to routing systems on the high seas in crowded waterways such as the English Channel are voluntary except where flag states have made them mandatory.

In recent years a serious effort has been made to tackle the problem of tanker safety. Rapid amendment procedures have been included in a number of important conventions dealing with design, construction, equipment and manning of ships. These procedures will enable IMCO, through its technical bodies, to respond quickly where shortcomings are perceived or progress in technology dictates change in the interest of greater safety.

The emerging regime at the Third United Nations Conference on the Law of the Sea attempts to spell out more precisely the controls that flag states must exercise over their ships. While the principle of international standard setting for design, construction, equipment and manning of ships has been firmly established, port states and coastal states have been given significant enforcement powers. At conferences under the auspices of IMCO improvements in design, construction and equipment of ships have been introduced into the principal conventions governing safety of life at sea and protection of the marine environment. An attempt has also been made to define more precisely the relationship between classification societies and the flag state that nominates them to carry out its obligations of survey and certification under these conventions. Finally, the all important subject of training and certification has been tackled in an effort to lay down some minimum standards and thereby contribute to tanker safety. However, the new convention that has been adopted is a start only. There remains the problem of adequate manning.

The above instruments, however, largely remain inoperative for lack of ratification. While the tanker disaster,

the Amoco Cadiz, may produce more instruments which might contribute further to tanker safety, that contribution is likely to be marginal in comparison to the contribution that would result from implementation of existing instruments. The emphasis must, therefore, be in the years to come on implementation of existing instruments.

Finally, the indications are that while flags of convenience remain an important element of the problem, recent tanker incidents suggest that the nature of the problem is changing. For a start, with the emergence of the new regime, represented by the various new instruments that have been adopted, flag state jurisdiction is likely to decline as a factor of importance. A new problem is emerging - growing merchant fleets in the developing countries, without the means or the will to impose adequate standards.

As in other fields, therefore, technical assistance is of primary importance. This provides IMCO with a new and important role of channelling and coordinating that assistance.

ACKNOWLEDGEMENTS

This thesis was made possible because of my present position as a legal counsel attached to the Department of Transport. My gratitude must in the first instance go to that Department, in particular, to the members of the Coast Guard who gave me much valuable advice and a more profound understanding of the technical aspects of the subject treated in this thesis.

My gratitude also goes to the Department of Justice that has supported me in this study, making time and material available to complete the study. In particular, my thanks must go to my colleagues in the Legal Services of the Department of Transport who took time to read drafts or parts thereof and provided me with useful comments.

My special thanks, also, goes to Prof. Donat Pharand who directed my studies and gave me valuable advice both on the substance of the thesis and the manner of its presentation.

Finally, a particular word of thanks to Mrs. L. Dougherty who showed inexhaustable patience and good humour in the typing and retyping of drafts and completion of the final version.

CONTENTS

INTRODUCTION

On March 18, 1967, the Liberian tanker, the Torrey Canyon, stranded on Pollard Rock, part of the Seven Stones Reef, in international waters off the southwest coast of England spilling its cargo of 119,328 tons of crude oil into the sea. The oil spillage resulted in unsightly fouling of British and French beaches, contaminated oyster beds and fisheries and caused extensive damage to birdlife.[1]

Almost exactly eleven years later, in the evening of March 16, 1978, on the other side of the Channel, another Liberian tanker, the Amoco Cadiz, grounded on the northwest coast of Brittany, the steering engine having broken down.[2] The indications are that the break-up of the tanker was the worst marine pollution disaster since the Torrey Canyon.[3]

Between these two incidents, tanker accidents have occurred with distressing regularity, usually during the

[1]For a factual account of the incident, see United Kingdom, Secretary of State for the Home Department, Coastal Pollution, Observations on the Report of the Select Committee on Science and Technology, Comnd.3880, 1969, paragraphs 11-14.

[2]Liberia, Bureau of Maritime Affairs, Interim Report of the Formal Investigation, February 23, 1979, Monrovia, at ii.

[3]An excellent series of photographs on the Amoco Cadiz disaster appears in National Geographic, Vol. 154, No. 1, July 1978, at 126-135.

winter months when the demand for oil in the northern hemisphere rises sharply. Heavy oil tanker traffic in the winter months also coincides with bad weather conditions in many areas of the sea.

The North American continent, the Canadian coastline included, has not been spared from such tanker incidents. On February 4, 1970, the Liberian tanker, the Arrow, grounded on Cerebus Rock, off the coast of Nova Scotia in Canadian territorial waters due to improper navigation by the master[4] costing the Canadian Government millions of dollars in extensive clean-up operations. It was this incident that served as background to the adoption by Parliament of Part XX of the Canada Shipping Act,[5] the Canadian response to the problem of pollution by ships of the marine environment.

In the winter of 1976/77 there was a veritable spate of incidents off the coast of North America. The most notable of these accidents was the grounding of the Liberian tanker,

[4]See Canada, Royal Commission, Pollution of Canadian Waters by Oil and Formal Investigation into the Grounding of the Steam Tanker "Arrow", Judgement, at 40-41.

[5]R.S.C., 1970, 2nd Supp., c.27.

the Argo Merchant, off Nantucket Island, Mass., on December 15, 1976. In the following two weeks there were four further incidents, three involving Liberian tankers and one a Panamanian tanker.[6]

While it has been suggested that the contribution of tanker disasters to the pollution of the marine environment may be small in overall figures in comparison with operational discharges,[7] disasters such as the Torrey Canyon, the Arrow and the Amoco Cadiz, because of their occurrence close to the coast, have served to illustrate the phenomenal damage they can do to coastlines and related interests.

An examination of the circumstances of tanker accidents reveals certain recurring factors. In many instances the accidents were due to human error. Thus, in the case of the Torrey Canyon the accident was attributed to an error in navigation, the ship having taken a channel that masters were specifically advised not to enter.[8] In the case of the Arrow,

[6]For a summary of these incidents, see "Demolition Derby at Sea", Time, January 24, 1977, at 35.

[7]It has been estimated that tanker accidents only contribute 0.2% of the total input of oil into the sea and that marine transportation in general accounts for 6.113%, see Y. Sasamura, Environmental Impact of the Transportation of Oil, IMCO, 1977, paragraph 9. However, these percentages may need considerable revision in the light of recent tanker incidents, notably, the Amoco Cadiz disaster.

[8]See supra Note 1, at paragraph 13.

the accident was caused by the improper navigation by the master in failing to maintain his plotted course and omitting to check his course for over an hour while proceeding virtually at full speed.[9]

Other factors emerge. For example, in the case of the Torrey Canyon, the master was under instructions to reach his port of destination, Milford Haven, Wales, by high water on the day the accident occurred so as not to miss entry into port. A late arrival would have meant a delay of five days outside port awaiting the next high water.[10] Delays of this kind are very costly, especially for tankers. Thus, while the master perceived his error in entering the channel in time to correct it, he took the risk of proceeding to avoid delay.[11]

In other instances subsequent examination has revealed the existence of faulty navigational equipment. The inquiry into the Arrow disaster, for example, revealed that the ship,

[9]See supra Note 4, at 41.

[10]E. Cowen, Oil and Water, The Torrey Canyon Disaster, Lippencott, Philadelphia, 1968, at 39.

[11]In this regard see N. Mostert, Supership, Alfred Knope, New York, 1974, at 153-4, with respect to the dilemma facing a master confronted with breakdown of vital equipment and the question of whether to call in a tug at great expense to the shipowner.

despite its examination by a reputable classification society some nine days before the accident, had radar equipment that did not function properly.[12] Human error, pressures imposed by keeping to schedules and faulty equipment are key factors in tanker disasters.

There are other preoccupying elements, notably, the size of the ships themselves. In 1967 the Torrey Canyon was considered a giant ship with its carrying capacity of 119,000 or so tons. In the twelve years since the disaster 300,000 ton vessels and 500,000 ton vessels (VLCCs, very large cargo carriers and ULCCs, ultra large cargo carriers, as they are known in the trade) have become a reality.[13]

The growing demand for oil and the knowledge that over a certain tonnage increasing the size of ships does not result in a proportionate increase in operating costs have provided the necessary incentive for the construction of such large ships.[14] The potential for pollution damage by one of

[12] See supra Note 4, at 21-22.

[13] See, for example, the report on the launching of the Esso Pacific, 508,268 tons, and other oil tankers mentioned in Maritime Reporter and Engineering News, February 1, 1978, at 6.

[14] For an instructive review of the reasons for the growth of tankers, see A.W. Anderson "National and International Efforts to Prevent Traumatic Vessel Source Oil Pollution" 30 U. of Miami L. Rev., 1976, 985 at 998-1000. For figures illustrating the massive increase of oil transported by sea (250 million tons in 1954 to 1,700 million tons in 1977) see, Work Programme of IMCO in the Field of Marine Environment Protection, April 4, 1979, IMCO Doc. MEPC XI/INF.4, at 3.

these ships in congested coastal waters, judging by the incidents so far mentioned, is enormous.

Human error, faulty equipment, vessel size are the explanations for particular tanker accidents. However, wider considerations present themselves, for example, the technical standards that ships and their equipment are required to meet and the manner in which these are enforced. With respect to human error, questions arise concerning the training of masters and crews and the adequacy of manning aboard ships, in particular, aboard super tankers.

Public discussion of tanker incidents has focused on two aspects. Firstly, the frequency with which certain flags, commonly referred to as flags of convenience, are involved in these disasters. It has been suggested that in some instances countries have such large fleets that their marine administrations, if they exist, are incapable of exercising control over the condition of the ships and their equipment and the qualification

and numbers of the crews that operate them. As it was once put in connection with the fleet of Liberia, the only thing Liberian about her ships is the flag that they fly on their poop.[15]

The second aspect has to do with the apparent unwillingness or inability of public authorities, including international organizations, to take adequate action to avoid these disasters, notably by adopting and enforcing standards that would eliminate substandard shipping, improve the quality of crews and ensure adequate manning. The Intergovernmental Maritime Consultative Organization (IMCO) has come under particular criticism. Not only has its inability to act been noted but more seriously it has been implied that the maritime community has closed its eyes in the face of recurring disasters.[16]

At the centre of the question of enforcement of standards is the basic principle of international law that ships

[15] M. Emmanuel du Pontavice, "Les Pavillons de Complaisance" 29 Droit Maritime Français, at 504.

[16] In the wake of the Amoco Cadiz disaster, a French politician remarked that it was as if nothing had been learnt from previous disasters, see Globe & Mail, March 18, 1978, 1.

on the high seas fall under the jurisdiction of the state whose flag they fly. The primary duty, thus, of ensuring that ships are properly constructed, equipped and manned falls on the flag state. This provides the problem of tanker incidents with a legal dimension over and above the actual causes of any particular disaster.

The object of this study is, therefore, to examine the principle of flag state jurisdiction in relation to the adoption of adequate design, construction, manning and equipment standards. Has this principle provided an adequate tool in the control of ships, in particular tankers, for the purposes of enforcing these standards? How satisfactory is this principle as a control mechanism in the light of the phenomenal growth of certain fleets, especially those registered under flags of convenience?

The study is divided into six sections. In the first section some facts are presented to define the problem, namely, which fleets are principally involved in maritime casualties

and the causes therefor that have been identified.

The second section is devoted to a review of the principle of flag state jurisdiction.

The third section examines a number of maritime conventions concerned with safety and protection of the marine environment, in particular, the control provisions thereof designed to achieve compliance with the standards set by these conventions.

The fourth section is devoted to IMCO, specifically how it accomplishes its work of international regulation of shipping. A brief comparison is also made with the manner in which the International Civil Aviation Organization (ICAO) does its work of international regulation in aviation.

The fifth section examines recent developments in international law designed to improve tanker safety and protection of the marine environment.

The sixth and final section assesses these recent developments and makes some suggestions where future efforts should be directed to improve tanker safety and protection of the marine environment.

Section I - Definition of the Problem

A. Introduction

In the public discussion surrounding the various tanker incidents over the last few years it has been suggested that some states are not exercising proper control over their fleets. Particular attention has focused on states offering flags of convenience. The lack of control, it is alleged, has resulted in a high accumulation of substandard ships under these flags, badly equipped and often inadequately manned.[17] But what are flags of convenience and are the allegations supported by the facts?

B. Definition and Composition of Flags of Convenience

Various definitions of flags of convenience have been given.[18] Boczek in his celebrated work on the subject defines a flag of convenience:

[17]For a fascinating insight into the problem, see the remarks of Donald A. Kerr Q.C., at an international maritime conference, New Directions in Maritime Law, 1978, Dalhousie Continuing Legal Education Series, No. 18, 90-92.

[18]For the distinction between "flags of convenience", "flags of necessity" and "quasi flags of convenience" see the remarks of Prof. E. Gold, ibid., at 100-102.

> as the flag of any country allowing registration of foreign-owned and foreign controlled vessels under conditions which, for whatever the reasons, are convenient and opportune for the persons who are registering the vessels.[19]

The most comprehensive definition is found in the report of the Rochdale Inquiry. It identified six features common to all flags of convenience, namely:

(i) the country of registry allows ownership and/or control of its merchant vessels by non-citizens;

(ii) access to the registry is easy. A ship may usually be registered at a consul's office abroad. Equally important, transfer from the registry at the owner's option is not restricted;

(iii) taxes on the income from the ships are not levied locally or are low. A registry fee and an annual fee, based on tonnage, are normally the only charges made;

(iv) the country of registry is a small power with no national

[19] Flags of Convenience, Harvard University Press, Cambridge Mass., 1962, 2.

requirement under any foreseeable circumstances for all the shipping registered, but receipts from very small charges on a large tonnage may produce a substantial effect on its national income and balance of payments;

(v) manning of ships by non-nationals is freely permitted; and

(vi) the country of registry has neither the power nor the administrative machinery effectively to impose any government or international regulations; nor has the country the wish or the power to control the companies themselves.[20]

Liberia, Panama, Honduras, Costa Rica, Cyprus and Singapore are the countries most frequently mentioned as offering flags of convenience. However that list is by no means exhaustive.[21] Moreover the composition of the list of countries offering such flags is not fixed.

A recent study by the Secretariat of the United Nations

[20]United Kingdom, Committee of Inquiry on Shipping, Report, H.M.S.O., 1970, at 51.

[21]Various lists of countries offering such flags have been given, see, for example, "Study on Flags of Convenience", OECD, reproduced in 4 J. Mar. L. & Com., 1973, at 232-3, and the Report by the UNCTAD Secretariat, UNCTAD Doc. TB/B/C.4/168 (1977) at paragraph 77.

Conference on Trade and Development (UNCTAD) indicates that 34% of the world tanker fleet and 30% of the world bulk fleet is registered under flags of convenience.[22] Liberia alone accounts for 20% of the world total of registered tonnage. This gives an indication of the enormity of the task facing Liberia in controlling effectively such a large tonnage registered under its flag.

A number of factors have been identified as motivating shipowners to register their ships under flags of convenience. One of the most important is that operating costs are lower in countries offering flags of convenience than in the highly developed industrialized countries of Western Europe and North America.[23] Another incentive is the ease of investment of profits which need not be repatriated but may be used to modernize the fleet. Politics may also play a role. While shipowners may not be able to trade into certain ports under their national flag in times of war, they may be able to do so under a flag of convenience.[24]

[22]Report by the UNCTAD Secretariat, ibid., at paragraphs 22-26.

[23]See the remarks of Donald E. Kerr Q.C., supra Note 17, at 90.

[24]See R. Rich, "Flags of Convenience - Or Necessity" 10 Oceans, 1977, at 23. It has been suggested that the Lebanese flag ceased to be a flag of convenience on passage of a law prohibiting Lebanese flag vessels from trading to Vietnam, supra Note 17, at 94.

The world-wide movement since World War II of enormous quantities of raw materials, notably oil and ore, to the highly industrialized communities in North America and Western Europe have also contributed to the growth of these fleets.[25]

Taxation, too, has undoubtedly played an important role in inducing shipowners to register their ships under flags of convenience, although this may be less important today since a number of traditional maritime states offer tax incentives and significant subsidies to attract tonnage to their flag.

In the last thirty years another factor in the growth of fleets under flags of convenience has been the large scale utilization of such flags, especially those of Panama and Liberia, by American shipping interests to avoid interference by the American labour movement and the application of American labour relation laws.[26]

[25] R.B. Shils & S.L. Millar, "Foreign Flags on U.S. Ships: Convenience or Necessity", Industrial Relations, May 1963, at 133.

[26] For an instructive summary of the cases in the United States involving U.S. labour law, see L.F.E. Goldie, "Rocognition and Dual Nationality - A Problem of Flags of Convenience", Brit. Yb. Int'l.L., 1963, Part III, at 227-254.

C. Safety Record

A great deal can be said and, indeed, has been said about the desirability of the practice of registering ships under flags of convenience. It is beyond the scope of this study to express an opinion on that subject.[27] A number of studies in recent years, however, suggest that in the area of safety and protection of the marine environment all is not well where flags of convenience and some other flags are involved.[28]

These studies have examined the evidence available concerning maritime casualties. On the basis of their examination, the conclusion emerges that the absence or inadequacy of administrative machinery to impose standards of construction, equipment and manning constitutes an important ingredient of the problem.

The first of these studies was conducted by a firm of London Shipping Consultants in 1975. After examination of the

[27] See, for example, the different conclusions respecting the practice drawn by M. Emmanuel du Pontavice, supra Note 15, at 508-12, on the one hand, and Donald E. Kerr Q.C., supra Note 17, at 93-95, on the other hand.

[28] H.P. Drewry (Shipping Consultants) Ltd., London, World Shipping under Flags of Convenience, An Economic Study, No. 37, July 1975 and Prof. Doganis and Dr. Metaxas, The Impact of Flags of Convenience, Transport Studies Group, Research Report 3, Polytechnic of Central London, 1977. See, also, K. Grundy, Flags of Convenience in 1978, Transport Studies Group, Discussion Paper 8, Polytechnic of Central London, 1978.

statistical data, the consultants conclude that:

> Flag of convenience vessels do contribute to the world's accident record in a greater proportion than perhaps can be justified by the size of their fleets.[29]

Further, they make the point that a poor safety record is not confined to fleets under flags of convenience. Some other fleets display a remarkably bad safety record. In connection with the Greek fleet, for example, they note that it:

> has a loss record that is as bad as any of the flag of convenience fleets.[30]

The second study, by two London based economists in 1976, goes much further in its indictment of flags of convenience. After an examination of the statistical data, taken largely from Lloyds Register of Shipping Statistical Tables, this study concludes that:

> It is clear that casualty rates among flags of convenience are consistently

[29] H.P. Drewry Ltd., ibid., at 50.

[30] Ibid., at 51.

> higher than one would expect, given the tonnage under these flags.[31]

Anticipating the suggestion sometimes made that a false impression is created by measuring casualty rates of fleets under flags of convenience in terms of gross tonnage because of the large ships involved, the study specifically examines this aspect and concludes that the safety record of flags of convenience fleets is still very poor in comparison to the world average.[32]

To refine the conclusions even further, the study undertakes an examination of a number of so-called regulated fleets, i.e. fleets that are regularly controlled by national administrations. The conclusion is that the share of world casualties of the regulated fleets has been disproportionately small taking into account the size of their fleets.[33]

It is evident from these two studies that fleets under flags of convenience do have an accident rate that is higher than the world average. However, it also appears that a bad accident

[31] Doganis & Metaxas, supra Note 28, at 81.

[32] Ibid., at 88. See, also, K. Grundy, supra Note 28, at 25. The Cypriot fleet, it is concluded, has the poorest record.

[33] Ibid., at 90.

rate is not confined to flags of convenience. There are other fleets that also have a bad record.[34] But what are the causes for the bad record of these fleets?

D. Causes

As far back as 1958 the International Labour Organization (ILO) gave some indication of the cause when it recommended that countries of registration should establish and operate a ship inspection service within their territories adequate to the requirements of the tonnage on their registers.[35]

Further, the ILO suggested that each state should ensure that all ships flying its flag are regularly inspected within its territory to obtain conformity with regulations issued to meet internationally accepted safety standards.[36]

It may be recalled that the Rochdale Inquiry mentioned as one of the features common to all flags of convenience the absence of administrative machinery to effectively impose any

[34]It is noteworthy that Lloyds has increased insurance premiums in respect of cargoes transported on Greek ships over 15 years of age as of July 1, 1978, see Fairplay International Shipping Weekly, August 17, 1978, at 31.

[35]Flag Transfer in relation to Special Conditions and Safety, International Labour Conference, 41st Session, 1958, Report IV, at 5.

[36]Ibid.

government or international regulations.[37]

This finding is reinforced by the conclusions of the London economists mentioned earlier. While cautioning that a much more detailed study would be necessary to effectively explain the poor safety record of fleets under flags of convenience, they point to the absence of an inspection service to control the adequacy of safety, equipment and manning requirements in terms of numbers and qualifications of the crew as affecting safety. Liberia, it was noted, has established an inspection service but its effectiveness is described as marginal.[38]

This is also implied in the report of the shipping consultants referred to earlier. With respect to the Liberian flag, it is suggested that:

> The Liberian fleet operates with sufficient safety in those sectors where control other than that exercised by the Liberian authorities is applied, that is, in the modern bulk sector of the fleet, where it is under the scrutiny of

[37]See supra at 12, paragraph vi.

[38]Doganis & Metaxas, supra Note 28, at 97. See also K. Grundy supra Note 28, at 37-40 regarding the inadequacies of the Liberian inspection service.

> the underwriters and where it is in the interests of the shipowner to maintain high standards of manning and maintenance. However, in the middle aged/old sections of the fleet, consisting to a large extent of bulk tonnage - thus accounting for the very high GRT loss under Liberian flag - there is a fairly considerable accident liability.[39]

The consultants point out that the acquisition and operation of large bulk tonnage by irresponsible flag authorities is beginning to pose a serious problem to insurance underwriters.[40]

Ratification or accession to international treaties dealing with safety does not necessarily ensure adequate inspection services. Liberia and Panama, for example, are both parties to the 1960 Convention on the Safety of Life at Sea and the 1966 Load Lines Convention.[41] However, by virtue of certain provisions in these instruments, which will be examined later, the flag administrations may relinquish the duty to survey

[39] H.P. Drewry, supra Note 28, at 51.

[40] Ibid.

[41] See Status of Multilateral Conventions, IMCO Doc. Misc. (78)2.E.

and inspect ships under their flags by the appointment of classification societies.

With respect to requirements established in international conventions, the OECD Study on Flags of Convenience makes the following observation:

> These are, however, formal requirements which can only have sense if the administration retains direct or indirect control of their fulfillment. This is sometimes lacking in the case of flag of convenience countries (as well as for certain other flags) and under such circumstances the ships involved may threaten the safety both of other ships and of the countries whose shores they pass.[42]

Summary

1. The growth of large fleets registered under flags of convenience since the end of World War II has been dictated by strong labour unions in the U.S. and the movement of large quantities of raw materials from areas

[42] Supra Note 21, at 250.

of the world producing these materials to the highly industrialized economies of North America and Western Europe.

2. Favourable taxation laws coupled with freedom of action in countries offering flags of convenience and high labour costs at home have favoured registration of shipping, notably U.S. shipping, under these flags.

3. The evidence suggests a poor safety record in the large fleets registered under flags of convenience and some other flags when compared with large regulated fleets.

4. The absence or insufficiency of administrative machinery capable of enforcing adequate standards is an important factor for the poor safety record of these fleets.

Section II - Flag State Jurisdiction

A. Introduction

The absence of administrative machinery in some countries to enforce compliance by ships with adequate standards is in a sense inherent in the practical application of certain principles of international law. These principles relate to the acquisition of nationality by ships and the jurisdiction that states exercise over ships that have acquired their nationality.

This section is devoted to a review of these principles. The acquisition of nationality by a ship is sometimes described in terms of the right by the ship to fly the flag of that state. The jurisdiction which a state exercises over a ship is commonly referred to as flag state jurisdiction.

B. Acquisition of a Flag

Rienow makes the following observation:

> The entire legal system which states have evolved for the regulation of the use of the high seas is predicated on the possession by each vessel of a connection with a State having a recognized maritime flag. This connection has been commonly called nationality.[43]

Colombos points out that every ship must have a national character and be in a position to prove it.[44]

International law, however, does not lay down any rules relating to the manner in which a ship may acquire the right to fly a particular flag. This is left to municipal law. The authority that is often cited for this proposition is the Muscat Dhows case which involved the question of whether France had fettered her discretion by treaty to grant her flag to certain "dhows" of the Sultan of Muscat.[45]

[43] The Test of Nationality of Ships, Columbia University Press, 1934, at 13-14.

[44] International Law of the Sea, Longmans, London, 4th Rev. Ed., 1959, at 250.

[45] Hague Reports, Scott Edition, 1916, at 93-109.

A more recent authority for the proposition is found in the decision of the Supreme Court of the United States in Lauritzen v. Larsen.[46] In the course of delivering the opinion of the Court, Mr. Justice Jackson made the following observation:

> Each state under international law may determine for itself the conditions on which it will grant its nationality to a merchant ship, thereby accepting responsibility for it and acquiring authority over it.[47]

However, while the principle is clear that each state may determine the conditions under which ships may fly its flag, international law does not provide any norms or guidelines as to the minimum requirements for such conditions. This has given rise to considerable debate, especially in the context of the 1958 Geneva Conference on the Law of the Sea. It was argued by some, especially the traditional maritime nations, that rules should be laid down as to what is required as a minimum to recognize jurisdiction by a state over a ship.

[46] 345 U.S. 573 (1953).

[47] Ibid., at 584.

At the 1958 Geneva Conference the debate revolved around the question of whether the notion of "genuine link" should be included in the provisions of the Convention on the High Seas (hereinafter referred to as the "High Seas Convention") one of the four conventions adopted at the Conference.[48] The difficult issue to resolve was the consequences which should flow from the lack of a genuine link between a flag and a ship.

C. Genuine Link

An appropriate starting point of a discussion concerning the notion of genuine link is Article 5 of the High Seas Convention. The first two sentences of paragraph 1 of Article 5 simply reiterate customary international law, namely, that:

> Each state shall fix the condition for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the state whose flag they are entitled to fly.

[48] 450 U.N.T.S. 11.

The 1958 Geneva Conference, however, added an element which, at first sight, seems to qualify significantly the basic proposition that each state is free to fix the conditions of the right of ships to fly its flag. Paragraph 1 of Article 5 concludes as follows:

> There must exist a genuine link between the state and the ship; in particular, the state must effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.

The genuine link concept had featured in the preparatory work of the International Law Commission (ILC) which formulated the draft Articles for the 1958 Law of the Sea Conference.

The first two sentences of Article 29 of the draft Articles are identical to the first two sentences of paragraph 1 of Article 5 of the High Seas Convention. The third sentence of Article 29, however, formulates the notion of the genuine link somewhat differently from the final version of Article 5 of the Convention, by providing that:

> For the purpose of recognition of the nationality of the ship by other states, there must exist a genuine link between the state and the ship.[49]

The ILC, thus, deliberately chose to make recognition of nationality dependent upon the presence of a genuine link. By implication from this test submitted by the ILC the lack of a genuine link in any particular instance would justify refusal to recognize nationality and, further, jurisdiction over the ship by the flag state. However, the 1958 Geneva Conference chose to adopt the compromise language that appears in Article 5, leaving open the question of recognition of nationality where there is no link.[50]

An interesting feature of the debate concerning the inclusion of the notion of genuine link is found in the motives of some of its proponants, notably, within the International Labour Organization (ILO) and in certain traditional maritime states.

[49]See Report, ILC, 8th Sess., 1956, at 24.

[50]The notion of "recognition" was deleted after careful consideration by the conference, see B. Vinar, "The Effect of the Genuine Link Principle of the 1958 Geneva Convention on the National Character of a Ship", 35 N.Y. L. Rev., 1960, 1049 at 1954-6.

In the international labour movement, the concern related to safety conditions prevailing on ships flying flags of convenience. This resulted in a proposal to the 41st session of the International Labour Conference, 1958, of ways and means by which states ought to exercise jurisdiction over ships under their flags.

In that proposal the ILO made a number of significant suggestions. One of these has already been noted, namely, that governments should operate adequate inspection services.[51] Another suggestion was that flag states should adopt regulations designed to ensure that their ships observe internationally accepted safety standards. The ILO also identified the requirement of proper arrangements for the examination of candidates for certificates of competency and the issuance of such certificates.[52]

The traditional maritime states, in favouring the notion of the genuine link, were motivated more by reasons of economic competition. Thus, the Organization for European

[51] Supra at 19.

[52] Supra Note 35.

Economic Cooperation (OEEC), including some of the largest traditional maritime powers, suggested:

> The virtual freedom from taxation of ships sailing under the flags of convenience enables many of the shipowners concerned so to arrange their business enterprises that their profits are not liable to taxation in any country. They are thus able to devote to the expansion and development of their fleets that proportion of their profits which their competitors in other countries have set aside to meet tax requirements.[53]

D. Nottebohm Case

The debates concerning the genuine link at the 1958 Geneva Law of the Sea Conference were preceded, a few years earlier, by the decision of the International Court of Justice in the Nottebohm Case.[54] That case, it was argued, lent support to the inclusion of the notion of genuine link in Article 5 of the High Seas Convention.

[53]See extract from a report on shipping to the OEEC, reproduced by McDougal, Burke and Vlasic, "The Maintenance of Public Order at Sea and Nationality of Ships" 54 AM. J. Int'l L, 1960, at 32.

[54]1955 I.C.J. Rep., 4.

In the account of the background to the ILC's draft Articles, prepared by the United Nations Secretariat, it was suggested that, although,

> This case (the Nottebohm) concerned the nationality of individuals ... the Court considered the matter of nationality in general terms. It is possible, therefore, that some of the principles laid down by the Court may be relevant to the question of the nationality of ships ...55

The application of the principles laid down in the Nottebohm Case concerning the nationality of individuals, to the nationality of ships was attractive but erroneous.

The question at issue in that case was whether Guatemala was obliged to recognize the attribution of nationality to Nottebohm by the Principality of Liechtenstein. The Court concluded, after an extensive review of the facts and state practice, that Guatemala was not bound to recognize the claim to Liechtenstein's nationality made by Nottebohm because it was not possible to say that his ties or links with that country

55United Nations General Assembly, 1956/57, Official Records, Vol. 11, Agenda Item 5, Annexes, at 29.

were sufficiently close for the nationality conferred upon him to be regarded as real and effective.

It was clear from the criteria specified by the Court that it had in mind human beings and was not seeking to lay down a general principle which could, in an appropriate case, be applied to inanimate objects such as ships. Thus the Court found:

> The habitual residence of the individual concerned is an important factor, but there are other factors such as the centre of his interest, his family ties, his participation in public life, attachment shown by him for a given country and inculcated in his children.[56]

None of the criteria mentioned are capable of application to ships. Indeed, it may well be that the use of the word nationality in connection with ships has been the source of some confusion. It is interesting to note, for example, that in the Canada Shipping Act the word nationality is not mentioned. A Canadian ship is defined in terms of one

[56] Supra Note 54, at 22.

that is "registered" in Canada.[57]

In essence the debate at the 1958 Geneva Law of the Sea Conference concerning the inclusion of the concept of genuine link boiled down to the delicate issue of what sanctions should follow if a genuine link is found to be lacking between a ship and her flag.

The advantage of the practice by which nationality is recognized upon the simple act of registration and the carriage of appropriate documents aboard ship, is that ships are hardly ever without nationality. If the genuine link concept were accepted, coupled with non-recognition of jurisdiction where no link was found to exist, the possibility would arise that large numbers of ships registered in countries offering flags of convenience might find themselves without any nationality. The debate pitted the traditional maritime powers against other, newer ones, offering flags of convenience.[58]

[57] R.S.C., 1970, c S-7, section 2. See, also, section 3, Maritime Code Act, 26-27 Elizabeth II, Canada Gazette Part III, Vol. 3, No. 6.

[58] For a summary of the discussion at the 1958 Geneva Law of the Sea Conference, see Boczek, supra Note 19, at 248-262.

In the final analysis the conference, as previously noted, adopted a compromise. The concept of genuine link is mentioned in Article 5 of the High Seas Convention. However no sanctions are included, the convention merely enunciating the broad principle that states must exercise jurisdiction and control in administrative, technical and social matters over ships registered under their flag.

E. IMCO Case

That the inclusion of the requirement of genuine link in Article 5 of the High Seas Convention has no real substance received some confirmation in the advisory opinion that was sought from the International Court of Justice concerning an article in the Convention for the Establishment of the Inter-Governmental Maritime Consultative Organization (hereinafter referred to as the "IMCO Convention").[59]

The facts that gave rise to the request for the opinion related to the refusal of the first Assembly of IMCO to "elect"

[59] 1960 I.C.J. Rep., 150.

Liberia and Panama to membership of the Maritime Safety Committee, one of the principle organs of that organization. Essentially, the question before the Court turned on the meaning to be given to an article of the IMCO Convention (Art. 29(a) as it then was) which specified that of the fourteen members of the Maritime Safety Committee, eight should "be the largest shipowning nations...."

The Court, in giving its opinion, had to decide two questions. Firstly, did the word "elected" used in Article 29(a) have its ordinary meaning implying a discretion in the Assembly to choose the eight largest shipowning nations i.e. does the word "elected" imply a notion of choice. Secondly, what does the expression "largest shipowning nations" mean.

After reviewing the history of the article and noting that the word "elected" had been added at the last moment as a drafting change to replace the word "selected", the Court concluded that the Assembly, on a correct construction of the article, merely had:

> to determine which of its members are the eight largest shipowning nations.[60]

With respect to the second question the treatment of the Court is particularly significant. It was contended on behalf of Liberia and Panama that the sole test to be applied in determining which nations are the "largest shipowning nations" is registered tonnage.[61] According to the figures obtained from Lloyds Register of Shipping which were before the IMCO Assembly, Liberia and Panama ranked, respectively, in third and eighth place amongst IMCO members on the basis of registered tonnage.[62] Those that opposed the election of these two countries relied, inter alia, on the absence of a genuine link between these countries and the fleets registered under their flags.[63]

After examination of a number of international instruments, including the IMCO Convention (Article 60 deals with the entry into force of that Convention on the basis of

[60] Ibid., at 165.

[61] See, for example, the Statement of the Republic of Panama, 1960, I.C.J. Pleadings, Oral Arguments, Documents, at 186-190.

[62] Supra Note 59, 154-5.

[63] See, for example, the Statement by the Netherlands Government, supra Note 61, at 250-52.

ratification by states with a certain amount of registered tonnage), the Court concluded that registered tonnage was the only test to be applied.[64]

The Court tersely disposed of the contention that consideration should be given to the notion of genuine link in Article 5 of the High Seas Convention by stating, in the best judicial tradition, that having reached the conclusion that the:

> determination of the largest shipowning nations depends solely upon the tonnage registered in the countries in question, any further examination of the contention based on genuine link is irrelevant for the purpose of answering the question which has been submitted to the Court for an advisory opinion.[65]

The opinion of the Court was not unanimous (nine votes to five). Two judges, including the President of the Court, chose to append dissenting opinions. It is clear from the opinion of Judge Moreno Quintana that he thought that the inclusion of the notion of a genuine link in Article 5 reflected

[64] Supra Note 59, at 170.

[65] Ibid., at 171.

something more than the mere registration of tonnage under a particular flag, namely, the ownership of the fleet.[66]

The other dissenting opinion appended was expressed by the President of the Court, Helge Klaestad. He concluded that, on a proper interpretation of Article 29(a), the Assembly of IMCO had a discretion which it was entitled to exercise in not electing Liberia and Panama as members of the Maritime Safety Committee.[67]

It must be concluded, then, that Article 5 of the High Seas Convention does little more than codify the customary international law existing before the convention. Registration, evidenced by the carriage aboard ship of certain documents, remains for practical purposes the criterion for the right of a ship to fly a particular flag.[68]

The result is that in some countries the formalities for registration of ships is very simple indeed and may, in some instances, even be accomplished outside the territory of the

[66] Ibid., at 178.

[67] Ibid., at 175.

[68] Article 5, paragraph 2, of the High Seas Convention, supra Note 48, states that "each State shall issue to ships to which it has granted the right to fly its flag documents to that effect".

countries concerned. Moreover, the requirement of ownership by nationals, an ingredient of many registration laws, is given very lenient application in some countries.[69]

F. Flag State Jurisdiction

i High Seas

The degree of control that a state exercises over ships entitled to fly its flag varies in accordance with the proximity of the ship to a foreign coast. Thus, on the high seas a ship, with little exception, falls under the exclusive jurisdiction of her flag administration. On entry into the territorial sea of a foreign state, flag state jurisdiction is diminished and the coastal state acquires some jurisdiction over the ship. In the ports of a foreign state a ship falls under the jursidiction of the port state. But even in port, it will be seen, flag state jurisdiction is not entirely extinguished.

[69]See discussion of the conditions for the grant of nationality to merchant vessels in municipal law contained in the "Report of the UNCTAD Secretariat", supra Note 21, at paragraphs 21-31; see, also, the comments of Donald A. Kerr Q.C., supra Note 17, at 93-95.

As noted above, a ship on the high seas falls under the jurisdiction of the state whose flag she is entitled to fly. Exclusive flag state jurisdiction on the high seas, subject to very limited exceptions, is a corollary of the basic principle of international law commonly referred to as the freedom of the high seas.[70]

The notion of the freedom of the high seas stems from the perception of the oceans as communis juris, that is, that the oceans are beyond the exclusive appropriation of any particular state.[71] The High Seas Convention, which is generally accepted as codification of customary international law, in Article 2, mentions freedom of navigation as one of the four elements comprised in the freedom of the high seas.[72]

Freedom of the high seas, with particular reference to freedom of navigation, is given further recognition in Article 4 of the convention which states that:

> Every state, whether coastal or not, has the right to sail under its flag on the high seas.

[70]The authority often cited for this principle is a passage from Grotius, see De Jure Praedae, Williams trans., 1950, ch. XII, at 231.

[71]See McDougal, Burke and Vlasic, supra Note 53, at 25.

[72]Supra Note 48. The other three freedoms mentioned in that article are freedom of fishing, freedom to lay submarine cables and freedom of overflight.

But the freedom of the high seas does not mean that no law applies on the high seas. Thus, the convention, in Article 6, expresses the following principle:

> Ships shall sail under the flag of one state only and, save in exceptional cases expressly provided for in international treaties or in these articles, shall be subject to its exclusive jurisdiction on the high seas.

The exceptional circumstances in which a ship may be interfered with on the high seas by a foreign state are expressly specified in the convention.[73] They have to do with the detection and suppression of piracy and the slave trade and, consequently, are not pertinent.

ii Territorial Sea

It used to be thought that a ship was a floating extension of the state whose flag she flies.[74] However, the notion of territoriality is no longer acceptable. Although a state may provide a ship with a national character, it remains

[73] Ibid., Articles 13-22.

[74] See the Lotus, P.C.I.J. Vol. 2, Judgement No.9, 1927-28, in which the notion of territoriality of ships was used both in the judgement of the Court and by dissenting judges.

essentially a chattel.[75] Even on the high seas, as noted earlier, a ship is subject to control for certain limited purposes which would be incompatible with the notion of a ship as a territorial extension.[76]

On entry of a ship into the territorial sea of another state a certain degree of control passes to the coastal state. This is not to suggest, however, that upon such entry all flag state jurisdiction is extinguished. Rather a certain degree of flag state jurisdiction continues to exist for limited purposes concurrently with coastal state jurisdiction.

A ship navigating in the territorial sea is governed by the rules of innocent passage.[77] Passage is defined in the 1958 Geneva Convention on the Territorial Sea and Contiguous Zone as:

> navigation through the territorial sea, for the purpose either of traversing that sea without entering internal waters, or of proceeding to internal waters, or of making for the high seas from internal waters.[78]

[75]Colombos, supra Note 44, at 250.

[76]In this connection, see the observations of Lord Finlay in the Lotus, supra Note 74, at 53 where he describes a ship as "a movable chattel".

[77]The principles governing innocent passage were exposed by the International Court of Justice in the Corfu Channel Case, 1949 I.C.J. Rep., 4 and codified in the 1958 Geneva Convention on the Territorial Sea and Contiguous Zone, 516 U.N.T.S. 205.

[78]Ibid., Article 14(2).

Passage by a ship is innocent as long as:

> it is not prejudicial to the peace, good order or security of the coastal state.[79]

Coastal states are specifically required to abstain from hampering ships engaged in innocent passage through their territorial sea. Furthermore, they are subject to specific duties with respect to ships exercising that right. They are required, for example, to give appropriate notice of any danger to navigation within their territorial sea.[80]

While ships navigating in the territorial sea must observe laws and regulations enacted by the coastal state relating to transport and navigation, such laws and regulations must conform with the convention and other rules of international law.[81]

The instances in which a coastal state may exercise criminal jurisdiction over a foreign ship in its territorial sea provide further evidence that coastal state jurisdiction

[79] Ibid., Article 14(4).

[80] Ibid., Article 15.

[81] Ibid., Article 17.

is qualified and the flag state therefore retains some jurisdiction. The instances are defined in Article 19 of the Convention as follows:

> (a) if the consequences of the crime extend to the coastal state; or
>
> (b) if the crime is of a kind to disturb the peace of the country or the good order of the territorial sea; or
>
> (c) if the assistance of the local authorities has been requested by the captain of the ship or by the consul of the country whose flag the ship flies; or
>
> (d) if it is necessary for the suppression of illicit traffic in narcotic drugs.

Article 19(2) specifically confirms the right of a coastal state to take all steps for the purpose of an arrest or investigation on board a foreign ship passing through the territorial sea after leaving internal waters. It follows from the explicit enumeration contained in the convention that crimes that merely affect the internal order of the ship fall to be dealt with under the law of the flag.

The limitations placed on a coastal state extend also to civil jurisdiction. Thus, according to Article 20, a coastal state may not arrest a ship for the purpose of exercising civil jurisdiction in relation to a person on board the ship. Moreover, arrest of the ship in civil proceedings is only permitted in two instances. Firstly, in respect of obligations or liabilities assumed or incurred by a ship in the course or for the purpose of her voyage through waters of a coastal state. Secondly, if the ship is lying in the territorial sea or is passing through the territorial sea after leaving internal waters.

iii Ports

Once a merchant ship enters a foreign port, in principle, she becomes subject to the laws and jurisdiction of the foreign state.[82] But even in this case it has come to be accepted that states restrain themselves in exercising jurisdiction over foreign ships.

[82] Jessup, The Law of Territorial Waters and Maritime Jurisdiction, G.A. Jennings Co., N.Y., 1927, at 144-5.

One can do no better than quote an extract from a U.S. Supreme Court Decision, the Wildenhus Case, 1887, in which both the rationale of the practice and its ambit are exposed:

> From experience...it was found long ago that it would be beneficial to commerce if the local government would abstain from interfering with general regulations of the rights and duties of the officers and crew towards the vessel, or among themselves. And so by comity it came to be generally understood among civilized nations that all matters of discipline, and all things done on board, which affected the vessel, and did not involve the peace or dignity of the country, or the tranquility of the port, should be left by the local government to be dealt with by the authorities of the nation to which the vessel belonged as the laws of that nation, or the interests of its commerce should require.[83]

Thus, it is concluded, that while a state has jurisdiction over foreign ships in its ports, in practice it will limit the exercise of its jurisdiction to cases where

[83] 120 U.S., 1, at 12 (1886).

the peace of the port is endangered. Article 24 of the Territorial Sea Convention does permit a coastal state in its contiguous zone:

> to prevent infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea.

In practice, therefore, a state will limit the exercise of its jurisdiction over foreign ships to maintaining peace within its ports and enforcing customs, fiscal, immigration or sanitary regulations.[84]

Summary

1. International law does not lay down any rules relating to the manner in which a ship may acquire the right to fly the flag of a state.

2. Each state has complete discretion to determine the conditions under which a ship may fly its flag.

3. The inclusion of the notion of genuine link in Article 5 of the High Seas Convention has not fettered that discretion.

[84] Boczek, supra Note 19, at 160.

4. On the high seas, subject to very limited exceptions, a ship falls under the exclusive jurisdiction of the state whose flag she is entitled to fly.

5. In territorial waters, passage of foreign ships is subject to the rules governing innocent passage. Passage of such a ship must be unhampered as long as such passage is innocent.

6. While a coastal state may exercise a certain control over foreign ships in its territorial sea to prevent and punish infringement of its customs, fiscal, immigration or sanitary regulations, in other respects ships remain subject to the jurisdiction of their flag state.

7. In port a foreign ship falls under the jurisdiction of the port state but in practice port states exercise restraint limiting the exercise of their jurisdiction to cases where peace of the port is endangered or to enforce their customs, fiscal, immigration and sanitary laws.

Section III - Maritime Conventions

A. Introduction

To achieve substantial reduction of tanker disasters of the kind discussed earlier, it is essential that oil tankers be properly designed, constructed, manned and equipped. From what has been said in the preceding section respecting flag state jurisdiction, it is clear that the task of adopting and enforcing proper design, construction, manning and equipment standards in respect of ships rests primarily with flag states. Indeed this is reflected in Article 10 of the High Seas Convention[85] which requires each state to take measures for ships under its flag to ensure safety of life including, inter alia:

> the construction, equipment and seaworthiness of ships.

This must be contrasted with the right of a coastal state, by virtue of the Convention on the Territorial Sea and

[85] Supra Note 48.

Contiguous Zone, to adopt laws and regulations relating to transport and navigation which foreign ships navigating in the territorial sea must observe.[86]

Further, a state has the right to take the necessary steps to prevent any breach of the conditions of admission of foreign ships into its internal waters.[87]

A conflict arises between coastal and port states that might be primarily interested in protection of their marine environment and maritime states that are concerned primarily with the unrestricted passage of their ships. Standards set by a coastal state without a substantial fleet might obviously conflict with those of a state with a large fleet interested primarily in maintaining the competitiveness of that fleet and, therefore, inclined to insist only on minimum standards. This conflict may be further aggravated where the flag state has insufficient administrative machinery to properly control its flag ships.

[86] Supra Note 77, Article 17. The extent of this power to set standards is open to some doubt, see A.W. Anderson, supra Note 14, at 1009, where he suggests that power to regulate transport and navigation may not go beyond prescribing minimum basic equipment.

[87] Ibid., Article 16(2).

For practical reasons, in the interests of international commerce, this conflict must be resolved. Over the years, therefore, a number of conventions have been adopted designed to ensure the seaworthiness of ships both from the point of view of safety of life and protection of the marine environment.

It becomes relevant to examine these conventions to see how they have achieved the balance between the interests of coastal states in the proper construction, equipment and manning of ships entering their waters, on the one hand, and the interests of maritime states in uniform standards to facilitate free and unrestricted passage of their ships. It will be seen that these conventions have sought to accommodate flag states which lack administrative machinery to properly enforce standards by allowing them to resort to the use of classification societies.

Basically the international conventions fall into two classes - those concerned with the safety of life at sea and those concerned with protection of the marine environment.

B. Safety of Life at Sea

The impetus for the adoption of the first Convention on the Safety of Life at Sea was perhaps the best known maritime disaster of all time, the sinking of the Titanic in 1912.[88] Since then there have been a succession of Safety of Life Conventions, the one currently in force being the 1960 Convention on the Safety of Life at Sea (hereinafter referred to as the "1960 SOLAS Convention").[89]

In time the 1960 SOLAS Convention will be succeeded by the 1974 Convention on the Safety of Life at Sea (hereinafter referred to as the "1974 SOLAS Convention").[90] To facilitate the discussion of specific provisions, it might be useful to explain the principal difference between the 1960 SOLAS Convention and the 1974 SOLAS Convention. This will make it possible to confine the discussion largely to the 1974 SOLAS Convention even though that convention is not yet in force.

[88] N. Singh, International Conventions of Merchant Shipping, Stevens, London, 1963, Vol.8,14.

[89] 563 U.N.T.S. 27.

[90] Reproduced in 14 I.L.M., 959 (1975).

The primary object in adopting the 1974 SOLAS Convention was to put in place an improved amendment procedure. It had become evident that the cumbersome amendment procedure contained in the 1960 SOLAS Convention was preventing the adoption of amendments to the technical chapters of that convention that had been elaborated over the years by the Maritime Safety Committee of IMCO.[91]

Essentially, therefore, the substantive differences in the technical chapters between the 1960 and the 1974 SOLAS Conventions are relatively small. It was recognized at the 1974 Conference that there was a need for a comprehensive revision of the technical chapter which would be accomplished under the new amendment procedure of the 1974 Convention.[92]

A more detailed examination of the rapid amendment procedures is made later in discussing the functioning of IMCO since they constitute an important element of IMCO's improved

[91]See, for example, the resolutions adopted by the IMCO Assembly to explain, supplement and enlarge upon the technical provision of the 1960 SOLAS Convention mentioned in Resolution 4, adopted by the International Conference for the Safety of Life at Sea, 1974, ibid., at 977.

[92]See Resolution 1 adopted by the International Conference for the Safety of Life at Sea, 1974, ibid., at 971.

capacity to respond quickly to technical changes in design, construction and equipment of ships.[93]

As to the scheme of these conventions, their objective is twofold. Firstly, to achieve uniformity in standards of design, construction and equipment of ships. Secondly, to minimize delay in port due to inspection of ships by port authorities where in fact they conform to these standards.

i 1974 SOLAS Convention

The 1974 SOLAS Convention, as its 1960 predecessor, achieves this dual objective by requiring that a ship engaged in international voyages, be in possession of a series of certificates. These certificates are issued if survey of the ship establishes that she satisfies the applicable technical requirements of the convention set out in the technical chapters annexed to the convention. A cargo ship, which includes an oil tanker, for example, is required to have a cargo ship safety construction certificate, a cargo ship safety equipment certificate, a cargo ship safety radio telegraphy certificate and a cargo ship

[93] *Infra* at 112-117.

safety radio telephony certificate.[94]

Radiotelegraphy and radiotelephony certificates may not be issued for more than twelve months and cargo ship safety equipment certificates may not be issued for more than twenty-four months.[95] Although, the cargo ship safety construction certificate is not subject to any specific time limit, the flag administration is required to institute such subsequent surveys of the ship as it may consider necessary to ensure that her hull, machinery and equipment (other than items for which one of the other certificates described above is required) are in all respects satisfactory.[96]

So much for the actual certification requirements. Crucial to the certification system are the provisions for the carrying out of the inspections and surveys required for the issue of the certificates or their maintenance in good standing. Regulation 6 of Chapter I provides that the inspection and survey of ships shall be effected by officers of the country in which

[94] Supra Note 90, Chapter I, Regulation 12.

[95] Ibid., Regulation 14, paragraph (a).

[96] Ibid., Regulation 10. It should be noted, however, that the form of the safety construction certificate attached to the convention implies a time limit. Also the Canada Shipping Act prescribes 6 years for this certificate see, section 387, Canada Shipping Act, supra Note 57.

the ship is registered. However, the regulation goes on to specify that:

> the Government of each country may entrust the inspection and survey either to surveyors nominated for the purpose or to organizations recognized by it.

This provision must be read together with Article III of the Convention which requires contracting states to provide IMCO with:

> A list of non-governmental agencies which are authorized to act on their behalf in the administration of measures for safety of life at sea for circulation to the Contracting Governments for the information of their officers.

The convenience of this arrangement is all too obvious. A state with a large fleet, and insufficient administrative machinery, is able to discharge its obligations under the convention respecting survey and inspection of its ship by the appointment of classification societies. Indeed

the use of classification societies makes it possible for the necessary surveys and inspection to be conducted without the ship ever entering the waters of her flag state.

There is a requirement that if a state entrusts inspection and survey to nominated surveyors, it shall guarantee the completeness and efficiency of such inspection and survey.[97] This, however may be of little value to other states. Since no settlement of disputes procedure has been included in the convention, the task of holding a flag state to such a guarantee might be so difficult as to render this requirement meaningless.

The widespread use of classification societies has received much critical comment in the public discussion that followed the various tanker incidents. Whether such criticism is justified is difficult to say because of the absence of clear evidence of unsatisfactory service. Nonetheless, some of the facts speak for themselves.

[97] Ibid., Regulation 6.

Classification societies are organized and run by shipowners, largely for insurance purposes. It is obvious, therefore, that they do not have the same authority as a marine administration set up under national law and having more extensive powers than merely to grant or withhold certificates.

It is noteworthy that at the tanker safety and pollution prevention conference in February, 1978, significant amendments to the convention were adopted, including some concerning the use of classification societies. The adoption of these amendments indicates that even amongst experts the widespread use of classification societies is a matter of concern.[98] These amendments will be discussed in greater detail later.[99]

The objective of the convention to minimize delay in foreign ports is achieved by the control provisions laid down in Regulation 19 of Chapter I. In accordance with this provision, duly authorized officers of the port state are

[98]See, in this regard, the comments of Doganis & Metaxas to the effect that because of the competitive nature of classification societies they have been prepared to relax standards and rules, supra Note 28, at 105-9.

[99]Infra at 156-159.

permitted to control a foreign ship in port but, initially, only for the purpose of verifying the possession of a required certificate. Regulation 19 goes on to provide that:

> Such certificate shall be accepted unless there are clear grounds for believing that the condition of the ship or of its equipment does not correspond substantially with the particulars of that certificate.

Where "clear grounds" exist, the officer carrying out the control may take steps to detain the ship until he is satisfied that she can proceed to sea without danger to life. The controlling officer is required to inform the consul of the flag state of any intervention deemed necessary. Since Regulation 19 makes no mention of suspension of the certificate, the conclusion must be that despite evidence of discrepancies, the relevant certificate remains valid. Moreover, this is consistent with the principle that the certificate is issued by or on behalf of the flag administration which alone has the authority to suspend it.

It may be open to speculation how a routine inspection on board a ship directed at ascertaining whether she is in possession of valid certificates could provide "clear grounds" that her condition or equipment does not correspond with the particulars of the certificates. Presumably port authorities must rely on other indications in order to obtain "clear grounds". For example, erratic or unsafe maneuvering, a collision, grounding or standing might furnish such grounds.

It is open to question whether the obvious accommodation of flag states in permitting the extensive use of classification societies and the restriction of port state control is an equitable compromise between the interests of flag states in uniform standards and minimum delay of their ships in foreign ports and the interests of coastal states in the proper construction and equipment of ships navigating in their waters. The system of certification and control established by the convention would be perfectly satisfactory if all fleets fell under the regular control of their flag administration. In practice, however, this is not so.

ii Load Line Convention

Another convention which has to do with safety of life at sea is the International Convention on Load Lines, 1966.[100] That convention is designed to establish uniform principles and rules with respect to the limits to which ships on international voyages may be loaded having regard to the need for safeguarding life and property at sea.

The convention provides for a system of survey and inspection of ships similar to that found in the Safety of Life Conventions. As in the SOLAS conventions, survey and inspection may be entrusted to nominated surveyors or organizations, with the administration merely guaranteeing the completeness and efficiency of the survey, inspection and markings.[101]

Moreover, controls permitted in ports of another contracting state are limited, inspection by authorized officers in the first instance being directed to whether there is on board the ship a valid load line certificate.[102]

[100] 640 U.N.T.S. 133.

[101] Ibid., Article 13.

[102] Ibid., Article 21.

Two other subjects touching on safety must be mentioned in discussing the SOLAS conventions. The first relates to manning of ships and training of crews and the second to traffic regulation of ships on the high seas. Both subjects provide further illustrations of the principle of the freedom of the high seas and its corollary of flag state jurisdiction.

iii Manning and Training

It may be recalled from the first section that the absence of administrative machinery to control the adequacy of manning in terms of numbers and qualifications of the crew was identified as a factor for the poor safety record of some fleets.[103] Also, human error has been identified as one of the principal causes of maritime accidents.

Article 10 of the High Seas Convention does impose an obligation on every state to take measures for ships under its flag to ensure safety of life at sea with regard to:

[103] Supra at 16.

> the manning of ships and labour conditions for crews taking into account the applicable labour instruments.[104]

Already in 1958, therefore, there was clear recognition of the link between safety and proper manning.

The International Labour Organization (ILO) has adopted a number of conventions that have implications for training and manning, notably, the Convention Concerning the Minimum Requirements of Professional Capacity for Masters and Officers on Board Merchant Ships, the Convention concerning the Certification of Able Seamen and the Convention concerning Minimum Standards in Merchant Ships.[105]

Thus, for example, Article 4 of the convention relating to masters and officers requires that no certificate of competency be granted unless the candidate for such a certificate fulfills certain minimum requirements as to age, professional experience and examinations. However, these minimum requirements are left

[104] Supra Note 48, Article 10(b).

[105] Respectively, I.L.O. Convention 53, 40 U.N.T.S. 153, I.L.O. Convention 74, 94 U.N.T.S. 11, I.L.O. Convention 147, reproduced in 15 I.L.M. 1288 (1976).

entirely to national law to prescribe.

A similar approach is adopted in the convention concerning able seamen.[106] The convention relating to minimum standards, while not specifically directed at competency and certification does require, in Article 2, that a member state exercise effective jurisdiction or control over its ships which are registered in its territory in respect of:

> safety standards, including standards of competency, hours of work and manning, prescribed by national laws or regulations.

Further, a member state is required to ensure that:

> seafarers employed on ships registered in its territory are properly qualified or trained for the duties for which they are engaged....

While the above language represents a sincere concern of the ILO to ensure that proper conditions concerning training are maintained on board merchant ships, the language suffers from the same lack of sanctions as Article 5 of the High Seas Convention

[106] *Ibid.*, Article 2.

respecting the "genuine link".

The vital subject of manning and training is dealt with in one brief provision in the 1974 SOLAS Convention (and its predecessors). Regulation 13 of Chapter V states:

> 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 shall be sufficiently and efficiently manned.

The matter is, therefore, left entirely to the flag state to regulate. No attempt is made in these conventions, whose prime object after all is safety of life at sea, to set any guidelines as to what would be an acceptable minimum in these two important areas.

The somewhat general approach in the ILO conventions and the brief treatment of the subject in the SOLAS conventions is explained by a number of factors. Firstly, because manning and training concern the internal management of ships, it is

consistent with the general principle of flag state jurisdiction to leave this subject to national legislation. Secondly, in a free enterprise system, the subject of manning and training falls within the right of the shipowner to manage his own affairs, i.e. to be agreed upon by traditional management/labour negotiations. Lastly, the complexity of the subject has not, until recently, been conducive to a more exhaustive treatment by IMCO.[107]

Nonetheless, the brevity of Regulation 13 and the general language of the ILO Conventions contrasts starkly with Annex I of the International Convention on Civil Aviation (commonly referred to as the "Chicago Convention")[108] which is devoted to personnel licensing in international aviation. An examination of that annex reveals elaborate requirements for training and qualification of pilots, flight crew members and other personnel. With respect to pilots, for example, there are detailed provisions concerning the knowledge they must possess, their experience (the numbers of hours of flight time), skill and medical fitness.

[107] It took the IMCO Subcommittee on Standards of Training and Watchkeeping seven years to develop a convention on the subject of training, certification and watchkeeping, see infra at 161-173.

[108] 15 U.N.T.S. 295.

It is recognized that the comparison between aviation and shipping in this area cannot be pressed too far, nor would it fall within the scope of this study to make detailed comment on points of similarity or divergence. This must be left to the technical experts. However, even to a non-technical observer it is obvious that there are points of similarity between the pilot of an aircraft and the master of a super tanker equipped with highly sophisticated navigational equipment and capable of posing enormous danger to life and the marine environment.

Whereas Regulation 13 and the ILO conventions may be sufficient if world shipping was composed entirely of fleets falling under the supervision of experienced marine administrations setting the necessary standards for training of crews and manning of ships, in practice this is not the case.

iv Traffic Regulation

Traffic regulation on the high seas is another matter that significantly affects safety and protection of the marine

environment.[109] However, because the high seas do not fall under any national jurisdiction adherence by ships to traffic schemes on the high seas, for example in the English Channel, is voluntary, except in those instances where adherence has been made mandatory under legislation of the flag state.

At the outset a basic distinction must be drawn between traffic regulation, on the one hand, and what may loosely be described as rules of the road, on the other hand. The former has to do with the overall organization of traffic. The rules of the road, on the other hand, are merely designed to govern the manner in which ships should signal their presence to and approach each other.

With respect to traffic regulation, the 1960 SOLAS Convention has one provision. It urges the practice of following recognized routes across the Atlantic and in converging areas on both sides of the Atlantic.[110] However, the selection of the routes and the delineation of what constitutes converging

[109]The importance of the subject is illustrated by two recent collisions - between the Greek tanker, Elini V and the French carrier, Roseline, off the popular British coastal resort of Yarmouth, reported in the Globe & Mail, May 8, 1978, at 8, and between two Liberian sister tankers, Venoil and Vinpet off the South African coast, December 16, 1977, reported in Globe & Mail, December 17, 1977, at 13. The most recent collision to be reported between tankers is that between the Greek owned Atlantic Empress and the Aegean Captain see Ottawa Journal, July 21, 1979 at 1.

[110]Supra Note 89, Chapter V, Regulation 8.

areas is left entirely to the shipping companies.

Concerning what is loosely described as rules of the road, attached to the Final Act of the 1960 Conference on the Safety of Life at Sea are the Regulations for Preventing Collision at Sea.[111] These regulations deal with such matters as the identification of ships by prescribed lights, the equipping of ships with specified signals, as well as certain basic steering and sailing rules governing the conduct of approaching ships.

In the 1974 SOLAS Convention the routing provision, mentioned above, has been extensively revised. The recommended practice of following recognized routes has been generalized by deleting the reference to the Atlantic. Such a practice is specifically recognized as having contributed to the safety of navigation and is recommended for all ships.[112]

Although the selection of actual routes and the delineation of what constitutes converging areas is the responsibility of national governments, IMCO has been identified as the body for

[111] Ibid., Annex B.

[112] Supra Note 90, Chapter V, Regulation 8(a).

the establishment of routes at an international level. Furthermore, contracting governments are required to use their influence to secure the use of adopted routes and to do everything in their power to ensure adherence to the measures adopted by IMCO in connexion with routing of ships.[113]

At a diplomatic conference in London in 1972, under the auspices of IMCO, the Convention on the International Regulations for Preventing Collisions at Sea was adopted.[114] While that convention represents essentially an updating of the collision regulations attached to the Final Act of the 1960 SOLAS Conference, there is one traffic regulation provision which merits particular mention.

Rule 10 of this convention lays down the rules that apply where a ship elects to use a traffic separation scheme adopted by IMCO. There was an attempt to make compulsory the use of such traffic separation schemes.[115] However, the attempt

[113] Ibid., Regulations 8(b) and 8(d).

[114] B.T.S. 1977/77

[115] See International Conference on Collision at Sea, 1972, CR/CONF./WP16 and Rev.1, CR/CONF./C.2/WP.13, see also, in this connection, the Canadian declaration accompanying Canadian accession to the convention, IMCO Doc. COLREG/CIRC.14, March 17, 1975.

failed and their use remains voluntary.[116] It is for the master to decide, on approaching a traffic separation scheme, whether or not to use it.[117]

Obviously ships navigating in conflict with a routing system expose themselves and others to severe and unnecessary hazards. However, in spite of the dangers, Rule 10, paragraph 1, merely contains the cryptic instruction that:

> A vessel not using a traffic separation scheme shall avoid it by as wide a margin as is practicable.

C. Protection of the Marine Environment

The problem of pollution of the marine environment by ships is not a new one. It is not something that has arisen in the wake of tanker incidents over the last decade or so. Already in 1926 an international conference, convened at the instance of the U.S. government, discussed the question of oil pollution from ships.

[116]The attempt to make steering and sailing rules, including Rule 10, compulsory may be renewed as a result of proposals by France to IMCO to make any infringements of the Collision Regulations an offence, see Report of the Legal Committee IMCO Doc. Leg.XXXVIII/5, paragraphs 102-110 and Proposal by the French Government, IMCO Doc. Leg.XL/4. It should be noted also that Canada has power under Part XX of the Canada Shipping Act to establish compulsory traffic routes in waters to which it applies which would include the extended fishing zones off the east and west coast of Canada, see supra Note 5, paragraph 730(1) (o).

[117]See Ships Routing, IMCO publication, 3rd Ed., Introduction.

It was not until 1954, however, at an international conference, convened this time by the British government, that a convention dealing with oil pollution was adopted which achieved international acceptance.[118] Since then a number of other conventions have been adopted, notably, the 1973 Convention for the Prevention of Pollution from Ships, which, on entry into force, will replace the1954 Convention.[119]

i 1954 Oil Pollution Convention

Although the 1954 Convention for the Prevention of Pollution by Oil (hereinafter referred to as the "1954 Oil Pollution Convention") has to do principally with the prevention of operational discharges of oil from ships, it is interesting for the purposes of this study because of its enforcement provisions. Its enforcement provisions are based primarily on the principle of flag state jurisdiction. The convention, which has been in force for some twenty years, thus provides evidence

[118]The International Convention for the Pollution of the Sea by Oil, 1954, 327 U.N.T.S. 3, amended in 1962, 640 U.N.T.S. 332, and 1969, reproduced in 9 I.L.M. at 1 (1970). For a description of the convention and its amendments, see T. Mensah "International Environmental Law: International Conventions concerning Oil Pollution at Sea" 8 Case W. Res. J. Int'l L. 110 at 113-6.

[119]Reproduced in 12 I.L.M., at 1319 (1973).

period of time in controlling ships and activities carried out on board ship on the high seas.

Basically, the Convention prohibits or controls operational discharges of "persistent oil" from certain classes of ships.[120] Thus, tankers of 150 tons and over are prohibited from discharging oil from cargo tanks within 50 nautical miles from the nearest land. Ships of 500 tons and over are prohibited from discharging oil or oily mixture except when discharge is made as far as practicable from land. In both instances when discharge is permitted the rate of discharge may not exceed a certain quantity.[121]

For the purposes of detecting violations, all ships to which the Convention applies that use oil as fuel and tankers, are required to maintain an oil record book. Entries must be recorded when any of a variety of operations is carried out on board the ship to do with the cargo of oil, cleaning of tanks or the discharging of bilge water containing oil which has accumulated in machinery spaces.[122]

[120] Oil is defined in the convention to mean "crude oil, fuel oil, heavy diesel oil and lubricating oil" usually referred to collectively as persistent oil, see supra Note 118, Article I.

[121] Ibid., Article II as read with Article III. The convention also applies to ships engaged in whaling and ships navigating the Great Lakes and their connecting and tributory waters as far as Montreal, see Article II.

[122] Ibid., Article IX.

The prosecution of ships that have violated the Convention is primarily the responsibility of the flag state. Any contracting government may report violations to the flag state which is bound to investigate them and, if the evidence warrants it, cause proceedings to be taken.[123]

The flag state is bound to prescribe penalties that shall:

> be adequate in severity to discourage any such unlawful discharge and shall not be less than the penalties which may be imposed under the law of that territory in respect of the same infringements within the territorial sea.[124]

A coastal state does retain the right to prosecute violations committed in waters under its jurisdiction. This follows from a provision in the convention to the effect that:

> Nothing in the present Convention shall be construed as derogating from the powers of any Contracting Government to take measures within its jurisdiction in respect of any matter to which the Convention relates....[125]

[123] Ibid., Article X.

[124] Ibid., Article VI(2).

[125] Ibid., Article XI.

It follows that the flag state has exclusive jurisdiction to prosecute its ships in respect of violations on the high seas.

The reliance on flag state jurisdiction for the prosecution of violations on the high seas presents a number of difficulties. Firstly, it prevents any uniformity of penalties. Each flag state is free to set whatever penalties it considers adequate to discourage such violations. Secondly, oil tankers registered under flags of convenience will rarely, if ever, be in the territorial sea of the flag state where prosecutions for alleged violations would normally be initiated.

Finally, there is the technical problem of obtaining the necessary evidence to launch a successful prosecution. Such evidence is often difficult to obtain in respect of violations on the high seas, especially since the convention does not apply to certain discharges. For example, it does not apply to discharges for the purposes of securing the safety of the ship, preve[illegible] age to the ship or cargo or saving life nor to

unavoidable leakages.[126] The master therefore has a number of ways to explain away discharges revealed by the oil record book.

Under these circumstances it is not surprising that the enforcement procedures under the Convention have been less than satisfactory. To render them more effective, an amendment was adopted in 1962 which obliges contracting states to report to IMCO the penalties actually imposed for each violation.[127] Furthermore, by resolution of the conference that adopted the amendment, IMCO is required to provide reports compiled from information furnished by contracting states of the

> number of successful and unsuccessful prosecutions for contraventions of the convention.128

An examination of the reports is revealing. Apart from documenting the difficulties in obtaining sufficient evidence (aerial photographs, extracts of the oil record book) the reports contain many instances where no information was received of any follow-up action by the flag state.[129]

[126] Ibid., Article IV.

[127] Supra Note 118, Article VI(3).

[128] For reports by states, see, for example, IMCO Docs. MEPC/CIRC.17 May 30, 1975, CIRC.28, December 19, 1975, and CIRC.30, February 25, 1976.

[129] An examination of MEPC/CIRC.17, May 30, 1975, ibid., which contains a summary of alleged violations covering the period from 1968-75 reveals that of 164 cases reported, 14 resulted in penalties, in 47 there was no response from the flag state and the remaining 103 were not pursued for insufficiency of evidence.

In this connexion it is noteworthy that it was revealed to the West Coast Oil Ports Inquiry, 1977, that over a ten year period from 1967 to 1977 Canada reported eighty suspected violations of the Convention, of which only seventeen resulted in penalties while in thirty-nine cases no response whatsoever was received.[130] By comparison, in prosecutions under the Oil Pollution Prevention Regulations pursuant to the Canada Shipping Act it was stated to the Inquiry that the conviction rate on the west coast has been greater than 90%.[131]

The conclusion drawn by the Commissioner of the above mentioned Inquiry is as follows:

> This comparison (the Canadian international and domestic experience described above) provides graphic evidence of one of the critical weaknesses of international regulation of the marine transportation of oil: lack of enforcement by the flag state.[132]

[130] West Coast Oil Ports Inquiry, Proceedings at Inquiry, Vol.5, at 701-2.

[131] Ibid., Vol.10, at 1503.

[132] West Coast Oil Ports Inquiry, Statement of Proceedings, at 130, the passage in brackets has been added by the writer for greater clarity. See also the comments of L.F.E. Goldie in Who Protects the Ocean?, West Publishing Co., St. Paul, Minn., 1975 at 81.

ii 1973 Pollution Convention

As noted earlier, the 1954 Oil Pollution Convention will eventually be superseded by the 1973 Convention for the Prevention of Pollution from Ships (hereinafter referred to as the "1973 MARPOL Convention").[133] In contrast to the 1954 Convention, the 1973 MARPOL Convention represents a much more comprehensive approach to the protection of the marine environment from pollution by ships.

As far back as 1969, the IMCO Assembly had decided, in principle, on the convening of a conference for the purpose of:

> The achievement by 1975 if possible, but certainly by the end of the decade, the complete elimination of the willful and intentional pollution of the seas by oil and noxious substances other than oil, and the minimization of accidental spills.[134]

In March 1971 the IMCO Maritime Safety Committee adopted a draft resolution recommending to the Assembly that the conference should have as its main objective:

[133] Supra Note 119.

[134] Assembly Resolution, Marine Pollution, IMCO Doc. A/Res.176(VI) at 4.

Revision of the International Convention for the Prevention of Pollution of the Sea by Oil (1954) to provide for the complete elimination of the willful and intentional pollution of the seas by oil.[135]

Consciousness of the need to protect the marine environment was further heightened by the United Nations Conference on the Human Environment held in Stockholm in 1972. In the following year the Conference on Marine Pollution finally took place in London resulting in the adoption of the 1973 MARPOL Convention.

Since the objective of the convention is to achieve complete elimination of pollution, it deals not only with oil (Annex I) but also with noxious liquid substances (Annex II), harmful substances (Annex III), sewage (Annex IV) and garbage (Annex V).

However, by Article 14, acceptance of Annexes III, IV, and V is optional. In the initial period, therefore, it was

[135]Maritime Safety Committee, Draft Resolution, IMCO Doc. MSC.XXIII/19, Annex X (1971).

anticipated that the convention would address those problems perceived at the time of the London Conference to be most critical, namely, pollution of the seas by oil (Annex I) and noxious liquid substances (Annex II). The regulation of pollution of the seas by harmful substances, sewage and garbage would be left to a later period.[136]

Annex I proceeds in much the same manner as the 1954 Oil Pollution Convention except that it applies to a wider range of ships. All oil tankers are prohibited from discharging oil from cargo tanks within 50 nautical miles from land. Ships of 400 tons and over and all oil tankers are prohibited from discharging oil from machinery space bilges within 12 nautical miles from the nearest land. Outside these areas discharges from a ship governed by the Convention are permitted only at a prescribed rate and while the ship is en route.[137]

In addition to a more detailed oil record book,[138] the convention requires that any ship of 400 tons gross tonnage

[136]Even the implementation of Annex II has proved to be an insurmountable hurdle, see discussion infra at 153.

[137]Supra Note 119, Annex I, Regulation 9, paragraph 1. It should be noted, however, that in contrast to the 1954 Oil Pollution Convention, Annex I applies also to "non-persistent oil", see definition of oil in Regulation 1.

[138]Ibid., Regulation 20.

be fitted with oil discharge monitoring and control systems in order to facilitate detection of violations.[139] Such ships are also required to be fitted with slop tanks.[140] The requirements for oil discharge monitoring and control systems adopted at the 1973 Conference were made possible by advance in technology since 1954.

But unlike the 1954 Convention, the 1973 MARPOL Convention does more than control operational discharges. It includes a number of constructional requirements, for example, tankers over 70,000 tons that are contracted for, built or delivered after certain dates must be equipped with segregated ballast tanks.[141] This requirement, and a number of other ones,[142] are clearly intended to reduce oil pollution from accidental spills.[143]

[139] Ibid., Regulation 16.

[140] Ibid., Regulation 17.

[141] Ibid., Regulation 13. E.V.C. Greenberg, in criticizing the achievements of the convention, points out that at the 1973 conference U.S. authorities thought that segregated ballast was feasible on tankers as small as 20,000 dwt, see "IMCO:An Environmentalist's Perspective" 8 Case W. Res. J. Int'lL, 1976 131 at 140.

[142] See ibid., Regulation 23, hypothetical outflow of oil in case of side and bottom damage, Regulation 24, limitation and size of cargo tanks and Regulation 25, subdivision and stability criteria for new oil tankers.

[143] Some limited construction requirements aimed at reducing accidental oil pollution have been adopted to the 1954 Oil Pollution Convention, see Assembly Resolution, Amendments to the International Convention for Prevention of Pollution of the Sea by Oil, 1954, concerning Tank Arrangements and Limitation of Tank Size, October 15, 1971, IMCO Doc. A.246(VII).

Since the convention has construction and equipment requirements it includes survey and certification provision to ensure that ships to which the convention applies conform with those requirements. As in the SOLAS conventions, this is achieved by a system of periodic surveys of structure and equipment followed by the issue of an international oil pollution prevention certificate.[144]

The conduct of surveys and the issue of certificates are primarily the responsibility of the flag state. As in the SOLAS conventions, for the convenience mainly of those states that have insufficient administrative machinery, states may entrust surveys and certification to persons or organizations nominated by them (classification societies). In such a case a state must merely guarantee the completeness of the surveys and assume full responsibility for the certificate.[145]

Similarly, in the area of control, the system of the SOLAS conventions has been adopted with some modifications.

[144] Supra Note 119, Regulations 4 and 5.

[145] Ibid., Regulation 4(3).

Thus, ships required to hold certificates under the Convention are subject to inspection in port or at off-shore facilities, but any such inspection:

> shall be limited to verifying that there is on board a valid certificate, unless there are clear grounds for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of that certificate.[146]

Once again the criterion of "clear grounds" has been used to justify detention of the ship:

> until it can proceed to sea without presenting an unreasonable threat or harm to the marine environment.[147]

However, to prevent needless delay, the Convention has added a feature, not found in the SOLAS conventions, namely, it enjoins parties to make all possible effort to avoid undue detention and delay and reinforces that injunction by providing that:

> When a ship is unduly detained or delayed .... it shall be entitled to compensation for any loss or damage suffered.[148]

[146] Ibid., Article 5(2). It has been observed that in allowing states to control foreign ships at off-shore terminals, which can be situated on the high seas, the principle of flag state jurisdiction has been circumvented (écarté) see R-J. Dupuy, "L'inspection internationales des navires", Inspection Internationales, Quinze Etudes de la Pratique des Etats et des Organisations Internationales réunies et introduites par G. Fisher et D. Vignes, Bruxelles, 1976, 249 at 260.

[147] Supra Note 119, Article 5(2).

[148] Ibid., Article 7.

With respect to prosecutions of violations of the convention, a contracting state under whose jurisdiction a violation has occurred has the choice either to:

> (a) cause proceedings to be taken in accordance with its law; or
>
> (b) furnish to the Administration of the ship such information and evidence as may be in its possession that a violation has occurred.[149]

The term "jurisdiction" must be construed in accordance with international law in force at the time of application or interpretation of the convention.[150]

At the time of the 1973 Conference on Marine Pollution preparations for the third United Nations Conference on the Law of the Sea were already underway. Indeed the first session of that conference was held in Caracas the following year. Accordingly, the 1973 MARPOL Convention specifies that:

> Nothing in the present Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference

[149] Ibid., Article 4(2).

[150] Ibid., Article 9(3).

> on the Law of the Sea convened pursuant to Resolution 2750 C (XXV) of the General Assembly of the United Nations nor the present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction.[151]

However, the 1973 MARPOL Convention does not have the equivalent of Article XI of the 1954 Oil Pollution Convention whereby it is expressly provided that states have the discretion to take whatever measures they deem fit within their jurisdiction.

This may be due to the fact that the convention, in contrast to the 1954 Oil Pollution Convention, contains construction and equipment requirements and is not restricted merely to prohibiting or controlling operational discharges. It may be argued, therefore, that in matters governed by the convention, a contracting party is bound by the standards set by the convention and is not entitled to apply standards in respect of ships of other contracting parties that enter its waters that exceed those standards.[152]

[151] Ibid., Article 9(2).

[152] The matter is not free from doubt. Canada, for example, made a declaration to the 1973 Conference to the effect that in the absence of any provision restricting the power of contracting states to take measures in respect of matters to which the Convention relates, she was free to take all measures within her jurisdiction for the protection of her coasts and the adjacent marine environment from pollution from ships, see International Conference on Marine Pollution, Statement of Canada in relation to Article 9, MP/CONF/WP.34.

With respect to penalties, the 1973 Convention, in the interests of achieving some uniformity, provides that flag states must establish penalties under their laws that are:

> adequate in severity to discourage violations of the present Convention and shall be equally severe irrespective of where the violations occur.[153]

The 1973 MARPOL Convention is clearly an improvement over the 1954 Oil Pollution Convention. It is more comprehensive in its application to classes of ships (all oil tankers, as opposed to merely tankers over a certain size). Advances in technology had made possible the inclusion of equipment requirements that will render detection of violation of its discharge standards more effective. Further, significant construction specifications have been included to reduce pollution in case of accidents.

However, the primary task of enforcing these construction and equipment standards, through a system of survey and

[153] Supra Note 119, Article 4(4).

certification, remains with the flag state. Unfortunately, the Convention, adopted some six years ago, remains inoperative for lack of the requisite acceptance by states.[154]

iii Intervention Convention

At the 1969 International Legal Conference on Marine Pollution Damage, held in the wake of the Torrey Canyon disaster, one of the two conventions adopted was the Convention relating to Intervention on the High Seas in cases of Oil Pollution Casualties (hereinafter referred to as the "Intervention Convention").[155]

Other conventions discussed so far deal with pollution by ships on a preventative basis. They require ships to be built and equipped in accordance with certain standards and to limit their operational discharges. The Intervention Convention, on the other hand, deals with accidents, actual or threatened, and the measures that coastal states may take to prevent or limit pollution damage that may result therefrom.[156]

[154]As of April 30, 1979, the Convention has only been ratified by Jordan, Kenya, Uruguay and Yemen, Note by Secretariat IMCO Doc. MEPC XI/2.

[155]B.T.S. 1975/77. The other convention adopted was the Convention on Civil Liability of Shipowners for Oil Pollution Damage, B.T.S. 1975/106. In 1973 the Intervention Convention was extended to the threat of pollution from other substances, see 13 I.L.M.605(1974).

[156]The U.S.A., which is a party to this convention, invoked it to justify their action against the Liberian tanker, the Argo Merchant, see U.S. Senate Commerce Committee, "Recent Tanker Accidents", 95th Congress, 1st Session, at 93 (1977).

Thus, although this convention addresses essentially a different problem from other conventions discussed so far, it is nonetheless worthy of note because of its implications for the principle of flag state jurisdiction. Some modification of that principle was considered necessary because the Torrey Canyon incident had demonstrated the need for a coastal state to take measures under certain circumstances against a foreign flag ship on the high seas threatening its coasts with oil pollution.

Although maritime states were obliged to recognize this need, their concern from the outset was to permit only the minimum of interference with traditional principles which, as previously noted, accord jurisdiction over a ship on the high seas to its flag state.

That there should be minimum interference with flag state jurisdiction is reflected in Article III which lays down the procedure where a coastal state is contemplating measures against a foreign ship on the high seas off its coasts. Thus

the coastal state is required to consult, inter alia, with the flag state before taking the measures (paragraph (a)) and only in cases of "extreme urgency" may the coastal state take measures without prior notification or consultation (paragraph (d)).

In Article V the Convention emphasizes the principle of proportionality by requiring that measures taken by a coastal state must be in proportion to the damage, actual or threatened, and cease as soon as their objective has been achieved. The requirement of proportionality is complemented by the obligation, in Article VI, to pay compensation where measures are found to have been unreasonable.

But even if maritime states have had to accept some interference with the principle of exclusive flag state jurisdiction, the convention makes it plain, in its preamble, that it should not be construed as interfering with freedom of the high seas. Such a reaffirmation of that freedom was obviously considered necessary to underline the exceptional nature of the right of intervention against foreign flag vessels on the high seas.

Summary

Safety of Life at Sea

1. The SOLAS Conventions establish construction and equipment standards of ships for the safety of life at sea.

2. The task of obtaining compliance with standards rests primarily with the flag administration and is achieved by a system of survey and certification.

3. Flag states may fulfill their obligations respecting survey and certification of their ships by the nomination of classification societies to act on their behalf.

4. Control of ships by other contracting parties is limited to "in port" inspection for the purpose of verifying the presence on board of a valid certificate attesting compliance with the convention except where there are "clear grounds" for believing that there is substantial non-compliance.

5. A similar system is established under the Load Line Convention.

6. The conventions do not provide for invalidation of certificates where discrepancies are found to exist, this being left entirely to the flag state which must be informed of any intervention respecting its ships in a foreign port.

7. Port states are restricted, in the measures they may take, to the detention of the ship until she can proceed to sea in safety.

8. States under SOLAS Conventions are required to ensure that their flag ships are sufficiently and efficiently manned. No guidelines are provided as to what might constitute a minimum standard.

9. Under ILO conventions states are required to exercise "effective control" for safety ensuring proper examinations for and issue of certificates of competency.

10. On the high seas, traffic is regulated by adherence to traffic schemes on a voluntary basis except where adherence has been made mandatory under national legislation. Contracting governments must use their influence to secure the appropriate use of routes adopted for the purpose of separation of traffic by their ships.

11. The Convention on International Regulations for Preventing Collisions at Sea, 1972, does provide for the adoption by IMCO of traffic separation schemes but their use is not compulsory.

Protection of the Marine Environment

12. The 1954 Oil Pollution Convention deals principally with the prevention of operational oil discharge.

13. In areas beyond the territorial sea, the convention confirms the traditional principle of flag state jurisdiction with respect of any violation.

14. Reliance on flag state enforcement under the convention has not been satisfactory.

15. The 1973 MARPOL Convention, like the 1954 Oil Pollution Convention sets discharge standards with respect to oil, but applies to a wider range of ships. It includes equipment requirements designed to facilitate detection.

16. The convention also deals with protection of the marine environment from accidental discharges on a preventive basis by setting construction standards. It provides for enforcement of its construction and equipment requirements by a system of survey and certification.

17. Like the SOLAS conventions, the 1973 MARPOL Convention permits flag states to appoint classification societies authorized to act on their behalf in matters of survey and certification.

18. While in port or at an off-shore facility, ships required to hold a certificate are subject to control, limited to

verification that there is on board a valid certificate unless there are clear grounds that the condition of the ship or its equipment do not correspond substantially to the particulars of the certificate.

19. In the event of discrepancies, a ship may be detained until she can proceed to sea without presenting an unreasonable threat of harm to the marine environment.

20. A ship unduly detained shall be entitled to compensation.

21. Proceedings in respect of violations under the convention may be brought either by the flag state or, if the violation occurred within its "jurisdiction", by the coastal state. The term "jurisdiction" must be construed in the light of international law in force at the time.

22. The 1969 Intervention Convention carefully circumscribes the right of a coastal state to intervene against ships on the high seas that threaten its coastal interests with oil pollution.

23. The flag state must be consulted with respect to proposed measures and only in cases of "extreme urgency" may measures be taken without prior notification or consultation.

24. The Convention emphasizes the principle of proportionality and imposes the obligation to pay compensation where measures adopted are found to have been unreasonable.

It follows from the analysis of the conventions made in this section that they have reinforced the principle of flag state jurisdiction. This is particularly evident in the obligation of port states to accept convention certificates with respect to compliance with construction and equipment standards.

Although the 1969 Intervention Convention has recognized the right of intervention, it has been careful to emphasize that it does not modify the principle of the freedom of the high seas. This serves to underline the exceptional nature of the power to intervene against a foreign flag ship on the high seas.

Section IV - The Intergovernmental Maritime Consultative Organization (IMCO)

A. Introduction

In the wake of the many tanker incidents over the past decade or so, IMCO, the specialist organization within the United Nations system concerned with the regulation of the technical aspects of maritime transport, has been criticized for failing to adopt appropriate measures in time to avoid these incidents. It has been suggested that the Organization is without any teeth, a mere instrument of the maritime states.

Whatever IMCO's position in the past vis à vis the maritime states, over the years it has acquired widespread international acceptance. However, an examination of the method by which IMCO does its work of international regulation shows that it is, to say the least, severely handicapped in this work.[157]

[157] IMCO at present has 110 full members and one associated member, see IMCO Press Release, Feb. 6, 1979. As to allegations of IMCO's ineffectiveness because of the domination by the maritime states, see the comments of E.V.C. Greenberg, supra Note 141, at 134.

IMCO, unlike a number of other international organizations, must accomplish its regulatory work largely through the adoption or amendment of conventions. This usually involves the cumbersome procedure of convening diplomatic conferences or following the lengthy amendment procedures set out in the conventions. IMCO can merely formulate regulations and recommend them for adoption to member states. It has no power itself to adopt them.

It is necessary to examine the aims and structure of IMCO to understand this inability to act on its own initiative. It is also interesting to compare IMCO with ICAO, especially the contrasting method of adopting regulations.

B. IMCO Constitution

The constitution of IMCO is found in the Convention on the Intergovernmental Maritime Consultative Organization[158] adopted at an international conference in Geneva in 1948. The Convention entered into force on March 17, 1958. The fact that

[158] 289 U.N.T.S. 3, as amended in 1964, 607 U.N.T.S. 276, and 1965, 649 U.N.T.S. 334.

it took ten years to obtain the necessary acceptance of the convention to bring it into force reflects the caution with which maritime states viewed the creation of IMCO.[159] By contrast, the Convention on Civil Aviation (commonly referred to as the "Chicago Convention")[160] took less than three years to come into force.

IMCO is a specialized agency in relationship with the United Nations and has its headquarters in London in the United Kingdom. Membership in the Organization is not restricted to members of the United Nations but is open to all states.[161]

The Organization consists of an Assembly, a Council, a Maritime Safety Committee and a Secretariat. Amendments to the IMCO Constitution, not yet in force, will formalize such other important bodies as the Marine Environment Protection Committee and the Legal Committee. Both committees have been in operation for some time under the powers of the Organization to create

[159] L. Juda, "IMCO and Regulation of Ocean Pollution from Ships", 26 Int'l & Comp. L.Q., 1977, 558, at 560.

[160] See supra Note 108.

[161] Supra Note 158, Articles 5-11.

special bodies. These amendments will also open up the membership of the Maritime Safety Committee, at present restricted, to all members and expand the size of Council.[162]

The primary functions of IMCO are to provide machinery for cooperation between governments in the field of regulation relating to technical matters affecting shipping and to encourage the adoption of the highest practicable standards in matters concerning maritime safety and efficiency of navigation.[163] As the name of the Organization clearly indicates, however, its functions are consultative.[164]

The technical work of developing safety regulations is done by or under the auspices of the Maritime Safety Committee. Its duties are to consider:

> Any matter within the scope of the Organization concerned with aids to navigation, construction and equipment of vessels, manning from a safety standpoint, rules for the prevention of collisions, handling of dangerous cargoes, maritime safety procedures and requirements,

[162] See Assembly Resolution, Amendments to the IMCO Convention, IMCO Docs. A.315(ESV), 1974, and A.358(IX). For an instructive account of the organization of IMCO see the address of C.P. Srivastava, Secretary-General of IMCO, in 1976 reproduced in 29 J. of Nav. (1976) at 307.

[163] Supra Note 158, Article 1(a).

[164] An amendment has been adopted, but is not yet in force, that will delete the word "consultative" from the name of the Organization. There has also been redrafting of Article 2 of the Convention to de-emphasize the purely consultative function of IMCO and emphasize other matters such as the drafting of conventions and the convening of conferences see supra Note 162, IMCO Doc. A358(IX).

> hydrographic information, log-books and navigational records, marine casualty investigation, salvage and rescue, and any other matters directly affecting maritime safety.[165]

The actual work of formulating safety regulations is done by sub-committees and working groups of experts sent by governments and meeting under the auspices of the Maritime Safety Committee.[166] Drafts are submitted to the Committee which in turn approves them and submits them, through the Council, to the Assembly, together with its comments and recommendations.[167] It is then the function of the Assembly to recommend them to members for adoption.[168]

Where safety regulations worked out in accordance with the above procedure amount to amendments of an existing convention, for example, the 1960 SOLAS Convention, the amendment procedures established by the convention must be followed. This may, inter alia, require the calling of a conference of parties and subsequent acceptance by states of amendments adopted by the

[165] Supra Note 158, Article 29(a).

[166] The Assembly is authorized to create subsidiary bodies and the Maritime Safety Committee is required to provide machinery for performing its duties, see ibid., respectively, Article 16(c) and Article 29(b).

[167] Ibid., Article 30.

[168] Ibid., Article 16(i).

conference to bring them into force. Where the safety standards amount to a new convention, the Assembly must convene a conference under its powers in the IMCO Convention authorizing it to convene international conferences. The bringing into force of maritime convention, including amendments, is further complicated by the fact that they usually contain a minimum tonnage requirement i.e. entry into force is made dependant upon ratification or accession by states having a minimum of gross tonnage of the world's merchant fleet.[169]

To circumvent this somewhat cumbersome procedure for accomplishing its regulatory work, the technical bodies of IMCO have, from time to time, resorted to the technique of elaborating codes.[170] These codes, concerned with standards of construction and equipment of certain specialized ships, follow the system of survey and certification familiar from the earlier discussion of various conventions.[171] However, they are not conventions. They

[169]See, for example Article 15, 1973 MARPOL Convention, supra Note 119, and Article X, 1974 SOLAS Convention, supra Note 90. The convening of conferences is contained in the description of the functions of the Organization, see supra Note 158, Article 3(b). An amendment has been proposed to make this explicit in the functions of the Assembly in keeping with practice, see supra 162, IMCO Doc. A358(IX).

[170]See, for example, the Code for the Construction and Equipment of Ships carrying Liquified Gas in Bulk, adopted by Assembly Resolution, IMCO Doc. A.328(IX), and the Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk, adopted by Assembly Resolution, IMCO Doc. A.212(VII).

[171]See, for example, in the "Code for the Construction and Equipment of Ships carrying Liquified Gases in Bulk", ibid., Regulation 1.6 relating to survey and certification.

are merely recommended by IMCO to its members for implementation.[172]

C. Marine Environmental Protection

The IMCO Convention, as originally adopted, makes no mention of the protection of the marine environment. In 1948, pollution, in particular, pollution caused by accidental discharges from tankers, was not recognized as a problem that required treatment separately from safety. The era of the super tanker had not yet begun.

But even if protection of the marine environment was not mentioned in the convention, IMCO has been associated with the problem of oil pollution since the Organization's beginning. In the 1954 Oil Pollution Convention the creation of IMCO was anticipated when the "bureau" duties under the convention were assigned to it.[173] One of the first resolutions of the first IMCO Assembly was, therefore, to formally accept the duties of the Organization under the 1954 Convention.[174]

[172]Canada has adopted regulations implementing, for example, the "Code for Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk", supra Note 170, in the "Chemical Carrier (Steamship) Regulations", Canada Gazette, Part II, Vol.113, No.3, SOR/79-90.

[173]Supra Note 118, Article XXI. In the interim between entry into force of the 1954 Oil Pollution Convention and the creation of IMCO these duties were assigned to the United Kingdom.

[174]Assembly Resolution, Acceptance of Duties and under the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, IMCO Doc. A8(1).

It was not until 1965, however, that a subcommittee of the Maritime Safety Committee to deal with marine environmental protection was established under the powers of IMCO to set up subsidiary bodies.[175] At this point, however, the focus was still primarily on operational discharges of oil from ships. Indeed, as mentioned earlier, that is all the 1954 Oil Pollution Convention really attempts to regulate, at least in its present form.

The Torrey Canyon disaster, in the spring of 1967, provided IMCO with its first real involvement with accidental pollution. The two years that followed that disaster were years of intensive work at IMCO on the subject of accidental ship-source pollution, culminating in the International Legal Conference on Marine Pollution Damage in Brussels in 1969.[176]

Increasing concern at IMCO and elsewhere for protection of the marine environment was evident. In 1971 a conference under the auspices of IMCO adopted the Convention on the

[175] IMCO Bulletin, No. 6, April 1965. It has been suggested that IMCO's ineffectiveness in the field of environmental protection stems inter alia from the fact that the IMCO Convention contains no "strong mandate" in this area, see E.V.C. Greenberg, supra Note 141, at 135.

[176] For background to that conference, see Conclusions of Council, at its 3rd Extraordinary Session, IMCO Doc. C/ES.111/5. The 1969 Brussels Conference adopted two conventions, the Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties and the Convention on Civil Liability of Shipowners for Oil Pollution Damage, see supra Note 155.

Establishment of an International Fund for Compensation for Oil Pollution Damage, designed to complement the 1969 Convention on Civil Liability for Oil Pollution Damage.[177] Two years later, it has already been noted, the 1973 MARPOL Convention was adopted.

Recognizing the increasing involvement of IMCO in pollution matters, the IMCO Assembly adopted a resolution to amend the IMCO Convention to give legal recognition to the Marine Environment Protection Committee as an organ of the Organization with the same status as the Maritime Safety Committee.[178]

In the same manner as with safety, IMCO exercises purely consultative and advisory functions in this field. The duties of the Marine Environment Protection Committee, set out in Article 39 of the amendments, are stated to be, inter alia, to:

[177] B.T.S. 1978/95.

[178] See supra Note 148, IMCO Doc. A358(IX). The resolution adopted an amendment to the IMCO Convention formalizing the Legal Committee and the Marine Environment Protection Committee as principal organs of IMCO. The Legal Committee had been created as a subsidiary body in the wake of the Torrey Canyon disaster to deal with the many legal problems arising out of that disaster, in particular, the formulation of the two conventions that were subsequently adopted at the 1969 Brussels Conference on Marine Pollution see supra Note 155.

> (a) perform such functions as are or may be conferred upon the Organization by or under international conventions for the prevention and control of marine pollution from ships, particularly with respect to the adoption and amendment of regulations or other provisions, as provided for in such conventions;
>
> (b) consider appropriate measures to facilitate the enforcement of the conventions referred to in paragraph (a) above;
>
> (c) consider and take appropriate action with respect to any other matters falling within the scope of the Organization which would contribute to the prevention and control of marine pollution from ships including cooperation on environmental matters with other international organizations....

The careful manner in which the duties of the Committee are described is recognition of the fact that with respect to protection of the marine environment, in contrast to maritime safety, IMCO is not alone in occupying the field.[179]

[179] Assembly Resolution, Amendments to the IMCO Convention, IMCO Doc. A358(IX), Article 39. A number of other international organizations have an interest in protection of the environment, notably, the Food and Agricultural Organization (FAO), International Atomic Energy Agency (IAEA), the World Health Organization (WHO), the United Nations Environmental Program (UNEP) and the Organization for Economic Co-operation and Development (OECD). For a discussion of interested organizations, see Jennifer E.A.C. Thomson, The Role of International Organizations in the Light of the New Law of the Sea Convention, A Research Essay, The Norman Paterson School of International Affairs, Carleton University, Ottawa, 1977, at 59-69.

As in the case of maritime safety, the Assembly can do no more than:

> recommend to members for adoption regulations concerning....marine pollution from ships or amendments to such regulations....[180]

Where regulations take the form of a new convention or amendment of an existing one, their adoption must be achieved by diplomatic conference or by the amendment procedure laid down in the relevant convention.

The inability to adopt regulations both in the field of safety and protection of the marine environment is inherent in the very structure of IMCO. Except for its Secretariat, the organization has no other permanent body. As noted earlier, it accomplishes its technical work by means of government experts meeting from time to time. So also its Assembly and Council are composed of government representatives not permanently located at its headquarters.

[180] Ibid., Article 16(j). For a critique of the operation of MEPC, see E.V.C. Greenberg, supra Note 141, at 144-8. However, this commentator puts his finger on the nub of the problem in concluding that "IMCO can, of course, be no more effective than its member nations desire or permit it to be....", ibid. at 148.

Since ICAO fulfills functions in the field of aviation similar to those of IMCO in maritime transport, it is useful to compare the manner in which that organization does its work of international regulation.

D. International Civil Aviation Organization (ICAO)

ICAO was established under the Chicago Convention in 1947.[181] Unlike the IMCO Convention, however, the Chicago Convention is much more than the charter of an international organization. In addition to providing the constitution of ICAO, it regulates a number of other subjects related to civil aviation in its Annexes, for example, personnel licensing (Annex I), rules of the air (Annex 2), aeronautical charts (Annex 4) aircraft nationality and registration marks (Annex 7) to mention a few.

ICAO, like IMCO, is a specialist organization in relationship with the United Nations. Its governing body is its Assembly. Unlike IMCO, however, the Council of ICAO is a

[181] *Supra* Note 108.

permanent body composed of representatives from thirty states elected by the Assembly.[182] The other principal body of the Organization is the Air Navigation Commission composed of fifteen "qualified" persons appointed by states from nominations submitted by contracting states.[183] ICAO, therefore, has available, at its headquarters in Montreal, a body of technical experts on a permanent basis.

The primary function of the Air Navigation Commission is to:

> Consider, and recommend to the Council for adoption, modifications of the Annexes to this Convention.[184]

It is the responsibility of Council to adopt, by two thirds majority, the international standards and recommended practices submitted by the Commission and designated for convenience as Annexes to the Chicago Convention.[185] Any annex or amendment thereto adopted by Council becomes effective three months after its submission to member states, or at the end of

[182] Ibid., Article 50.

[183] Ibid., Article 56.

[184] Ibid., Article 57.

[185] Ibid., Article 90.

such longer period as the Council may prescribe, unless a majority of member states have registered their disapproval with the Council.[186]

Although it is clear from Article 38 that members may depart from international standards contained in the annexes, those that find it necessary to do so are required to notify ICAO immediately, giving details of the manner in which their regulations and practices differ so that other states may be notified thereof.

The legal force of international standards contained in the Annexes has been the subject of some debate.[187] It is clear from the language of Article 38 that they are not compulsory since parties may depart from them. On the other hand, under Article 37, parties undertake to

> collaborate in securing the highest practicable degree of uniformity in regulations, standards, procedures, and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation.

[186] *Ibid.*

[187] For a convenient summary of various points of view regarding the legal force of international standards in the Annexes, see E. Yemin, Legislative Powers in the United Nations and Specialized Agencies, A.W. Sijthoff, Leyden, 1969, at 138-9.

To achieve this collaboration, ICAO is required to

> adopt and amend from time to time, as may be necessary, international standards and recommended practices and procedures....[188]

Moreover, Article 38 seems to imply that parties must implement standards unless they report differences in their practices. Therefore, it can be argued that the standards are something more than mere recommendations. It is significant, as well, that Article 37 appears to draw a distinction between international standards and recommended practice, thereby implying that they are not the same thing. Presumably, therefore an international standard is something more than a recommended practice.

It has been argued that some flexibility in the legal force of the standards is necessary to take into account the varying ability of contracting states to implement them.[189] Their non-compulsory nature has enabled ICAO to develop a sophisticated aviation code with almost no opposition from

[188] Supra Note 108, Article 37.

[189] See E. Yemin, supra Note 187, at 140-1.

contracting states. Since parties that are able to implement the standards generally do so, a certain degree of standardization results in the wake of their adoption by other states as they acquire the capability to do so.[190]

The only similar procedure in IMCO is the adoption of technical codes, as noted earlier. However, as has been pointed out, these codes are truly recommendations implying no obligation on member states, except perhaps a moral one, to implement them.

E. Tacit Amendment Procedure

The inability of IMCO to adopt regulations, other than by non-obligatory codes, has been recognized as a disadvantage within the Organization for some time. At the request of the Assembly, an IMCO Secretariat study was conducted in 1971 which compared the system of adoption of regulations in several United Nations organizations. The study concluded that:

[190] T. Buergenthal, Law-Making in the International Civil Aviation Organization, Vol. 7, Procedural Aspects of International Law Series, Syracuse, University Press, 1969, at 121.

> the most significant difference between these organizations on the one hand and IMCO on the other is that, in the case of every one of them, the constitutive Instrument (i.e. the Instrument establishing the Organization) contains a provision or provisions expressly authorizing the Organization to adopt, revise or repeal various international technical and other regulations which, with few well defined exceptions, become effective and binding on Member States without the need for further acts of ratification or acceptance by them.[191]

In 1972 the Legal Committee discussed a tacit amendment procedure for IMCO conventions. A draft article for such a procedure was formulated.[192] It was agreed in the Committee that this procedure should be limited to the technical subjects in annexes of conventions. The basic provisions of conventions, on the other hand, should continue to be subject to amendment in accordance with the classical method.[193]

As a result of the deliberations within IMCO, revised amendment procedures have been included in both the 1973 MARPOL

[191] See Note by Secretariat, Assembly, 7th Session, IMCO Doc. A.VII/12, Annex, paragraph 2.

[192] See Report of the Legal Committee on work at the Fourteenth Session, IMCO Doc. LEG/XIV/4, paragraph 12.

[193] Ibid. For further discussion on this subject in IMCO, see also the Report of the Ad Hoc Working Group on Amendment Procedure to Conventions, IMCO Doc. MSC XXV/WP.6.

Convention and the 1974 SOLAS Convention.[194] Although there are differences between the procedures in the two conventions, subject to one important exception, discussed below, they are in form rather than in substance, dictated by the individual structure of the two conventions.

Both conventions can be amended by the classical method i.e. by diplomatic conference. In addition, two other methods are specified which must be followed depending on whether the amendment concerns a basic provision of the convention or a technical annex. In both instances adoption of the amendment may be by two thirds majority of the appropriate body of IMCO.[195]

The difference between the two additional methods, however, consists in how contracting states must signify their acceptance of an amendment to bring it into force. If the amendment is to a basic provision, there must be acceptance by two thirds of the contracting parties.

[194] 1973 MARPOL Convention, Supra Note 119, Article 16, and 1974 SOLAS Convention, supra Note 90, Article VIII.

[195] The 1973 MARPOL Convention ibid., Article 16(2)(c) speaks of an "appropriate body" rather than naming the Marine Environment Protection Committee since that Committee has not been formally recognized in the IMCO Convention. In the 1974 SOLAS Convention, ibid., on the other hand, Article VIII, paragraph (b), the Maritime Safety Committee has been specifically named.

At this point a material difference between the 1973 MARPOL Convention and the 1974 SOLAS Convention must be noted. The 1973 MARPOL Convention requires acceptance by two thirds of the parties, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant fleet.[196]

The 1974 SOLAS Convention, on the other hand, merely specifies acceptance by two thirds of the parties without any reference to tonnage.[197] In the year that elapsed between adoption of the two conventions there had, therefore, been a move away from the tonnage requirement.

Amendments to technical provision, on the other hand, in both conventions are deemed to be accepted if, within a specified period, no objection has been registered by one third of the contracting parties or by parties the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant fleet.[198]

[196] 1973 MARPOL Convention, ibid., Article 16(2)(f)(i).

[197] 1974 SOLAS Convention, supra Note 90, Article VIII(b)(vi)(1).

[198] 1973 MARPOL Convention, supra Note 119, Article 16(2)(f)(ii)
1974 SOLAS Convention, ibid., Article VIII(b)(vi)(2).

Although the maritime community was prepared to move away from the tonnage requirement with respect to the basic obligations of the 1974 SOLAS Convention, it was not prepared to do the same for the technical annexes. Perhaps the reason for this lies in the fact that it was recognized at the 1974 Safety of Life Conference that the general obligations, contained in the articles, have very little significance in the absence of the technical annexes.

For the moment the new amendment procedures are inoperative because the two conventions are not in force. However, they represent a significant improvement since they will enable IMCO to respond rapidly to technological change. The tacit amendment procedure for technical annexes comes very close to giving IMCO legislative functions.

But even with this improvement, a basic difference remains between IMCO and ICAO. IMCO by virtue of its structure composed only of a small permanent secretariat must largely rely

on governments to initiate change. ICAO, on the other hand, with its large permanent structure, including a considerable body of technical experts, can initiate change itself.

Summary

1. IMCO is primarily a consultative organization providing a forum for governments and their experts to meet and develop technical standards. It has no legislative functions since these reside entirely with member states.

2. Its organization consists of a Secretariat with no other permanent organ.

3. ICAO, by contrast, through its mechanism for the adoption of international standards elaborated by its Air Navigation Commission and adopted by its Council, possesses a legislative function.

4. Standards, adopted in this way, although not obligatory in the sense that departures in national standards are permitted, are something more than mere recommendations.

5. The only equivalent procedure in IMCO is the elaboration and adoption of technical codes which, however, are nothing more than recommendations.

6. The inclusions of tacit amendment procedures in the 1973 MARPOL Convention and the 1974 SOLAS Convention will enable IMCO to respond more rapidly to technical change both in the areas of safety and protection of the marine environment.

Section V - Recent Developments in International Law concerning Tanker Safety

A. Introduction

Before examining recent developments in international law that affect tanker safety it may be helpful at this point to review briefly the principal conclusions reached in previous sections.

From the facts presented in the first section, it was concluded that there is a connection between the bad safety record of some fleets and the lack of supervision exercised by their marine administrations.

In later sections it was suggested that these conditions in certain fleets have, in a sense, been compounded by the operation of the principles of international law relating to the acquisition of nationality by ships and flag state jurisdiction.

On the one hand, states have complete discretion to fix the conditions under which ships may acquire their nationality without any internationally set minimum requirements. States may, therefore, adopt rules that make it easy to acquire their nationality and thus attract large amounts of tonnage to their flags.

On the other hand, both in customary international law and in certain maritime conventions, there is strict adherence to the principle that a ship, as a general proposition, falls under the jurisdiction of the state whose flag she flies. Such jurisdiction includes the power to establish and enforce construction and equipment as well as manning and training standards.

It was noted that a number of important maritime conventions have solved the problem of inadequate aministrative machinery by allowing contracting states to appoint non-governmental agencies (classification societies) to act on their behalf in the surveying and certification of ships under their flag.

Finally, it was concluded that IMCO, the competent international organization, has no legislative powers to adopt regulations. Its efforts to improve technical standards both from the point of safety of life at sea and protection of the marine environment, are seriously hampered.

An effort has been made at three conferences in recent years to deal with these problems. They are the on-going negotiations at the third United Nations Conference on the Law of the Sea (UNCLOS III), the 1978 International Conference on Tanker Safety and Pollution Prevention and the 1978 International Conference on Training and Certification of Seafarers.

This section, therefore, examines the significance of these three conferences for tanker safety.

B. Law of the Sea Conference

The third United Nations Conference on the Law of the Sea constitutes one of the most important developments in international law in recent years. It is also one of the most

difficult and complex series of negotiations ever undertaken by an international conference. Its ultimate result is still largely a matter of speculation because of the wide range of subjects under discussion as well as the many conflicting interests represented at the conference.

In the eight sessions of the Conference, a text of draft articles, entitled the Informal Composite Negotiating Text (ICNT), has been produced covering all aspects of an eventual comprehensive law of the sea treaty.[199] Although the text is by no means finalized, the articles relating to the nationality of ships and the protection of the marine environment are now sufficiently settled to permit some conclusions to be drawn.

In the event that no law of the sea treaty is adopted, it is reasonable to assume that the principles that have been elaborated at UNCLOS III respecting ships and shipsource pollution will become part of customary international law by

[199] Third United Nations Conference on the Law of the Sea, U.N. Doc. A/CONF.62/WP.10/Rev.1 (1979).

virtue of their widespread acceptance and application through state practice.

i Nationality of Ships

The ICNT reaffirms the principle of the freedom of the high seas, which includes the freedom of navigation,[200] and its corollary that:

> Every State, whether coastal or land-locked, has the right to sail ships under its flag on the high seas.[201]

With respect to the nationality of ships, the basic principle reflected in the High Seas Convention is retained, namely, that

> Each State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly. There must exist a genuine link between the State and the ship.[202]

[200] Ibid., Article 87.

[201] Ibid., Article 90.

[202] Ibid., Article 91.

Article 94, in effect, spells out the content of the genuine link. It enunciates the general principle that a state must assume jurisdiction under its internal law over each ship flying its flag and its master, officers and crew in respect of administrative, technical and social matters concerning the ship.[203]

The article then goes on to mention that states must take appropriate measures to ensure safety at sea with regard to

> (a) The construction, equipment and seaworthiness of ships;
>
> (b) The manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments;
>
> (c) The use of signals, the maintenance of communications and the prevention of collisions.[204]

Further, flag states are required to ensure that their ships are properly and regularly surveyed and are operated by duly qualified masters and crews familiar with applicable

[203] Ibid., Article 94(2)(b).

[204] This is an expanded version of Article 10 of the High Seas Convention, supra Note 48. One notable addition is the reference in paragraph (b) of Article 94(3) to training of crews which has no equivalent in Article 10 of the High Seas Convention.

international regulations respecting safety, the prevention of collisions and the prevention, reduction and control of marine pollution.[205]

In setting out the above obligations (many of which are familiar in one form or other from conventions previously discussed), the ICNT has achieved a degree of unity in one document which does not presently exist.

The effect of these provisions will be that even where a state is not a party to the relevant international conventions governing these matters, it will be bound to exercise proper control over its ships by virtue of the overriding obligations imposed by the Law of the Sea Treaty. This may be so even if no formal treaty is adopted on the grounds that these obligations have become part of customary international law.

In response to the allegation sometimes made that some States do not hold proper inquiries into marine casualties involving their ships,[206] Article 94 requires that

[205] Ibid., Article 94(4).

[206] See, for example, A.V. Lowe, "The Enforcement of Marine Pollution Regulations", 12 San Diego L. Rev., 1975, 624 at 635.

> Each State shall cause an inquiry to be held by or before a suitably qualified person or persons into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another State or serious damage to shipping or installations of another State or to the marine environment.[207]

Where a State has "clear ground" to believe that proper jurisdiction and control have not been exercised over a ship it may make a report to the flag state. The flag state is then bound to:

> investigate the matter and, if appropriate, take any action necessary to remedy the situation.[208]

The provision has no equivalent in any existing convention. This reflects a further attempt to give some substance to the concept of genuine link. It is open to speculation what "clear grounds" mean since the text itself contains no further details. Possibly, evidence that a ship

[207] Supra Note 199, Article 94(7)

[208] Ibid., Article 94(6).

has not been surveyed in accordance with applicable international regulations would afford such grounds. Also, that it is consistently inadequately manned might be proof of a lack of proper control.

Article 94 represents significant progress over Article 5 of the High Seas Convention. One commentator has suggested that:

> to the extent that the obligations elaborated in Article 94 are opposable to flag states in the event of a binding treaty, they may offer a more practical means of protecting the marine environment and ensuring safety at sea than an attempt to spell out more precisely the ingredients of the genuine link.[209]

In essence the obligations enumerated in Article 94, represent the "ingredients" of the genuine link which were lacking in Article 5 of the High Seas Convention. It was this lack, as previously noted, that rendered the notion of genuine link largely without practical effect.

[209]Lawrence L. Herman, "Flags of Convenience - New Dimensions to an Old Problem", 24 McGill L.J., 1978, 1 at 18.

ii Protection of the Marine Environment

Before dealing with the provisions of the ICNT specifically related to protection of the marine environment from ship-source pollution, reference should be made to one of the provisions respecting the right of innocent passage as exposed in the text.

The relevant provisions of the Territorial Sea Convention make no distinction between ships such as oil tankers, which may pose a special threat of pollution to coastal states, and other ships. Accordingly, oil tankers, like any other commercial vessel, enjoy the right of innocent passage, although they may be subject to some special coastal state regulation pursuant to Article 24 of the convention which permits a state to exercise control to prevent infringement of its "sanitary regulations" within its territory or territorial sea.

The ICNT has made some useful clarification on the extent of coastal state powers in this regard. In addition to spelling out, in Article 21, the subjects on which coastal states

may make laws and regulations which will apply to all ships engaged in innocent passage, a coastal state may, in accordance with Article 22(2):

> require foreign ships exercising the right of innocent passage through its territorial sea to use such sea lanes and traffic separation schemes as it may designate or prescribe for the regulation of the passage of ships.

The ICNT has, thus, chosen to make explicit what was perhaps only implied in the traditional rights of coastal states to make laws and regulations relating to transport and navigation in their territorial sea.

Most significantly, however, the ICNT goes on to provide, in Article 22(2), that:

> tankers, nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances or materials may be required to confine their passage to such sea lanes.

The ICNT thus gives clear and unimbiguous recognition to the dangers that these ships may pose and the special traffic measures that may be necessary to deal with that danger.

Article 94, which spells out the obligations of a flag state to exercise jurisdiction over its ships, must be read with Part XII of the ICNT. It contains significant provisions designed to prevent, reduce and control pollution from ships. The drafters of this portion of the ICNT have obviously attempted to strike a balance between the interests of coastal states in adequate protection of the marine environment, and the interests of flag states in preventing a proliferation of national standards for the construction, equipment and manning of ships.

In striking that balance coastal states have had to sacrifice their freedom to set design, construction, manning and equipment standards with respect to foreign ships in their territorial waters. But has this been compensated by other safeguards? In part safeguards have been provided in the obligation of flag states spelled out in Article 94. Further obligations are provided in Part XII.

The basic principle of Part XII, set out in Article 11(1), is that

> States, acting through the competent international organization or general diplomatic conference, shall establish international rules and standards for the prevention, reduction and control of pollution of the marine environment from vessels....

The emphasis in this provision and others, discussed below, on adoption of rules and standards by the competent international organization is an obvious reference to IMCO. It will serve to underscore the important role that IMCO has to play in this area and may provide it with a mandate which, as far as environmental marine protection is concerned, is not entirely clear in its own constitution.[210]

The ICNT also provides for the promotion of the adoption, in the same manner, of routing systems designed to minimize the threat of accidents.[211]

Flag states are required to establish laws and regulations for the prevention, reduction and control of pollution of the marine environment from ships entitled to fly their flags.

[210] See discussion, supra at 103-108, concerning IMCO's involvement with marine environment protection.

[211] Ibid.

Further, such laws and regulations:

> shall at least have the same effect as that of generally accepted international rules and standards established through the competent international organization or general diplomatic conference.[212]

Coastal states may establish laws and regulations for the safety of navigation and regulation of marine traffic in the territorial sea provided such laws and regulations do not hamper innocent passage.[213]

However, at this point an important qualifier is introduced. The provisions relating to innocent passage are set out in Part II, Section 3 of the ICNT. In particular, it is made explicit that laws and regulations that a coastal state establishes in its territorial sea may not with respect to foreign ships:

> apply to the design, construction, manning or equipment of foreign ships unless they are giving effect to generally accepted rules and standards.[214]

[212] Ibid., Article 211(2).

[213] Ibid., Article 211(4).

[214] Ibid., Article 21(2).

Since discharge has not been mentioned, it may be inferred that coastal states retain the power to set their own discharge standards within their territorial sea which apply even to foreign ships.

The ICNT seeks to compensate this curtailment of coastal state power with respect of design, construction, manning and equipment by giving coastal states an important extension of jurisdiction in their exclusive economic zone. States may adopt laws and regulations to combat pollution from ships within their exclusive economic zone.[215] Those laws and regulations must, however, give effect

> to generally accepted international rules and standards established through the competent international organization or general diplomatic conference.[216]

It would appear that the coastal state is not free to set its own discharge standards in its exclusive economic zone.[217]

[215] One of the significant developments at UNCLOS III is the formal recognition in the ICNT of the right of coastal states to establish an exclusive economic zone 200 nautical miles in breadth from the base line from which the territorial sea is measured, see ibid., Part V, in particular, Article 57.

[216] Ibid., Article 211(5).

[217] This is inferred from the fact that Article 211(5), in contrast to Article 211(4), contains no cross reference to Part II, including Article 21. Accordingly, it is concluded, that all laws and regulations a coastal state establishes in its exclusive economic zone, including regulations relating to discharge, must conform to generally accepted rules and standards.

Some departure from international rules and standards is permitted in two instances. Firstly, such departure is authorized in a clearly defined area of the exclusive economic zone:

> for recognized technical reasons in relation to its oceanographical and ecological conditions, as well as its utilization or the protection of its resources, and the particular character of its traffic....218

However, in the event of the need for special rules because international rules are inadequate, a prescribed procedure must be followed, including consultation with other countries concerned, and approval of the rules by the competent international organization.[219]

Secondly, a coastal state has the right to establish special laws and regulations in ice covered areas of its exclusive economic zone:

[218] Ibid., Article 211(6). See, also, Z. Kronfol, "The Exclusive Economic Zone: A Critique of Contemporary Law of the Sea", 9 J. of Mar. & Com., 1977, 461 and 472 where he suggests that this provision is based on the Arctic Waters Pollution Prevention Act.

[219] Ibid., The reference to "competent international organization" is presumably a reference to IMCO. It is interesting to note also that the Commission of Inquiry established by the French National Assembly to investigate the Amoco Cadiz incident has suggested that the English Channel be recognized as a special area by IMCO within the meaning of this provision, see "Le Rapport de la Commission d'Enquête crée à la suite du naufrage d'un navire pétrolier sur les côtes de Bretagne" Assemblée Nationale, No. 665, Journal officiel, le 14 novembre 1978, Tome I at 79-80 and Tome II, Recommendation 5 at 12.

> where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance.[220]

This provision is particularly significant in the Canadian context since it would provide recognition of the validity of legislation such as the Arctic Waters Pollution Prevention Act.[221] That Act, in addition to applying one hundred nautical miles from the nearest land, provides authority for the adoption of regulations relating to ship construction, equipment and manning that go beyond what is internationally acceptable.[222]

The right of coastal states to establish laws and regulations in their territorial sea and exclusive economic zone subject to the restriction that they must conform to generally accepted international rules and standards is, however,

[220] Supra Note 199, Article 234.

[221] R.S.C., 1970, Chapter 2 (1st Suppl.).

[222] Ibid., in particular, subsections 3(1) and 12(1). See also, the Arctic Shipping Pollution Prevention Regulations, Canada Gazette, Part II, Vol.106, No. 20, SOR 72-426 at 1847. For an account of the main provisions of the Act, as well as its purpose and background, see D. Pharand, The Law of the Sea of the Arctic, University of Ottawa Press, 1973, at 224-244.

attenuated in a further significant respect. The ICNT recognizes the right of states to establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign ships into their ports or internal waters or call at their offshore terminals. States must give due publicity to such particular requirements and notify the competent international organization.[223]

Where these particular requirements are made in the context of a cooperative arrangement between two or more coastal states the communication to the competent international organization must indicate the participating states.[224]

The provision relating to conditions of entry and cooperative arrangements is a recent addition to the ICNT.[225] The provision is noteworthy in two respects. Firstly, it gives recognition to the right of coastal states to set conditions of entry relating to the prevention, reduction and control of

[223] Supra Note 199, Article 211(3).

[224] Ibid.

[225] The provision was discussed during the 7th Session as paragraph 2 bis to Article 212 of the ICNT as it then was before its most recent revision, see Results of Negotiations on Part XII during Seventh Session, Third Committee (Informal Meeting) MP/24, 1 (May 15, 1978).

pollution. Since no restriction is placed on the language it must be assumed that the particular requirements might relate to ship design, construction, manning and equipment, especially when the provision is compared with other provisions relating to laws and regulations in the territorial sea and the exclusive economic zone. In the latter two cases, as noted above, significant restrictions have been placed on the right of the coastal state to adopt such laws and regulations.

Secondly, the ICNT, by this provision, will provide the basis for cooperative arrangements between states. This may in time provide a very effective tool in controlling substandard ships, including of course substandard tankers. Such a provision, it is submitted, is particularly noteworthy in the North American context where most ships entering the territorial sea of Canada or the U.S. are bound for ports of either one or other country.[226]

With respect to enforcement, the primacy of flag state jurisdiction has been maintained in Part XII. However, flag

[226]The last sentence of this provision, however, should be noted as perhaps requiring some clarification. On the one hand that sentence seeks to preserve the right of innocent passage, which by definition, would include proceeding to or from internal waters, see Article 18(1)(b), supra Note 199. On the other hand, it is without prejudice to the application of Article 25(2) which expressly preserves the right of a coastal state to take the necessary steps to prevent any breach of the conditions of entry. In this connection see, also, Article 21 relating to the laws and regulations concerning innocent passage that a coastal state may adopt "in conformity with the Convention and other rules of international law", in particular paragraph 2 thereof.

state enforcement has been significantly supplemented by giving port states and coastal states certain enforcement powers. In essence the ICNT proceeds in the same manner as under traditional principles, namely, the degree of control that a state may exercise over a foreign ship is a function of the proximity of the ship to its coast.

In the first place, there is the overriding principle that flag states must ensure that their ships comply with applicable international rules and standards. To that end they must:

> adopt the necessary legislative, administrative and other measures for their implementation.[227]

They must provide effective enforcement and prescribe adequate penalties for violations committed by their ships wherever they have occurred. Furthermore, they are bound to prevent their ships from sailing until they can do so in compliance with international rules and standards.[228]

[227] Supra Note 199, Article 217(1).

[228] Ibid., Article 217(2).

The obligation of the flag state to adopt and enforce proper standards is supplemented by important port state powers. A port state may investigate and, if the evidence warrants it, institute proceedings against a foreign ship which is "voluntarily within a port or at an offshore terminal" in respect of any discharge from that ship in violation of:

> applicable international rules and standards.... outside the territorial sea, or exclusive economic zone of that State.[229]

Such proceedings may be in respect of discharge violations in the internal waters, territorial sea or economic zone of another state. This conclusion is clear from the requirement that the launching of proceedings by a port state with respect to violations in the internal waters, the territorial sea or exclusive economic zone of another state must be requested by that other state or by a state damaged or threatened by the violation.[230] The port state can, however, launch proceedings without request if it is damaged or threatened by the violation.

[229] Ibid., Article 218(1).

[230] Ibid., Article 218(2)

Similar to the MARPOL Convention, the port state is given the power to detain a ship that is in violation of applicable international rules relating to seaworthiness if she threatens the marine environment.[231]

The ICNT also provides coastal states with certain enforcement powers. These powers are concerned with violations by ships in the territorial sea and exclusive economic zone. A coastal state may with respect to a ship voluntarily within one of its ports or at one of its offshore terminals

> cause proceedings to be taken in respect of any violation of national laws and regulations established in accordance with this convention or applicable international rules and standards for the prevention, reduction and control of pollution from vessels when the violation has occurred within the territorial sea or the exclusive zone of that State.[232]

A coastal state may undertake physical inspection of a ship navigating in its territorial sea if it has clear grounds for believing that during its passage therein the ship has

[231] Ibid., Article 219 and supra Note 119, Article 5(2).

[232] Ibid., Article 220(1).

violated national laws and regulations established in accordance with the "present Convention" or applicable international rules and standards for the prevention, reduction and control of pollution. Furthermore, if the evidence justifies it, the coastal state may cause proceeding, including detention of the ship, to be taken in accordance with its laws.[233]

With respect to enforcement powers of the coastal state in the exclusive economic zone, in this instance, with one exception discussed below, the powers are restricted to inspection. Moreover the exercise of that power is subject to a number of conditions. Firstly, there must be clear grounds for believing that the ship has violated international rules and standards for the prevention, reduction and control of pollution from vessels.[234]

Secondly, the violation must have resulted in substantial discharge into and significant pollution of the marine environment.[235]

[233] Ibid., Article 220(2).

[234] Ibid., Article 220(5).

[235] Ibid.

Thirdly, inspection is only justified if the vessel has refused to give information or if the information supplied by the vessel is manifestly at variance with the evident factual situation and if the circumstances of the case justify such inspection.[236]

In this instance, therefore, in contrast to the case where a ship has been guilty of violations in the territorial sea, there is no power of arrest. Where violations are established, the coastal state must either await the arrival of the ship in its ports or offshore terminals to commence proceedings[237] or transmit the evidence of violations to the authorities of the port of destination for disposal of the matter under the extended port state powers discussed above.

This power is further supplemented by allowing the coastal state in respect of a ship navigating in the territorial sea or exclusive economic zone that has violated international rules or standards to require information regarding her

[236] Ibid.

[237] Ibid., Article 220(1).

identification, her port of registry, her last and next port of call and other relevant information required to establish whether a violation has occurred.[238]

There is, however, one instance in which a coastal state may commence proceedings, including detention of a ship, in respect of violations of applicable international rules and standards in its exclusive economic zone, namely, where there is "clear objective evidence" that a violation has resulted in discharge causing major damage or threat of major damage to the coastal State, or to any resources of its territorial sea or exclusive economic zone.[239] No details have been provided as to what "clear objective evidence" means. This, however, presumably will leave states free to give that expression meaning in state practice.

Unfortunately, the significance of the extended powers of the port state and the coastal state to take proceedings against ships for violations beyond the territorial sea is somewhat reduced since the ICNT provides that such proceedings:

[238] Ibid., Article 220(3).

[239] Ibid., Article 220(6). Originally the provision spoke of "a flagrant or gross violation", see United Nations Third Conference on the Law of the Sea, A/CONF.62/WP 10 1977, Article 221(6).

> shall be suspended upon the taking of proceedings to impose penalties under corresponding charges by the flag State within six months of the first institution of proceedings....[240]

This provision may be a retreat from the enforcement provisions included in the 1973 MARPOL Convention if it is accepted that the term "jurisdiction" may mean more than the territorial sea. Article 4 of the convention, it may be recalled, establishes the right of the coastal state to choose whether to prosecute violations committed under its "jurisdiction" or whether to refer them to the flag state.[241]

In two instances, however, coastal state proceedings are not suspended, namely, in the case of "major damage" or if the flag state has "repeatedly" disregarded its obligations to enforce.[242] But what do these safeguards mean in practice? State practice will have to provide these words with meaning.

To minimize undue delay in port, the ICNT devotes an entire section to measures designed to accelerate proceedings

[240] Supra Note 199, Article 228.

[241] Supra at 85.

[242] Supra Note 199, Article 228.

involving foreign ships.[243] A state must, for example, allow a ship to be released on a bond or other appropriate financial security.[244] The flag state must be promptly notified of any measures against one of its ships in a foreign port[245] and only monetary penalties for violations may be imposed.[246]

The provisions discussed so far have to do with establishment and enforcement of international rules and standards for the prevention, reduction and control of pollution from ships. They are, therefore, largely concerned with rules and standards relating to design, construction, manning and equipment of ships. These provisions are, however without prejudice to the right of states to take measures relating to maritime casualties beyond their territorial sea for the protection of their coastline and related interests.[247]

The right of intervention reflected in the ICNT differs from the 1969 Intervention Convention in a number of material respects. In the first place it is no longer restricted to

[243] Ibid., Part XII, Section 7.

[244] Ibid., Article 226(1).

[245] Ibid., Article 231.

[246] Ibid., Article 230(1).

[247] Ibid., Article 221.

casualties involving oil pollution but to pollution or threat of pollution generally.[248] Further, the right is in respect of measures beyond the limits of the territorial sea.[249] The right is, therefore, no longer couched in terms of a right to take measures "on the high seas". The explanation for this change is to be found in the recognition in the ICNT of the exclusive economic zone which is not assimilated to the territorial sea of a state but does not form part of the high seas.[250]

While states are bound to take measures which are "proportionate to the actual or threatened damage", there is no equivalent of Article III of the 1969 Intervention Convention which makes the exercise of the right of intervention subject to a number of conditions. Finally, amendments adopted as a result of the Amoco Cadiz incident have removed the reference to "grave and imminent danger" and placed greater emphasis on measures, pursuant to international law, "both customary and conventional" following a maritime casualty.[251] The amendments have also introduced into this provision the definition of "maritime

[248] Ibid., Article 221(1).

[249] Ibid.

[250] This must be inferred from Article 86, ibid., which specifies that the provisions of Part VII of the ICNT relating to the high seas "apply to all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a state...." See, also, Z. Kronfol, supra Note 218, at 476, where he suggests that the EEZ is not high seas but that it does retain some of the high seas freedoms, notably, navigation, over flight and laying of submarine cables.

[251] See "Results of Negotiations on Part XII during Seventh Session", supra Note 225, at 3.

casualty" found in the Intervention Convention.[252]

The ICNT does not yet represent a final text. The drafting alone requires refinement to eliminate inconsistencies of language that might otherwise cause difficulties in interpretation. A case in point is the varying use of the expression "international rules and standards".[253]

Further, it is not clear what exactly is meant by an international rule or standard - must it be embodied in an international instrument that is in force or will an instrument that has been adopted by diplomatic conference but that is not yet in force be sufficient. To put it more concretely, does the 1973 MARPOL Convention embody international rules and standards. Also, do international rules and standards embodied in an international convention bind states that are not party to it?[254]

There is no doubt that the ICNT represents a clear improvement over existing international law in its attempt to set out in greater detail the obligations of flag states to properly

[252]See, supra Note 155, Article II.

[253]For varying use of terms contrast, for example, Article 21(2) and 211(5) which speak of "generally accepted international rules or standards", and Articles 217, 219 and 220 which speak of "applicable international rules and standards".

[254]In this connection see the comments of Lawrence L. Herman, supra Note 209, at 18-19, where he suggests that if rules and standards embodied in an international convention are binding on non-parties by virtue of the overriding principles in a law of the sea treaty, this may cause some states to hesitate in ratifying such a treaty.

supervise their ships. The question remains, however, whether the clarification of these obligations is an adequate balance for the restriction of coastal states to set design, construction, manning and equipment standards in their territorial sea.[255]

In assessing the ICNT articles on ships and ship-source pollution, however, it is important to remember that they form part of a comprehensive draft treaty on the law of the sea. They cannot, therefore, be assessed in isolation since eventual acceptance of a treaty will depend on many considerations, some unrelated to ships.

C. Tanker Safety and Pollution Prevention (TSPP)

Since the emerging regime at the Law of the Sea Conference places a great deal of emphasis on "international rules and standards" certain international instruments such as the 1973 MARPOL Convention and the 1974 SOLAS Convention obtain a special significance. Whatever interpretation is finally given to this expression, it is to instruments such as these

[255]It has been suggested that perhaps a more effective approach would be to remove this restriction on coastal state powers and include, instead an effective dispute settlement procedure, see Lawrence L. Herman, ibid. Note 209, at 22-23.

two conventions that one must look for those rules and standards.

The basic control provisions of these two conventions were discussed earlier. In 1978 a major maritime conference was held which adopted significant amendments to both conventions. The conference was important because it addressed a number of problems that have been identified in connection with these conventions. The effect of these amendments will be to appreciably enhance these conventions as instruments of control of tankers and thereby offer a greater degree of safety for the marine environment.

The circumstances which gave rise to that conference are noteworthy because they illustrate two points previously made - firstly, that measures to avoid disasters are usually taken as a reaction to and not in anticipation of a disaster. Secondly, the initiative for such measures within the IMCO structure must come from governments rather than from within the Organization.

The impetus for holding the conference was the spate of tanker casualties in the winter of 1976/77 off the coast of the United States.[256] In the wake of those casualties, public opinion in the United States had become alarmed. On March 18, 1977, the casualties were the subject of a message by the President of the United States to Congress in which he announced a series of measures to improve tanker safety.[257] Some of these were subsequently adopted by the international conference.[258]

Significantly, the President added that:

> Experience has shown that ship construction and equipment standards are effective only if backed by a strong enforcement program.259

To that end, the President announced the development of a tanker boarding program, whereby the U.S. Coast Guard would board and examine foreign flag tankers calling at U.S. ports on a regular basis. Ships found to be deficient would be denied access to U.S. ports or, in some cases, the right to leave until deficiencies had been corrected.

[256]For a recital of the casualties, see Note of the Government of the United States, Maritime Safety Committee, IMCO Doc. MSC XXXVI/20/3.

[257]For the text of the message, see ibid., at 2.

[258]The President's message prescribed for tankers over 20,000 tons calling at U.S. ports, double bottoms on all new tankers, segregated ballast tanks, inert gas systems, back-up radar systems, including collision avoidance equipment and improved emergency steering standards for all tankers, ibid.

[259]Ibid.

Another important measure announced by the President related to the establishment of an information gathering system designed to keep track of tankers having histories of poor maintenance, accidents and pollution violations. Also, the information system would require the names of tanker owners, major stock-holders and changes in vessel names.[260]

The President's message was followed by a United States proposal of a program of action to the Maritime Safety Committee of IMCO in April, 1977. It contained a number of suggestions for increasing tanker safety, including the elaboration of new construction and equipment standards for tankers and improved inspection and certification.[261]

The American initiative was favourably received by the Maritime Safety Committee. In record time the necessary preparatory work was accomplished at joint meetings of the Maritime Safety Committee and the Marine Environment Protection Committee. The result was the elaboration of two draft protocols, one to the

[260] Ibid. These measures have since been adopted, see Ports and Waterways Safety and Protection of the Marine Environment Act, 1978 Pub. L. 95-474.

[261] Ibid., at 5.

1973 MARPOL Convention, the other to the 1974 SOLAS Convention.[262] These two draft protocols, together with their annexes, formed the basis for discussion at the International Conference on Tanker Safety and Pollution Prevention in London in February 1978.

The result of the Conference was the adoption of the Protocol of 1978 Relating to the International Convention for the Safety of Life at Sea, 1974 (hereinafter referred to as the "SOLAS Protocol")[263] and the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "MARPOL Protocol").[264]

The SOLAS Protocol is an instrument legally separate from and independent of the 1974 SOLAS Convention. Only States parties to the 1974 SOLAS Convention are entitled, but not obliged, to ratify the SOLAS Protocol.[265] Accordingly, the SOLAS Protocol may enter into force concurrently with the 1974 SOLAS Convention or later, but not before.

[262] Report of the Joint MSC/MEPC Meeting, IMCO Doc. MSC/MEPC/10, Annex II.

[263] International Conference on Tanker Safety and Pollution Prevention, TSPP/CONF/10.

[264] International Conference on Tanker Safety and Pollution Prevention, TSPP/CONF/11.

[265] Supra Note 262, Article IV(3).

The MARPOL Protocol, on the other hand, is merged with the 1973 MARPOL Convention and the two instruments should be read and interpreted as one instrument. The MARPOL Protocol is open to ratification by any state, which, in doing so must give effect to the 1973 MARPOL Convention, as modified by the MARPOL Protocol.[266]

The reason for this approach is to be found in the compulsory annexes to the 1973 MARPOL Convention, in particular, Annex II, dealing with maritime carriage of noxious liquid substances in bulk.[267] This Annex presents technical difficulties in implementation and, therefore, has been one of the reasons preventing states from ratifying the Convention. A modification in the 1978 Protocol has removed that difficulty by, in effect, suspending the operation of that Annex.[268]

The protocols are largely devoted to technical changes relating to the construction and equipment of tankers, designed to improve their safety. With some modification the American

[266] Supra Note 264, Article 1(1)(b).

[267] Supra Note 119, Article 14(1) it may be recalled divides annexes to the Convention into compulsory ones (Annex I and II) and optional ones (Annexes III, IV and V).

[268] Article II of the Protocol, supra Note 264, postpones entry into force of Annex II for three years from the date of entry into force of the Protocol or such longer period decided by a two thirds majority of parties to the Protocol in the Marine Environment Protection Committee.

proposals in the President's message, referred to earlier, were adopted. There is provision, for example, for improved steering gear standards,[269] radar and collision avoidance aids,[270] segregated ballast tanks for classes of tankers not previously required to have such tanks,[271] a choice between double bottoms or protective location of segregated ballast tanks[272] and inert gas systems for certain classes of tankers.[273]

But, as noted in President Carter's message, construction and equipment standards are effective only if backed by a strong enforcement program. The protocols tackle this matter in two ways. Firstly, significant changes are made in the survey and certification requirements of both conventions. Secondly, the powers of classification societies are increased where states rely on them to fulfill obligations respecting survey and certification of ships.

As discussed earlier, two of the certificates required by oil tankers under the 1974 SOLAS Convention are cargo ship

[269] SOLAS Protocol, International Conference on Tanker Safety and Pollution Prevention, TSPP/CONF/10/Add. 1, Chap. II, Regulation 29.

[270] Ibid., Chap.V, Regulation 12.

[271] MARPOL Protocol, International Conference on Tanker Safety and Pollution Prevention, TSPP/CONF/11/Add.1 Annex 1, Regulation 13.

[272] Ibid., Regulation 13E.

[273] Supra Note 269, Chapter II, Regulation 60(d).

safety construction and equipment certificates.[274] Under the 1973 MARPOL Convention oil tankers must hold an international oil pollution prevention certificate.[275] The certificates are obtained on successful completion of a survey.[276]

Both protocols introduce uniform provisions for periodical surveys i.e. at intervals specified by the relevant marine administration but not exceeding five years.[277] In addition, a tanker of ten years and over must undergo a minimum of one intermediate survey during the period of validity of its Cargo Ship Safety Construction Certificate.[278] The intermediate survey must include inspection of, inter alia, steering gear equipment and associated control systems and the outside of the ship's bottom.[279]

Both protocols, in addition, specify that states make arrangements for unscheduled inspections of ships during the validity of certificates to ensure that ships and their equipment remain in all respects in satisfactory condition.[280]

[274] Supra Note 90, Chapter I, Regulation 12.

[275] Supra Note 119, Annex I, Regulation 5.

[276] See 1974 SOLAS Convention, supra Note 90, Chapter I, Regulation 4, and 1973 MARPOL Convention, supra Note 119, Annex I, Regulation 4.

[277] SOLAS Protocol, supra 269, Chapter I, Regulation 10(a), and MARPOL Protocol, supra Note 271, Annex I, Regulation 4(b).

[278] SOLAS Protocol, ibid., Regulation 10(a)(ii).

[279] Ibid.

[280] Ibid., Regulation 6(b) and, supra Note 271, Annex I, Regulation 4(3)(b).

Finally, there is a requirement in the MARPOL Protocol whereby a ship's master or owner must report any accident or defect which:

> substantially affects the integrity of the ship or the efficiency or completeness of its equipment.[281]

Such accident or defect must be reported to the flag administration and to the classification society that issued the certificates for an investigation whether a survey of the ship is necessary. In a foreign port, the authorities must also be notified. In this way the competent authorities are quickly notified of matters affecting the safety of the ship to ensure that corrective action is taken immediately and, if necessary, the ship is prevented from sailing in an unsafe condition.

The tighter survey and certification requirements must be considered together with the significant modifications to the powers of classification societies. It will be recalled that both the 1973 MARPOL Convention and the 1974 SOLAS Convention authorize the use of these societies, which is particularly

[281] MARPOL Protocol, ibid., Regulation 4(4)(c).

convenient for those oil tanker fleets that rarely, if ever, enter the waters of their flag states.

There are obvious difficulties with the present system of certification by classification societies. Classification societies have the power only to grant or withhold a certificate. Neither the classification society nor the port state that detects deficiencies in the condition of the ship or its equipment can suspend the relevant certificate. That is the sole prerogative of the flag state. Accordingly, both protocols provide that a classification society nominated to carry out inspection and surveys must be authorized to:

> (i) require repairs to a ship, and
> (ii) carry out inspections and survey if requested by the appropriate authorities of a Port State.[282]

Flag administrations are also bound to supply IMCO with a list of their nominated classification societies, outlining the specific responsibilities and conditions of their authority for distribution to other parties.

[282] Ibid., Regulation 4(3)(c) and supra Note 269, Chapter I, Regulation 6(c).

The object of these amendments is to make the classification societies the "long-arm", as it were, of the marine administration that appoints them. In this way effective action can be taken against ships in foreign ports while at the same time respecting the principle of flag state jurisdiction.

Where an appointed classification society carries out an inspection at the request of a port state, it may withdraw the relevant certificate if inspection shows that the ship or its equipment do not correspond substantially with the particulars of the certificate and corrective action ordered by the society has not been taken.[283]

The significance of this is that it is the flag state, acting through an appointed classification society, that is taking action against one of its flag vessels and not the port authorities. The modification is, therefore, designed to enable the flag state to take action directly and immediately where deficiencies are detected and they present a danger to life or

[283]SOLAS Protocol, supra Note 269, Chapter I, Regulation 6(d), and MARPOL Protocol, supra Note 271, Annex I, Regulation 4(3)(d).

the marine environment. The withdrawal of a valid certificate is an efficient method of ensuring that those responsible for the ship will take corrective action. The lack of a valid certificate can cause serious difficulties in obtaining clearance to sail or obtaining entry to a port.

The Conference, in addition to the two protocols, adopted eighteen resolutions.[284] While most of them deal with technical subjects beyond the scope of this study, there are a number that have to do with the implementation of the protocols. In resolution 1 and 2, target dates have been set for the entry into force of the protocols. In the case of the MARPOL Protocol, the date is June 1981. Since the 1974 SOLAS Convention is almost ready to enter into force, June 1979 has been specified as the date for the SOLAS Protocol.

In the case of both protocols, states that have not deposited instruments of ratification a year before the target date, are invited to give the Secretary-General of IMCO an

[284] International Conference on Tanker Safety and Pollution Prevention, TSPP/CONF/12.

indication of the period within which they expect to be able to do so. Governments are also urged to put into effect requirements contained in the protocols, even before they have entered into force.[285]

The unusual step of setting target dates was prompted by the poor acceptance record of IMCO conventions. It emphasizes the desire of the Conference that in a matter as urgent as tanker safety, implementation of effective measures should be swift.

In sum, the SOLAS Protocol and the MARPOL Protocol represent constructive modifications to the two major conventions that deal with safety and protection of the marine environment. They represent a comprehensive approach to the whole question of tanker safety, demonstrating that the two are inextricably joined and cannot be dealt with separately. But perhaps there most significant contribution in the context of this study lies in their attempt to ensure that tankers are subject to regular and effective control.

[285] Ibid., Resolutions 1 & 2.

D. Training, Certification and Watchkeeping

Another significant maritime conference held in 1978 dealing with tanker safety was the London Conference on Training and Certification of Seafarers.

The subject of training and manning had received intensive consideration within IMCO long before the holding of the diplomatic conference in 1978. Ever since the Torrey Canyon disaster it had been recognized that human error was an important factor in maritime disasters. It was clear, therefore, that while the improvement of technical standards of construction and equipment of ships would do much to alleviate the problem of tanker incidents, it would not achieve a substantial reduction of these incidents. This, it was recognized, could only be achieved by establishing satisfactory standards for the training of crews and manning of ships.

Specifying training and manning requirements is difficult because it involves much more than cost. First of all

there is the problem of setting standards for competency, always a difficult enterprise. As noted earlier, it also touches upon the internal management of the ship, an area traditionally falling under national jurisdiction and the right of the owner to manage his own affairs through labour/management discussions.

The complex nature of the subject is indicated by the seven years of preparatory work within IMCO which preceded the 1978 Conference. In 1971 the Assembly of IMCO instructed the Maritime Safety Committee to take the matter under consideration, and at the 24th Session of that committee, a subcommittee on Standards of Training and Watchkeeping was established to develop standards.

In the course of its ten sessions, it became evident to the experts in the subcommittee that the standards being developed should be embodied in a convention to be considered and adopted by an international conference.

The 1978 conference, co-sponsored with the International Labour Organization (ILO), was the biggest ever held by IMCO. Seventy-two national delegations attended as well as observers from a host of international organizations interested in the subject. As the president of the conference, Tage Madesen, described it, the convention adopted represents the "last stone in the IMCO building".[286]

The comment of Mr. Madsen may have been a little premature since the Convention on Standards of Training, Certification and Watchkeeping of Seafarers, as the name states, is confined to training, certification and watchkeeping.[287] The subject of manning has been left to be dealt with by a subsequent conference mainly because of the technical problems involved in developing comprehensive standards for the large variety of different ships involved.

Nonetheless, the convention does contain provisions that have implications for manning. For example, in the area of watch-

[286]This comment is reported in Fairplay International Shipping Weekly, July 13, 1978, at 11.

[287]International Conference on Training and Certification of Seafarers, 1978, STW/CONF/13.

keeping, the principle is enunciated that the composition of the watch must at all times be adequate and appropriate to prevailing circumstances[288] and the watch system such that the efficiency of watchkeeping officers and ratings is not impaired by fatigue.[289] These provisions have a clear bearing on manning.

The convention follows the pattern of other maritime conventions of a technical character discussed earlier in this study. It consists of general articles to which are appended six chapters of technical standards.[290]

The convention attempts to regularize, on an international basis, the practices for granting of certificates of competency, and to enunciate some basic principles of good watchkeeping. The convention provides for the granting of certificates to masters, officers and ratings where the relevant marine administration is satisfied that the requirements of experience, age, medical fitness, training, qualification

[288]See International Conference On Training and Certification of Seafarers, STW/CONF/15, Chapter II, Master-Deck Department, Regulation 11/1, 4(a).

[289]Ibid., Chapter II, Regulation 11/1, 5.

[290]International Conference on Training and Certification of Seafarers, STW/CONF/14, 15, 16, 17, 18 and 19.

and examination laid down in the chapters have been met.[291]

The convention does not provide for the issue of international certificates. The task of examining candidates is left to individual administrations who must judge whether standards of the convention have been met. The convention merely requires an "endorsement" of the certificate that the holder is qualified in accordance with the convention.[292]

There is provision for granting dispensations for the holding of a valid certificate but these are restricted to cases of "exceptional necessity" and are limited to a period not exceeding six months. In the case of a master or a chief engineer officer, dispensation is only permitted in circumstances of force majeure.[293]

The convention addresses another important question with respect to training, namely, it is explicit in requiring masters and officers to maintain adequate standards of competency. Chapter II makes it obligatory for every master and deck officer

[291] Supra Note 287, Article VI.

[292] Ibid. and supra Note 290, STW/CONF/14, Chapter I, Regulation I/2, paragraph 3.

[293] Supra Note 287, Article VIII.

holding a certificate to satisfy the relevant administration of his medical fitness and professional competence at regular intervals not exceeding five years.[294]

Further, in recognition of the dangers that oil tankers represent, both from the point of view of safety of life and protection of the marine environment, Chapter V is devoted to training and qualifications of masters, officers and ratings on board these ships. Regulation V/1 is aimed at ensuring that officers and ratings have completed the necessary course to familiarize themselves with safety aspects, such as fire fighting and cargo handling as well as procedures for the prevention of pollution.

Also, the convention requires that masters be aware of the serious effects of operational and accidental pollution of the marine environment and take all possible precautions to prevent such pollution.[295]

[294] Supra Note 290, STW/CONF/15, Regulation II/5.

[295] Ibid. Regulation II/1, paragraph 11.

An important feature of the convention is its control provisions designed to eliminate unnecessary delay of the ship in port. In this respect, therefore, the convention follows the pattern established in other IMCO conventions, such as the SOLAS conventions and the Load Line Convention, but with some notable modification.

In accordance with Article X, certificates are subject to verification in port by duly authorized officers and must, as a general rule, be accepted. There are only two instances in which a certificate can be questioned, namely, where:

> there are clear grounds for believing that a certificate has been fraudulently obtained or that the holder of a certificate is not the person to whom that certificate was originally issued.

Controls permitted by Article X are supplemented by detailed control procedures laid down in Chapter I which allow an assessment to be made of the ability of the master and his crew to maintain proper watchkeeping standards if:

(i) the ship has been involved in a collision, grounding or stranding;

(ii) there has been a discharge of substances from the ship when underway, at anchor or at berth which is illegal under international conventions, or

(iii) the ship has been manoeuvered in an erratic or unsafe manner or navigational course makers or traffic separation schemes have not been followed.[296]

The circumstances described in Chapter I illustrate very clearly the close relationship, recognized by the conference, between unsafe practices in the operation of ships and maritime disasters resulting in pollution.

The appropriate representative of the flag state must be informed if deficiencies are detected but detention of ships by port authorities under the convention is restricted to two instances. Firstly, where there has been a failure to correct deficiencies in the certification of the master, chief engineer, officers in charge of navigational and engineering

[296] Supra Note 290, STW/CONF/14, Regulation 1/4, 1(b).

watches and radio officers. Secondly, where deficiencies have not been corrected with respect to navigational or engineering watch arrangements to bring them into conformity with the requirements specified for the ship by the flag state.[297]

Detention is not permitted under the convention in relation to other deficiencies, unless these endanger persons, property or the environment and then only for the purpose of removing that danger.[298] For example, the absence in a watch of a qualified person to operate pollution prevention equipment would not be grounds to detain the ship unless on account of the size and type of the ship and length of the voyage this absence poses a danger.[299]

The explanation for this somewhat arbitrary distinction is apparently due to the fact that the control provisions represent a compromise resulting from some of the toughest negotiation at the conference. The draft convention submitted to the conference did not contemplate any power of detention by the port state.[300]

[297] Ibid., Regulation I/4(3).

[298] Supra Note 287, Article X(3).

[299] There is, it is submitted, some ambiguity with respect to the power of detention under the convention by virtue of Article X(3) and Chapter I, Regulation I/4, 3. Whereas the latter provision seeks to restrict the power by limiting the grounds for detention, the former requires port authorities to take steps to ensure that the ship does not sail where she poses a danger to persons, property or the environment.

[300] See Report of Maritime Safety Committee, IMCO Doc. STW X/7. This observation is also confirmed by discussions the writer had with members of the Canadian delegation to the conference.

These were added at the conference.

To discourage unnecessary delay, the convention provides for the payment of compensation for any loss or damage resulting from undue detention or delay.[301]

Implementation of the convention presents two difficulties. Firstly, the technical standards of training and certification represent a considerable cost for participating states in providing the necessary facilities. In contrast to other technical maritime conventions, the obligations under this convention cannot be fulfilled on behalf of the flag administration by nominated non-governmental agencies. This poses a special problem for those states with insufficient administrative machinery to deal with certification in accordance with the convention. Secondly, the transitional provisions will have the result of delaying the effect of the convention for a number of years even after its entry into force.

Even for developed nations the facilities required to accomplish the necessary training of seafarers may present a

[301] Supra Note 287, Article X(4).

problem. In recognition of the costs involved, the convention provides for technical assistance, coordinated by IMCO, for developing countries. Some of these have or are in the process of establishing merchant marines. Article XI specifies that parties may request technical assistance for:

(a) training of administrative and technical personnel;

(b) establishment of institutions for the training of seafarers;

(c) supply of equipment and facilities for training institutions;

(d) development of adequate training programmes, including practical training on sea-going ships; and

(e) facilitation of other measures and arrangements to enhance the qualifications of seafarers.

The convention, in Article VII, has two significant provisions affecting its implementation. Firstly, a certificate of competency issued in accordance with the laws of a party, before entry into force of the convention for that party, must be recognized as valid by other parties. Secondly, for a period,

not exceeding five years after entry into force of the convention for a party, it may issue to seafarers who commenced their service before entry into force of the convention, certificates of competency in accordance with its previous practices.

For practical reasons some transitional arrangements are, no doubt, necessary to put in place the necessary administrative machinery. Also, some period of transition is necessary to protect acquired rights. Nonetheless, the indiscriminate recognition of all certificates may prove to be an obstacle to ratification for those states that are unwilling to recognize existing certificates which are issued under practices that are deemed to be unacceptable.[302]

The convention, in spite of some of its shortcomings, represents an important instrument that clearly recognizes the connection between adequate training and protection of the marine environment. However, it is only a start. Because of the diversity of the members of IMCO from the point of view of

[302]Canada, for example, gives the Minister of Transport a discretion with respect to the acceptance of foreign certificates, see "Ship's Deck Watch Regulations", subsection 8(1), Canada Gazette, Part II, Vol.110, No.12, SOR/76-374.

technological advance the terms of the convention must necessarily represent a minimum - otherwise agreement would not have been possible.[303]

Summary

1. In recent years, three international conferences have been held which will have an important effect on tanker safety once the instruments they have formulated enter into force.

UNCLOS III

2. The articles of the ICNT produced by the Third United Nations Conference on the Law of the Sea specify a series of obligations respecting the control that flag states must exercise over their ships. These obligations give substance to the notion of genuine link which has been retained.

[303]This also seems to be the view of the Commission of Inquiry of the French National Assembly into the Amoco Cadiz incident which recommends that the amendment procedure contained in the convention be used to improve the terms of the convention, see supra Note 219, at 141-2.

3. With respect to protection of the marine environment, the ICNT proceeds on the basic principle that rules and standards for the prevention, reduction and control of pollution from ships shall be internationally established.

4. Flag states must adopt laws and regulations that have at least the same effect as those international rules and standards.

5. Flag States must also ensure that their ships comply with these laws and regulations.

6. Coastal states may adopt national laws and regulations respecting ships in their territorial sea provided that with respect to foreign ships design, construction, manning and equipment standards are not imposed that exceed international rules or standards.

7. Coastal states may also adopt laws and regulations with respect to ships in their exclusive economic zone provided that with respect to foreign ships these conform

to international rules and standards.

8. There is a mechanism for the adoption of special laws and regulations in respect of shipping within a clearly defined area of the exclusive economic zone for recognized technical reasons but other interested states must be consulted and the competent international organization must give its approval.

9. A coastal state has the right to adopt special laws and regulations in ice covered areas of its exclusive economic zone where this is warranted to avoid marine pollution which could cause major harm to or irreversible disturbance of the ecological balance.

10. States have the right to adopt particular requirements for the prevention, reduction and control of pollution as a condition of entry of foreign ships into their ports, internal waters or call at their offshore terminals.

11. The ICNT provides for the establishment of cooperative arrangements between two or more coastal states.

12. Enforcement is primarily vested in the flag state in respect of violations wherever they occur.

13. Enforcement powers are also given to the port state in respect of violations of international discharge standards beyond its territorial sea, including, under certain circumstances, violations in the internal waters, territorial sea and exclusive economic zone of other states.

14. Coastal states may, under certain circumstances, investigate and prosecute violations of international rules and standards for the prevention, reduction and control of pollution from ships committed in their territorial sea or exclusive economic zone.

15. The flag state may pre-empt any proceedings in respect of their flag ships by any other party for violations beyond the territorial sea of that party.

16. The right is preserved of coastal states to intervene on the high seas by taking measures to protect their coastlines and related interests from damage following a maritime casualty.

Tanker Safety and Pollution Prevention

17. The 1978 Tanker Safety and Pollution Prevention Conference adopted amendments to both the 1973 MARPOL Convention and the 1974 SOLAS Convention.

18. In addition to a number of technical improvements in tanker construction and equipment, the system of inspection and certification has been improved by the requirement of periodic and unscheduled survey and special surveys for tankers over ten years of age.

19. The position of classification societies has been clarified by giving them powers which permit them to exercise more effective control over ships that they have been nominated to survey and certify.

20. Masters and owners are required to report accidents or defects that substantially affect the integrity of ships or the efficiency or completeness of their equipment.

21. Target dates have been set for the entry into force of both protocols and states that are unable to deposit instruments of ratification a year before the target dates are invited to indicate when they expect to do so.

22. In any event, states are invited to put into effect the provisions of the protocols before they have entered into force.

Training and Certification

23. Training, certification and watchkeeping have been traditionally regarded as falling under the jurisdiction of the flag state and the right of the owner to manage his own affairs.

24. The 1978 Convention on Standards of Training, Certification and Watchkeeping of Seafarers sets minimum standards in the area of training, certification and watchkeeping, with special reference to tankers, aimed at improving safety and protection of the marine environment.

25. Provisions have been included respecting the controls that may be carried out by port state authorities and the circumstances under which ships may be detained.

26. A ship that is unduly detained is entitled to compensation for any loss or damage resulting therefrom.

27. The costs involved in implementing this convention, as well as its transitional provisions, are likely to delay its entry into force for some time.

Section VI - CONCLUSIONS AND ASSESSMENT

This study set out to examine the controls that exist under international law for tankers, with particular reference to flags of convenience. While it was recognized that causes of specific tanker incidents are technical and human, the controls that are exercised to ensure that ships are properly constructed, equipped and operated in a manner consistent with safety of life at sea and protection of the marine environment, provide a legal dimension to the problem of such incidents (supra at p.7-8).

It was noted at the outset that the safety record of a number of large fleets, some, but certainly not all, registered under flags of convenience, has not been good. The evidence indicates that the bad safety record results, at least in part, from inadequate controls exercised by administrations in respect of their ships. The lack of control is a factor of the size of some of these fleets and the fact that in many instances the ships

concerned are rarely, if ever, in the waters of the flag state (supra at pp. 19-22).

Fundamental to the system of control is the principle of flag state jurisdiction, the corollary of the principle of the freedom of the high seas, whereby a ship falls under the jurisdiction of the state whose flag she is entitled to fly. With few exceptions this applies on the high seas and to some extent in the territorial sea and even in ports of a foreign state (supra at pp. 40-48).

Maritime conventions have been true to that principle, seeking to minimize, by a system of certification of ships, interference with shipping in foreign ports. Certificates are issued to ships by flag administrations after appropriate survey and inspections but this task may be transmitted to non-governmental bodies (classification societies). As a general rule these certificates must be accepted by other states party to the conventions (supra at pp. 60-61 and 83-84).

Two further factors were identified as having a bearing

on tanker safety, namely, traffic regulation of ships and training and manning. By virtue of the principle of freedom of the high seas adherence to traffic separation schemes on the high seas is voluntary except where they have been made obligatory under national law. The 1972 Convention on the International Collision Regulations has made no change in that regard (supra at pp. 68-72).

Training of officers and crew and manning of ships is left to flag administrations to regulate. Conventions adopted by the International Labour Organization clearly attempt to impose some obligations on flag states in this regard but the language is too general to be of great significance. The SOLAS Conventions merely require contracting governments to ensure that all ships under their jurisdiction are sufficiently and efficiently manned (supra at pp. 63-68).

While IMCO represents a useful mechanism for consultation, it has no legislative function. The establishment and modification of technical standards must, in large measure, be

achieved by the adoption and amendment of conventions by lengthy amendment procedures laid down in the instruments concerned or the usual method of diplomatic conferences followed by ratification or accession by states to bring them into force. Moreover, entry into force is tied to a minimum tonnage requirement, thus ensuring effective control by states with large fleets (supra at pp. 100-102).

So much for the elements of the problem. In the twelve years since the Torrey Canyon disaster, there has been a great deal of international activity directed at each of the matters identified above. First and foremost is the on-going Third United Nations Conference on the Law of the Sea. That conference is attempting to complete what had been left incomplete at the two previous conferences, namely, the drafting of a comprehensive treaty covering all aspects of the law of the sea.

The emerging regime at UNCLOS III contains important provisions concerning the protection of the marine environment

from pollution by ships. In the first place, it attempts to give substance to the notion of genuine link by spelling out in considerable detail the controls that states must exercise in respect of ships flying their flags (supra pp. 123-127).

In seeking to balance the interests of flag states in uniform standards of design, construction, manning and equipment of ships and the interests of coastal states in protection of the marine environment in areas adjoining their coasts, the principle of international standard setting has been firmly established but the ICNT seeks to supplement the enforcement powers of flag states by giving port states and coastal states significant powers in this regard (supra pp. 130-133 and 137-143).

Although negotiations at UNCLOS III are not yet complete, the emerging regime relating to shipsource pollution, being the fruit of compromise, contains some shortcomings. The most obvious relate to the lack of precision of the term

"international rule or standard" to which coastal states must adhere in establishing laws and regulations in their territorial sea and exclusive economic zone which apply to foreign ships. Also, the right of the flag state to pre-empt proceedings in respect of violations beyond the territorial sea does not inspire confidence.

However, these shortcomings must be balanced with obvious improvements in the emerging regime. Three of these merit particular mention. Firstly, it is submitted, the extension of port state powers to investigate and prosecute discharge violations committed beyond its territorial sea, including violations committed in the exclusive economic zone, territorial sea and internal waters of another state may, in time, prove an efficient tool to deal with such violations which under present circumstances, for jurisdictional and other reasons, often remain unprosecuted.

The extent of the limitation on coastal state power to set design, construction, manning and equipment standards in its

territorial sea has perhaps been somewhat reduced by the express recognition in the ICNT of right of states to set conditions for entry of ships into their ports or internal waters. Since most ships entering the territorial sea are bound for port or internal waters, at least in the North American context, this provides states with an effective mechanism for ensuring that ships coming into their waters are in a safe condition.

The above power may prove particularly effective if exercised within the context of cooperative arrangements between neighbouring states. Such cooperative arrangements have been recognized in the latest revision of the ICNT.[304]

Finally, recognition for the need under certain circumstances to depart from international rules and standards in clearly defined areas of the exclusive economic zone provides some relaxation from the general rule about applying only international rules and standards. The French Commission of Inquiry into the Amoco Cadiz incident has already made some proposals of

[304]It is interesting to note the recommendation for bilateral and regional action to solve shortcomings in international law made by the French Commission of Inquiry into the Amoco Cadiz incident, supra Note 219, Tome II at 17.

how that provision of the ICNT might be put to practical use by suggesting that IMCO proceed with a systematic assessment of all areas considered dangerous to shipping for the purpose of establishing mandatory routing systems.[305]

From a Canadian perspective Article 234 of the ICNT relating to ice-covered waters requires mention because of its implicit recognition of such legislation as the Arctic Waters Pollution Prevention Act (supra pp. 134-135).

International standard setting, it was noted, is achieved through such instruments as the 1973 MARPOL Convention and the 1974 SOLAS Convention. The rapid amendment procedures contained in these two conventions will provide a more effective method for the future adoption of standards elaborated by IMCO (supra at pp. 112-117).

The 1978 protocols to these two instruments contain important technical measures designed to improve tanker safety. But for the purpose of this study, the most significant measures

[305] Ibid., at 10-14.

adopted in these instruments relate to introduction of periodic and unscheduled surveys and special surveys for older tankers (supra p.155).

The instruments have also sought to tackle the difficult problem of the relationship between classification societies appointed by states to fulfill their obligations relating to survey and certification (supra at pp. 156-159). These provisions, once put into force, will improve control states must exercise over their ships, especially in those instances where the ships, rarely, if ever, enter the ports of the flag state.

While traffic management on the high seas continues to be conducted on a voluntary basis, IMCO has been given important coordinating functions under the 1972 Convention on the International Regulations for Preventing Collisions at Sea (supra at pp. 71-72).

Finally, the recently adopted Convention on Standards of Training, Certification and Watchkeeping is noteworthy. While it

is recognized that this convention is merely a start in an area considered vital for effective prevention of pollution by ships, international hesitation in tackling this subject, hitherto thought to fall within national jurisdiction, has been overcome.

The striking fact, however, with respect to this recital of instruments is that, with the exception of the 1972 Convention on the Collision Regulations, none are in force. Indeed, in the case of UNCLOS III, proceedings have not yet produced a final draft law of the sea treaty that could be submitted to states for adoption at a diplomatic conference.

But what is the reason for the bad acceptance record of existing conventions? Four factors may be identified. Firstly, there are the conditions for entry into force laid down in the conventions themselves. In the case of maritime conventions there is usually a tonnage requirement i.e. entry into force depends on both the participation by a specified number of

states and states having a minimum of gross tonnage of the world's merchant shipping.[306] Entry into force, therefore, depends on the will of the large maritime states.

Secondly, there are the technical and administrative implications involved in the implementation of conventions. These involve two factors - cost and technical know-how. Until recently a major obstacle to ratification of the 1973 MARPOL Convention has been the obligation to accept, in addition to Annex I dealing with oil, Annex II dealing with noxious liquid substances. Most maritime states are not prepared at this time to impose on their industry the costs involved in conforming with the regulations in Annex II. The 1978 Protocol has now removed this obstacle.[307] But even with Annex II suspended, the convention has other costly implications.[308]

As to technical know-how, it is significant that the provision for technical assistance has become a standard feature

[306] Supra Note 169. See also Article XIV, Convention on Training, Certification and Watchkeeping of Seafarers, supra Note 287.

[307] Supra at 153.

[308] As to costs involved, see the instructive remarks of B.J. Abrahamsson in "The marine environment and ocean shipping: some implications for a new Law of the Sea", 31 International Organization, 1977, 291 at 302-303. Also the remarks J.N. Archer, Under Secretary, Marine Division, United Kingdom Department of Trade, to the Seminar on Tanker Safety and Pollution Prevention, October 16-17, 1978, in General Problems of Implementation and Enforcement, IMCO Doc. TSPP/SEM/4 at 7-8.

of modern technical maritime conventions.[309] A number of developing countries have manifested an intention to develop their own merchant fleets. They will only be able to meet the new and improved standards through technical assistance from developed nations.

A time consuming element is the legislative procedures involved in the implementation of international conventions. In many countries, including Canada, implementation of conventions often requires changes in the law. Ratification without such implementing legislation in place, while technically possible, is impractical. Governments must, therefore, find a priority in their program for the adoption of such laws. In most countries parliamentary timetables are simply overloaded.

Finally, there is the political will of governments to implement international conventions involving decisions not only of an economic and technical nature. Often delay occurs

[309]See, for example, Article 17, 1973 MARPOL Convention, and Article XI, Convention on Training, Certification and Watch-keeping of Seafarers, supra Note 287. See, also, A.W. Anderson, supra Note 14, at 1013. Note, also, the establishment of a Marine Safety Corps by the Conference on Tanker Safety and Pollution Prevention, Resolution 11, supra Note 284. It is significant that IMCO, under amendments to its constitution, has added a part to deal with technical assistance, see supra Note 162, IMCO Doc. A.315(ESV), 1974, Part X.

because conventions require the forebearance of controls and other acts of sovereignty which cannot be accepted lightly.

In the wake of the Amoco Cadiz disaster the question of tanker safety is once again a top priority item for discussion. It is too early to predict whether the result will be further international conventions.[310] The question arises, however, whether further instruments can usefully be adopted at this time.

There can be no doubt that in certain areas further action is required. One of these has already been identified. In the area of training and certification a start has been made with the adoption of the 1978 Certification Convention. An indication that work in this area is not complete is reflected in the fact that a number of recent incidents have not involved substandard ships but ships that would be regarded as being in good condition. The accidents were caused or contributed to by errors in judgement.

[310]The Council of IMCO has referred three subjects to the Legal Committee for study - the adequacy of compensation available to victims for oil pollution damage, mandatory reporting for masters of malfunctioning of their ships or vital equipment and the regime of salvage and assistance. For progress of discussions at IMCO, see the Reports of the Legal Committee at the 35th, 37th, 38th and 40th sessions, IMCO Docs. LEG XXXV/4, paragraphs 40-68, LEG XXXVII/7, paragraphs 6-51, LEG XXXVIII/5, paragraphs 102-107 and LEG XL/5, paragraphs 6-46.

Another area that requires detailed attention is the whole relationship between the master, the shipowner and the relevant flag administration. It is essential that the master of a tanker acquire some real liberty of action when confronted with a situation that may give rise to pollution. The suggestion has been made that masters are sometime guided by the desire to expose the shipowner to a minimum of costs rather than protection of the marine environment.[311]

Also, the whole question of salvage with respect to the specific case of oil tankers in difficulties in proximity to coasts may require further examination. More particularly, are the traditional rules of salvage, based on the principle of "no cure - no pay" appropriate? Do these rules lead to haggling over the terms of the contract of salvage and thereby contribute to delay in the taking of appropriate measures when speed is of the essence?

Aside from these areas, however, it is submitted, that the main efforts must now lie in the implementation of instruments

[311] IMCO is currently studying the various constraints placed on masters by owners and charterers, see Report to Council, Ad Hoc Working Group on the Relationship between Shipmaster, Shipowner and Maritime Administration, IMCO Doc. REL 1/4, 3-4. See, also, the remarks of the French Commission of Inquiry into the Amoco Cadiz incident supra Note 219, Tome I at 144-145, Tome II at 30-32.

that have already been adopted but remain inoperative. Except in the vital area of manning, instead of adopting further instruments states should direct their efforts to implementation of existing ones. In this regard the emphasis within IMCO to encourage members to implement instruments even before their entry into force is encouraging.

It is significant to note that at practically every meeting of the IMCO Council, there is an item devoted to the status of IMCO conventions. This reflects the urgent need perceived within the Organization to bring into force existing conventions. It is submitted that it is in this area that future efforts must lie. One can do no better than to note the recent remarks of the Secretary General of IMCO to the effect that:

> There is general agreement that these measures (the two protocols and the convention on training and certification adopted in 1978), when fully and widely implemented, will make tankers safer and improve as well as tighten the controls on the operation of ships and their cargoes. This, in turn, will result in a reduction in the amount of

> oil which will enter the seas either as a result of accidents or through the routine operation of ships. But the success of these instruments, as of most international agreements, depends upon Governments: and the implementation and enforcement of the provisions can, in the final analysis, be assured only by the action of Governments and governmental agencies.[312]

It remains to say a word about flags of convenience. As noted at various points in this study, the major criticism of states offering such flags relates to the fact that in many instances they do not have the administrative machinery to control ships that are entitled to fly their flag. No doubt this criticism is still valid in some cases. However, it also applies to some flags that do not fall within the definition of a flag of convenience.

As to the future, a number of factors must be mentioned. First of all there is no doubt that flags of convenience are here to stay. Aside from the United States, they are increasingly attractive to shipowner in other high cost countries, for example,

[312]See Forward, The International Conference on Tanker Safety and Pollution Prevention, 1978, IMCO, 2, attached to IMCO Doc. Circular letter No.616. The need for implementation of adopted conventions has also been recognized by the European Community, see Action by the Commission of the European Communities concerning Shipping Safety and Pollution Prevention, Marine Environment Protection Committee, 11th Session, Agenda Item 3, IMCO Doc. MEPC XI/3/1, and Resolution of the European Parliament, Marine Environment Protection Committee, 11th Session, IMCO Doc. XI/INF.2.

West Germany and Japan.[313] Moreover, the use of these flags is not restricted to western countries. There is evidence that communist countries such as the Soviet Union and the Peoples Republic of China also find them useful.[314]

But there is also room to suppose that the significance of these flags in the years to come from the point of view of safety and protection of the marine environment is likely to decline. A number of factors can be cited in support of this proposition.

The new, emerging regime of the law of the sea, supplemented and expanded by the specific maritime conventions discussed in this study, vest increasing powers in port and coastal states to implement and enforce international regulations. As an increasing number of states participate in this new regime the importance of flag state control may decline.

There is already some indication of the possibilities for improved port state control in the expanded tanker boarding

[313] K. Grundy, supra Note 28, at 46.

[314] Ibid., at 18 where Grundy mentions the transfer of the mainland Chinese fleet from the Somali flag to the Panamanian flag. There is also mention of a large Soviet Panamanian fleet.

program introduced by the United States in 1977. The new attitude in the United States has implications for tanker safety in two respects. Firstly, the new and improved tanker boarding program will make itself increasingly felt in the world tanker fleet as more oil tankers call at U.S. ports in response to rising demand for off-shore oil in that country.

Secondly, since U.S. participation in convenience fleets is high, especially as far as the Liberian and Panamanian flags are concerned, there will be pressure to improve the reputation of these fleets andhence their safety record.[315]

Finally, in recent years a number of developments have taken place that are likely to have a bearing on tanker safety. In 1975 the 1969 Civil Liability Convention for Oil Pollution Damage, came into force.[316] This was followed by the entry into force in 1978 of the 1971 International Fund Convention.[317] That convention is particularly significant since it represents the cargo owners' (principally the large oil companies)

[315]In this respect, see the comments of K. Grundy, ibid., at 15-16, where he describes the pressure of the Liberian Shipping Council, composed of U.S. based international oil companies, as well as shipping companies from a number of leading maritime states, to improve the image of this flag by a better inspection service.

[316]Supra Note 155.

[317]Supra Note 177.

contribution to compensation for oil pollution damage. The International Fund operates on the basis of a call system i.e. contributions are only called for if and when the Fund is required to pay compensation.[318] With the liability of the oil companies engaged through the mechanism of the international Fund, oil companies are likely to be more discriminating in the choice of tankers to move their cargoes.[319]

In fairness to the states offering flags of convenience, account must also be taken of the effort in some countries, notably, Liberia, to improve the reputation of their fleet by the introduction of high standards and a better inspection service. Whether this has resulted in any positive results is open to some speculation.[320]

Another area of concern is the increasing efforts by certain third world countries to establish and maintain merchant fleets. If these fleets are to maintain high standards of safety they can only do so with assistance from the developed countries.

[318] Ibid., Article 10 & 12. For the basis of liability, see Article 4.

[319] Before entry into force of the 1971 Fund Convention, oil companies were already making a voluntary contribution through the mechanism of the Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution (CRISTAL).

[320] Donald Kerr Q.C., supra Note 17, at 95, for example suggests that improved standards in the Liberian fleet has resulted in the departure of significant tonnage from that fleet. K. Grundy, supra Note 28, casts doubt on the effect of the improved inspection service, at 37-40.

In this regard IMCO, as the coordinating agency for such assistance, acquires a new and vital role.

The work of improving tanker safety can never be completed. As in the air mode, regrettably, accidents will continue to occur, despite the adoption and enforcement of the highest standards. But, except for the problem of manning, the main emphasis in the years to come, it is suggested, must be on implementation of existing conventions. The totality of the provisions contained in the draft law of the sea treaty, as well as the 1973 MARPOL Convention and the 1974 SOLAS Convention, together with their 1978 amendments, provide states with important tools to control tankers. The will must now be found to use them.

Ottawa, July 31, 1979.

SELECTED BIBLIOGRAPHY

Abrahamsson, B.J., "The Marine Environment and Ocean Shipping: Some Implications for a new Law of the Sea", 31 International Organization, 1977, 291.

American Bar Association Section of International Law, "The United Nations Conference on the Law of the Sea", Panel Discussion, 12 International Lawyer, 1977, 21.

Anderson, A.W., "National and International Efforts to Prevent Traumatic Vessel Source Oil Pollution" 30 University of Miami Law Review, 1976, 985.

Archer, J.N., General Problems of Enforcement, Seminar on Tanker Safety and Pollution Prevention, London, October 16-17, 1978, IMCO Doc. TSPP/SEM/4.

Bess, D., Marine Transportation, Interstate, Printers and Publishers, Danville, Ill., Chapter 8, at 157.

Boczek, B.A., Flags of Convenience, Harvard University Press, Cambridge, Mass., 1962.

Buergenthal, T., Law-Making in the International Civil Aviation Organization, Procedural Aspects of International Law Series, Vol.7, Syracuse University Press, 1969.

Canada

Arctic Shipping Pollution Prevention Regulations, Canada Gazette, Part II, Vol.106 No. 20, SOR/72-426.

Arctic Waters Pollution Prevention Act, Revised Statutes of Canada, 1970, 1st Supp. c.1.

Arctic Waters Pollution Prevention Regulations, Canada Gazette, Part II, Vol. 106, No. 14, SOR/72-253.

Canada Shipping Act, Revised Statutes of Canada, 1970, c S-9, and 2nd Supp., c.27.

Maritime Code Act, 26-27 Elizabeth II, c.41, Canada Gazette, Part III, Vol.3, No. 6.

Royal Commission, Pollution of Canadian Waters by Oil and Formal Investigation into the Grounding of the Steam Tanker "Arrow", Final Report.

Canada Cont'd.
Ship's Deck Watch Regulations, Canada Gazette, Part II, Vol.110 No. 12, SOR/76-374.

West Coast Oil Ports Inquiry, A Public Inquiry, Proceedings at Inquiry.

West Coast Oil Ports Inquiry, A Public Inquiry, Statement of Proceedings.

Colombos, C., International Law of the Sea, Longmans, London, 4th Revised Edition, 1959.

Cowen, E., Oil and Water, The Torrey Canyon Disaster, Lippencott, Philadelphia, 1968.

Dickey, L.M., "Freedom of the Seas and the Law of the Sea: Is What's New for Better or Worse" 5 Ocean Development and International Law Journal, 1978, 23.

Doganis, R.S., & Metaxas, B.N., The Impact of Flags of Convenience, Transport Studies Group, Research Report 3, Polytechnic of Central London, 1977.

Drewry, H.P., (Shipping Consultants) World Shipping Under Flags of Convenience, July 1975, No. 37.

du Pontavice, M.E., "Les pavillons de complaisance", 29 Droit Maritime Français (1977) at 504 and 568.

Dupuy, R.J., "L'inspection internationales des navires", Quinze Etudes de la Pratique des Etats, G. Fisher and D. Vignes, Brussels, 1976, 249.

Emanuelli, C., "La pollution maritime et la notion de passage inoffensif" 11 Canadian Yearbook of International Law, 13.

Emanuelli, C.C., "The Right of Intervention of Coastal States on the High Seas in Cases of Pollution Casualties", 24/25 University of New Brunswick Law Journal, 1973, 79.

France
"Commission d'Enquête créé à la suite du naufrage d'un navire pétrolier sur les côtes de Bretagne", Rapport, No. 665, Assembleé Nationale, Sixième Legislature, Première Session, 1978-79, Journal officiel, November 14, 1978.

Gidel, G., Le Droit International Public de la Mer, Vol.1 & 3, Mellottée, Chateauroux, 1932.

Goldie, L.F.E., "Recognition and Dual Nationality - A Problem of Flags of Convenience", British Yearbook of International Law, 1963, Part III, 220.

Greenberg, E.V., "IMCO: an Environmentalist's Perspective", 8 Case Western Reserve Journal of International Law, 1976, 131.

Grotius, De Jure Praedae, Williams trans., 1950, ch.XII.

Grundy, K., Flags of Convenience in 1978, Transport Studies Group, Discussion Paper No 8, Polytechnic of Central London, 1978.

Herman, L.L., "Flags of Convenience - A New Dimension to an Old Problem", 24 McGill Law Journal, 1978, 1.

Hunter, F.D. & Flannigan, J.V., "Environmental Heritage of the Argo Merchant", 7 British Columbia Environmental Affairs Law Review, 1978, 1.

Inter-Governmental Maritime Consultative Organization (IMCO) Ad Hoc Working Group on the Relationship Between Shipmaster, Shipowner and Maritime Administration, Report to Council, 1st Session, IMCO Doc. REL I/4, (1978).

Assembly, Amendment Procedures in Conventions for which IMCO in Depositary, 7th Session, IMCO Doc. A.VII/12 (1971).

Assembly Resolution, Acceptance of Duties under the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, IMCO Doc. A.8(I), (1959).

Assembly Resolution, Marine Pollution, IMCO Doc. A.176(VI) (1969).

Assembly Resolution, Code of Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk, IMCO Doc. A.212(VII) (1971).

Assembly Resolution, Amendments to the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, IMCO Doc. A.246(VII) (1971).

Assembly Resolution, Amendment Procedures in Conventions for which IMCO is Depositary, IMCO Doc. A.249(VII) (1971)

Inter-Governmental Maritime Consultative Organization Cont'd.
Assembly Resolution, Amendments to the IMCO Convention, IMCO Doc. A.315 (ESV), (1974).

Assembly Resolution, Code for the Construction and Equipment of Ships carrying Liquified Gas in Bulk, IMCO Doc. A.328 (IX) (1975).

Assembly Resolution, Amendments to IMCO Convention, IMCO Doc. A.358 (IX) (1975).

Assembly Resolution, Procedures for the Control of Discharges under the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, IMCO Doc. A.X/Res.391(1977).

Council, Conclusions of the Council on the Action to be taken on Problems brought to light by the Loss of the Torrey Canyon, 3rd Extraordinary Session, Agenda Item 3, IMCO Doc. c/ES III/5 (1967).

Legal Committee, Report of the Legal Committee on the work of the 14th Session, paragraphs 1-37, IMCO Doc. LEG XIV/4 (1972).

Legal Committee, Report of the Legal Committee on Work of the 35th Session, paragraphs 40-68, IMCO Doc. LEG XXXV/4 (1978).

Legal Committee, Report of the Legal Committee on the Work of 37th Session, paragraphs 6-51, IMCO Doc. LEG XXXVII/7 (1978).

Legal Committee, Coastal State Protection Against Major Maritime Disasters, A Secretariat Study, 38th Session, IMCO Doc. LEG XXXVII/2 (1978).

Legal Committee, Report of the Legal Committee on Work of the 38th Session, paragraphs 102-107, IMCO Doc. LEG XXXIII/5 (1979).

Legal Committee, Report of the Legal Committee on the Work of the 40th Session, paragraphs 6-46, IMCO Doc. LEG XL/5 (1979).

Legal Committee, Proposal by the French Government for Amendment of the Convention on International Regulations for Preventing Collisions at Sea, 40th Session, Agenda Item 4, IMCO Doc. LEG XL/4 (1979).

Marine Environment Protection Committee, Reports on Prosecutions for Contraventions of the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, IMCO Doc. MEPC/CIRC.17 (1975).

Inter-Governmental Maritime Consultative Organization Cont'd.
Marine Environment Protection Committee, Reports on Prosecutions for Contraventions of the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, IMCO Doc. MEPC/CIRC.28 (1975).

Marine Environment Protection Committee, Reports on Prosecutions for Contravention of the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, IMCO Doc. MEPC/CIRC.30 (1976).

Marine Environment Protection Committee, International Convention for the Prevention of Oil Pollution, Reports on Prosecutions, IMCO Doc. MEPC/CIRC.58 (1978).

Marine Environment Protection Committee, Enforcement of Pollution Conventions, 10th Session, Agenda Item 13, IMCO Doc. MEPC X/13/1-7 (1978).

Marine Environment Protection Committee, Report by U.K. Department of Trade, 10th Session, IMCO Doc. MEPC X/INF.7 (1978).

Marine Environment Protection Committee, Status of International Conventions, 11th Session, IMCO Doc. MEPC XI/2 (1979).

Marine Environment Protection Committee, Action by the Commission of the European Communities concerning Shipping Safety and Pollution Prevention, IMCO Doc. MEPC XI/3/1 (1979).

Marine Environment Protection Committee, Resolution of the European Parliament, 11th Session, IMCO Doc. MEPC XI/INF.2 (1979).

Marine Environment Protection Committee, Work Program of IMCO in the Field of Marine Environment Protection, 11th Session, IMCO Doc. XI/INF.4 (1979).

Maritime Safety Committee, Report of Ad Hoc Working Group on Amendment Procedures to Conventions, 25th Session, IMCO Doc. MSC XXV/6 (1972).

Maritime Safety Committee, Draft Resolution, 33rd Session, IMCO Doc. XXXIII/12 (1971).

Maritime Safety Committee, Note by the Government of the United States, 36th Session, IMCO Doc. MSC XXXVI/20/3 (1977).

Inter-Governmental Maritime Consultative Organization Cont'd.
Maritime Safety Committee, Status of IMCO Conventions and all Conventions and Acts of which IMCO is a Depositary, 39th Session, IMCO Doc. MSC XXXIX/3 (1979).

Maritime Safety Committee/Marine Environment Protection Committee, Report of Joint MSC/MEPC Meeting, IMCO Doc. MSC/MEPC/10 (1977).

Status of Multilateral Conventions and Instruments in respect of which the Inter-Governmental Maritime Consultative Organization or its Secretary General Perform Depositary or other Functions, IMCO Doc. MISC(79)2E (1979).

Sub-Committee on Standards of Training and Watchkeeping, Report to Maritime Safety Committee, 10th Session, IMCO Doc. STW X/7 (1978).

Report of the Symposium on Prevention of Marine Pollution from Ships, Acapulco, Mexico, 22-31 March, 1976, IMCO, London, 1976.

Tanker Casualties Report, Analysis of Serious Casualties to Ocean-going Tankers, 1968-1977, IMCO, London, 1978.

International Conference on Collision at Sea, 1972,
Proposal submitted by the Canadian and United States Delegations, CR/CONF/WP.16.

Proposal submitted by the Canadian and United States Delegations, CR/CONF/WP.16 Rev.1.

Proposal by Canadian Delegation, CR/CONF/C.2/WP.13.

International Conference on Marine Pollution, 1973,
Statement by Canada in relation to Article 9, MP/CONF/WP.34.

International Conference on Training and Certification of Seafarers, 1978,
International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, STW/CONF/13.

General Provisions, Chapter I, STW/CONF/14.

Master-Deck Department, Chapter II, STW/CONF/15.

Engine Department, Chapter III, STW/CONF/16.

Radio Department, Chapter IV, STW/CONF/17.

International Conference on Training and Certification of Seafarers, 1978, Cont'd.
Special Requirements for Tankers, Chapter V, STW/CONF/18.

Proficiency in Survival Craft, Chapter VI, STW/CONF/19.

Resolutions of the Conference, STW/CONF/20.

International Conference on Tanker Safety and Pollution Prevention, 1973,
Protocol of 1978 Relating to the International Convention for the Safety of Life at Sea, TSPP/CONF/10.

Modifications and Additions to the International Convention for the Safety of Life at Sea, 1974, TSPP/CONF/10/Add.1.

Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, TSPP/CONF/11.

Annex, Modification and Additions to the International Convention for the Prevention of Pollution from Ships, 1973, TSPP/CONF/11/Add.1.

Resolutions of Conference, TSPP/CONF/12.

International Convention on Civil Aviation ("Chicago Convention"), 1947, 15 United Nations Treaty Series 295.

International Convention on Civil Liability of Shipowners for Oil Pollution Damage, 1969, British Treaty Series 1975/106.

International Convention on the High Seas, 1958, 450 United Nations Treaty Series 11.

International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971, British Treaty Series 1978/95.

International Convention on International Regulations for Preventing Collisions at Sea, 1972, British Treaty Series, 1977/77.

International Convention on Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969, British Treaty Series 1975/77.

International Convention on the Intergovernmental Maritime Consultative Organization, 1948, 289 United Nations Treaty Series 3.

International Convention on Load Lines, 1966, 640 United Nations Treaty Series 133.

International Convention for the Prevention of Pollution from Ships, 1973, reproduced in 12 International Legal Materials 1319 (1973).

International Convention for the Prevention of Pollution of the Sea by Oil, 1954, 327 United Nations Treaty Series 3, as amended in 1962, 640 United Nations Treaty Series 332 and 1969, amendment reproduced in 9 International Legal Materials 1, 1970.

International Convention for the Safety of Life at Sea, 1960, 563 United Nations Treaty Series 27.

International Convention for the Safety of Life at Sea, 1974, reproduced in 14 International Legal Materials 959 (1974).

International Court of Justice,
Corfu Channel Case, 1949, International Court of Justice Reports, 4.

Constitution of the Maritime Safety Committee of the Inter-Governmental Consultative Organization, Advisory Opinion, 1960 International Court of Justice Reports, 150.

Constitution of the Maritime Safety Committee of the Inter-Governmental Maritime Consultative Organization, Pleadings, Oral Arguments, Documents, 1960.

Nottebohm Case (Lichtenstein v Guatamela) 1955 International Court of Justice, 4.

International Labour Organization,
Convention concerning Minimum Requirements of Professional Capacity of Masters and Officers on Board Merchant Ships, Convention No. 53, 40 United Nations Treaty Series, 153.

Convention concerning Certification of Able Seaman, Convention No. 74, 94 United Nations Treaty Series, 11.

Convention concerning Minimum Standards on Merchants Ships, Convention No. 147, reproduced in 15 International Legal Materials 1288 (1976).

Flag Transfer in relation to Special Conditions and Safety, International Labour Conference, 41st Session, 1958, Report IV.

International Law Commission, Report, 8th Session, 1956.

Jessup, P.C., The Law of Territorial Waters and Maritime Jurisdiction, G.A. Jennings & Co., New York, 1927.

Johnson, K.E., "Prevention of Operational Maritime Oil Pollution: A Necessary Solution to an Unnecessary Problem", 4 Brooklyn Journal of International Law, 1977, 63.

Juda, L., "IMCO and Regulation of Ocean Pollution from Ships", 26 International and Comparative Law Quarterly, 1977, 558.

Kronfol, Z., "The Exclusive Economic Zone: A Critique of Contemporary Law of the Sea", 9 Journal of Maritime Law and Commerce, 1977-78, 461.

Lapidoth, R., "Freedom of Navigation - Its Legal History and Its Normative Basis", 6 Journal of Maritime Law and Commerce, 1974, 259.

Legault, L., "The Freedom of the Seas: A Licence to Pollute", 21 University of Toronto Law Journal, 1971, 210.

Liberia, Bureau of Maritime Affairs, Interim Report of the Formal Investigation by the Marine Board of Investigation into the Loss and Grounding of the VLCC Amoco Cadiz, Monrovia, February 23, 1979.

Lowe, A.V., "Enforcement of Marine Pollution Regulations", 12 San Diego Law Review, 1975, 624.

Lowe, A.V., "Right of Entry into Maritime Ports in International Law", 14 San Diego Law Review, 1977, 597.

Marston, G., "International Conventions on Ship-based Pollution", 10 Journal of World Trade Law, 1976, 389.

M'Conigle R.M., & Zacher, M.W., Canadian Foreign Policy and Control of Marine Pollution, University of British Columbia Press, Vancouver, 1978.

McDougal & Burke, "The Public Order of the Oceans", Yale University Press, New Haven, 1962.

McDougal, Burke & Vlasic, "The Maintenance of Public Order at Sea and the Nationality of Ships", 54 American Journal of International Law, 1960, 24.

Mensah, T., "International Environment Law: International Conventions concerning Oil Pollution at Sea", 8 Case Western Reserve Journal of International Law, 1976, 110.

Meyers, H., & Johnson, D.H.N., The Nationality of Ships, Martinus Nijhoff, The Hague, 1967.

Mostert, N. Supership, Alfred A. Knope, New York, 1974.

National Labour Relations Board (U.S.), West India Fruit and Steamship Co. (1961), 130 N.L.R.B. 343.

New Directions in Maritime Law, Dalhousie Continuing Education Series, 1978, No. 18.

Organization of Economic Co-operation and Development (OECD), "Study on Flags of Convenience", reproduced in 4 Journal of Maritime Law and Commerce, 1973, 231.

Oppenheim, International Law, Edited by Lauterpacht, 8th Edition, Vol.II.

Permanent Court of Arbitration, The Muscat Dhows Case between France and Great Britain, The Hague Court Reports, Edited by J.B. Scott, Oxford University, New York, 1916.

Permanent Court of International Justice, The Case of the S.S. "Lotus", 12th (Ordinary) Session, Judgement 9, September 1927.

Pharand, D., The Law of the Sea of the Arctic, University of Ottawa Press, Ottawa, 1973.

Phillips, J.C., "The Exclusive Economic Zone as a Concept of International Law", 26 International and Comparative Law Quarterly, 1977, 585.

Pinto, R., Flags of Convenience, 87 Journal du Droit International, at 344 (1960).

Potter, J., Disaster by Oil, MacMillan Company, New York, 1973.

Rich, R., "Flag of Convenience - or Necessity", 10 Oceans, 1977, 1.

Rienow, R., The Test of Nationality of Ships, Columbia University Press, 1934.

Sasamura, Y., Environmental Impact of the Transportation of Oil, IMCO, 1977.

Sasamura, Y., Outcome of the International Conference on Tanker Safety and Pollution Prevention, Seminar on Tanker Safety and Pollution Prevention, London, October 16-17, 1978, IMCO Doc. TSPP/SEM/1.

Shelton, D., & Rose, G., "Freedom of Navigation: The Emerging International Regime", 17 Santa Clara Law Rev., 1977, 523.

Shils, R.B., & Millar, S.L., "Foreign Flags on U.S. Ships: Convenience or Necessity", Industrial Relations, May 1963, 131.

Shin, R.A., The International Politics of Marine Pollution, Praeger Publishers, 1974.

Singh, N., International Conventions on Merchant Shipping, Stevens, London, 1963, Vol.8.

Singh, N., Maritime Flag and International Law, Sijhoff, Leyden, 1978.

Srivastava, C.P., "The Inter-Governmental Maritime Consultative Organization", 29 Journal of Navigation, 1976, 307.

Stanford, G.B., "Canadian Perspectives on the Future Enforcement of the Exclusive Economic Zone: A Paper in Diplomacy and Law of the Sea", 5 Dalhousie L.J., 1979, 73.

Stevens, T., & Perles S.R., "Tanker Safety Incentive: A Legislative Proposal" 19 William and Mary Law Review, 1977, 99.

Thomas, J.E.A.C., The Role of International Organizations in the Light of a New Law of the Sea Convention, A Research Essay, Norman Paterson School of International Affairs, Carleton University, Ottawa, 1977.

United Kingdom
Secretary of State for the Home Department, Coastal Pollution, Observations and the Report of the Select Committee on Science and Technology, Comnd 388 (1969).

Committee of Inquiry into Shipping, (Rochdale Inquiry), Report, H.M.S.O., 1970.

United Nations Conference on Trade and Development (UNCTAD), Report of the UNCTAD Secretariat, UNCTAD Doc. TB/B/C.4(168) (1977).

United Nations, General Assembly, 1956/57, Official Records, Volume 11, Agenda Item 5, Annexes.

Ships' Routing, IMCO, London, Third Edition, 1973.

United Nations,
Third United Nations Conference on the Law of the Sea, Informal Composite Negotiating Text, A/CONF.62 WP.10 (1977).

Third United Nations Conference on the Law of the Sea, Informal Composite Negotiating Text, A/CONF.62 WP.10 Rev.1 (1979).

United Nations Cont'd.
Third United Nations Conference on the Law of the Sea, Results of Negotiations on Part XII during Seventh Session, Third Committee, (Informal Meeting) MP/24 (May 15, 1978).

United States
Recent Tanker Accidents, U.S. Senate Commerce Committee, 95th Congress, 1st Session, 1 (1977).

Ports and Waterways Safety and Protection of the Environment Act, 1978 Public Law 95-474.

United States Supreme Court,
Benz v Compania Naviera Hidalgo (1957) 353 U.S. 138.

Incres Steamship Co. v International Maritime Workers Union, (1963) 372 U.S. 24

Lauritzen v Larsen, (1953) 345 U.S. 573.

Mali v Wildenhus (1886) 120 U.S. 1.

McCulloch v Sociebad Nacional de Marineros de Honduras, (1963) 372 U.S. 10.

Romeno v International Terminal Operating Co., (1959) 358 U.S. 354.

Utton, A.E., "Protective Measures and the Torrey Canyon", 9 Boston College Industrial and Commercial Law Review, 1968, 613.

Vinar, B., Effect of the "Genuine Link" Principle of 1958 Geneva Convention on the National Character of a Ship, 35 New York University Law Review, 1960, 1049.

Wittig, E.A., "Tanker Fleets and Flags of Convenience: advantages, problems and dangers", 14 Texas International Law Journal, 1979, 115.

Who Protects the Oceans, Edited by J.L. Hargrove, American Society of International Law, West Publishing Co., St. Paul, Minn., 1975.

Wulf, N.A., "Contiguous Zones for Pollution Control an Appraisal under International Law" 3 Journal of Maritime Law and Commerce, 1972, 54.

Yemin, E., Legislative Powers in the United Nations and Specialized Agencies, A.W. Sijthoff - Leyden, 1969.