Marine Safety and Pollution Prevention: The Role of the Port State

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MARINE SAFETY AND POLLUTION PREVENTION: THE ROLE OF THE PORT STATE

By

Jonathan Douglas Sarubbi

Major paper submitted in partial fulfillment of the requirements for the degree of Master of Marine Affairs

University of Rhode Island
1993
TABLE OF CONTENTS

| Chapter 1 | INTRODUCTION. | 1 |
| Chapter 2 | THE FLAG STATE ENFORCEMENT REGIME. | 5 |
| 2.1 | Introduction | 5 |
| 2.2 | Development of International Maritime Safety and Pollution Prevention Treaties | 5 |
| 2.3 | Flag State Compliance | 9 |
| 2.3.1 | Substandard Flags | 10 |
| 2.4 | Open Registries | 13 |
| 2.4.1 | Defined | 13 |
| 2.4.2 | Beneficial Ownership | 16 |
| 2.4.3 | Fleet Losses | 19 |
| 2.4.4 | Reliability | 22 |
| 2.4.5 | Capabilities | 23 |
| 2.5 | Conclusions | 26 |
| Chapter 3 | PORT STATE CONTROL OVER SUBSTANDARD VESSELS | 27 |
| 3.1 | Port State Control | 27 |
| 3.1.1 | Inspection | 29 |
| 3.1.2 | Manning | 32 |
| 3.1.3 | Operational Control | 33 |
| 3.1.4 | Non-Convention ships | 35 |
| 3.1.5 | Detention | 35 |
| 3.1.6 | Reporting | 36 |
| 3.1.7 | Reports to IMO | 37 |
| 3.2 | Regional Port State Control Efforts | 39 |
| 3.2.1 | Paris Memorandum of Understanding | 39 |
| 3.2.2 | Organization | 40 |
| 3.2.3 | Inspection | 42 |
| 3.2.4 | Other Regional Efforts | 43 |
| 3.3 | Analysis | 44 |
| Chapter 4 | PORT STATE CONTROL OVER VESSEL-SOURCE POLLUTION | 47 |
| 4.1 | Introduction | 47 |
| 4.1.1 | Traditional Jurisdictional | 49 |
| 4.1.2 | Expansion of Coastal State Jurisdiction | 51 |
| 4.2 | Development of the Port State Regime | 52 |
| 4.2.1 | OILPOL 54/69 | 52 |
| 4.2.2 | MARPOL 73/78 | 55 |
LIST OF TABLES

Tables
1 Status of selected IMO Conventions ................. 7
2 Flag States with higher than average Paris MOU delay/detention rates ................. 11
3 Major open registry fleets ..................... 14
4 True nationality of major open registry fleets ..................... 18
5 A comparison of open registry and regulated fleet gross tonnage losses ..................... 21
6 Countries with the highest vessel and gross tonnage losses between 1986-1991 ..................... 21

LIST OF FIGURES

Figures
1 The national and foreign fleets of the ten most important maritime countries ............. 17
2 Number of merchant vessels lost 1970-1991 ............. 20
3 Paris MOU boarding data 1989-1991 ............. 41
CHAPTER 1 INTRODUCTION

Historically, the flag State has enjoyed the exclusive right to prescribe and enforce safety of life at sea and pollution prevention standards aboard its vessels on the high seas. In recent years, however, the exclusive and all-encompassing jurisdiction of the flag State has come under review. A large number of vessel casualties and pollution incidents have revealed that some flag States, particularly flag of convenience or open registry States, fail to implement or enforce international safety of life at sea or pollution prevention standards for a variety of reasons. Some States lack the resources, finances, or infrastructure to operate an effective maritime administration, while other States lack the will to implement or enforce international standards.

Beginning in the 1970s, the International Maritime Organization (IMO) undertook a number of initiatives to improve flag State compliance with international maritime safety and pollution control standards. Among the initiatives the IMO implemented was the concept of port State control. Under this concept, the port State may inspect, detain, and, in certain cases, penalize foreign-flag vessels

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1 The flag State is the State of a vessel's registry. When a vessel is navigating within the jurisdiction of another State, that State has concurrent jurisdiction over the vessel. R. Legatski, "Port State Jurisdiction Over Vessel-Source Marine Pollution," 2 Harvard Environmental Law Review (1977), p. 25.

2 The port State is a state that claims jurisdiction over a vessel in its ports, internal waters, or offshore terminals.
operating within its ports, internal waters, and offshore terminals for violations of international standards relating to (1) vessel design, construction, equipment, and manning standards, (2) alleged discharge of pollutants, and (3) on board working conditions. The concept is embodied in the following IMO conventions:

(1) Regulation 19 of Chapter 1 of the 1974 Safety of Life at Sea Convention, as amended in 1978 (SOLAS 74/78);^5

(2) Article 21 of the 1966 Load Line Convention (LLC 66);^6

(3) Articles 5 and 6 of the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 (MARPOL 73/78);^7

(4) Article X of the Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW 78).^8

The 1982 United Nations Convention on the Law of the Sea further expanded the enforcement role of the port State with

5 Internal waters are inland waters landward of the baseline from which the territorial sea is measured. They include ports, rivers, and meeting certain requirements bays. See articles 8, 9, 10, and 11 of the 1982 Convention on the Law of the Sea.

4 The International Labor Organization Convention Concerning Minimum Standards in Merchant Shipping, No. 147 (ILO 147), sets competency standards, work hours, manning, shipboard employment conditions, and living conditions. Under article 4 of the convention, the port State may board a foreign-flag vessel to investigate complaints related to on board working conditions, crew health, safety, and welfare, among other things. This topic will not be examined in this paper. For additional information on this subject see E. Osieke. "The International Labour Organisation and the Control of Substandard Merchant Vessels." 30 International and Comparative Law Quarterly 497-512 (1981).

6 SOLAS 74/78, 17 ILM 579. SOLAS contains technical standards for safety surveys and certificates; subdivision and stability; machinery and electrical installations; fire protection, detection, and extinction; life-saving appliances; radiotelegraphy and radiotelephone; safety of navigation; carriage of grain and dangerous goods.

7 LLC 66, 640 UNTS 133. LLC contains standards for freeboard and load line assignment as well as standards for vessel strength and stability.

8 MARPOL 73/78, 12 ILM 1319 (1973), with Protocol 17 ILM 546 (1978). MARPOL 73/78 contains design, construction, equipment, and discharge standards for vessels carrying oil, noxious liquid substances, sewage and garbage.

9 STCW 78. STCW sets forth minimum standards for crew qualifications, persons in charge of navigational watches, engineering watches, and radio watch-keeping and maintenance, and sets out special requirements for personnel on tankers and standards for proficiency in survival craft.

respect to the control of vessel-source pollution, extending port State enforcement competence to the high seas and the jurisdictional zones of other states. The expansion of port State enforcement jurisdiction resulted from a compromise between coastal States, who demanded protection from environmental harm, and maritime States, who resisted attempts to impede freedom of navigation.

Traditionally, coastal State\textsuperscript{10} competence to prescribe and enforce pollution control standards aboard foreign-flag vessel was limited to the territorial sea. Beyond the territorial sea (the high seas) the flag State enjoyed exclusive jurisdiction to prescribe and enforce such standards aboard its vessels. However, a number of major vessel related pollution incidents in the late 1960s and early 1970s demonstrated that sole reliance on flag State jurisdiction would not reduce vessel-source pollution or protect coastal States from environmental harm. Frustrated by the inability to protect their coastal environment from vessel-source pollution, coastal States demanded the power to prescribe and enforce pollution control standards aboard foreign-flag vessels operating beyond their territorial seas.

In recent years, at least two dramatic changes have taken place. First, a majority of coastal States extended the geographic limits of their jurisdiction. The most important geographic changes include the extension of the territorial sea limits from three miles to twelve miles, and the

\textsuperscript{10} The coastal State is a state that claims jurisdiction over a foreign vessel passing through waters which it claims jurisdiction. These waters include the territorial sea and the Exclusive Economic Zone.
establishment of an Exclusive Economic Zone (EEZ), a zone extending 200 miles from the shoreline. Second, the MARPOL 73/78 and the 1982 Convention on the Law of the Sea granted States certain new powers to prescribe and enforce vessel-source pollution control standards, dividing such powers among the port State, the coastal State, and the flag State. To appease fears that freedom of navigation would be impeded if coastal States were given unrestricted authority to stop and board vessels at sea, port States were granted the competence to board vessels within their ports, internal waters, and offshore terminals to investigate and prosecute violations of international pollution control standards occurring on the high seas and the jurisdictional zones of other States.

This paper will examine the evolving role of the port State with regard to the enforcement of international safety of life at sea and pollution control standards and its effect on improving maritime safety and reducing vessel-source pollution. Chapter 2 will analyze the flag State enforcement regime, with particular emphasis on flags of convenience or open registries countries demonstrating the inadequacy of flag State enforcement and the need for port State control. Chapter 3 will examine the concept and legal requirements of the port State control regime. Chapter 4 will focus on the role of the port State with respect to the control of vessel-source pollution. Finally, Chapter 5 will provide a summary conclusion as to the adequacy and problems of the port State regime.
CHAPTER 2 THE FLAG STATE REGIME

2.1 INTRODUCTION
It can be said that the emergence of the port State enforcement regime occurred as a direct result of the failure of certain flag States to maintain effective control over their vessels. Although international law mandates that flag States implement and enforce maritime safety and pollution prevention standards aboard their vessels, many open registry countries frequently fail to do so. As a result, their fleets generally contain a disproportionately high number of substandard vessels. This chapter will examine the flag State enforcement regime and its failings, with special emphasis on open registries.

2.2 DEVELOPMENT OF INTERNATIONAL MARITIME SAFETY AND POLLUTION PREVENTION TREATIES
International safety and pollution prevention instruments establish globally accepted minimum standards. Among other things, such standards ensure that ship operators and crews are not subjected to a multitude of varying (and possibly conflicting) national laws and regulations. Moreover, they ensure fair competition in the international market. National standards that exceed international design, equipment, or manning standards increase the cost of building or operating a vessel, placing those vessels that must comply
with the additional standards at an economic disadvantage with those vessels that do not have to comply with such standards.

International maritime safety and pollution prevention conventions are developed under the auspices of the IMO, a specialized agency of the United Nations. Since January 1959, the IMO has concluded nearly 30 conventions and protocols, numerous codes, and hundreds of resolutions relating to safety of life at sea and pollution control. Headquartered in London, the organization presently has 135 member countries and two associate member countries. It is governed by an Assembly that meets once every two years. A Secretary General and a Council, made up of 32 member governments elected for two-year terms, oversee the organization's daily operations. Five committees and numerous subcommittees carry out the technical work of the IMO. The Maritime Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC) perform the bulk of work relating to safety of life at sea and environmental protection.

Developing international agreements generally involves achieving a broad consensus among many nations with varying industrial development, technical capabilities, resources, and environmental consciousness or concern. For example, representatives from 90 states attended the conference negotiating the International Convention of Oil Pollution...
### Table 1

Status of selected IMO Conventions  
As of April 1991

<table>
<thead>
<tr>
<th>Convention</th>
<th>Date of entry into force</th>
<th>No. of parties</th>
<th>% of world fleet</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLAS 1974</td>
<td>25 May 1980</td>
<td>111</td>
<td>97.14</td>
</tr>
<tr>
<td>SOLAS Protocol</td>
<td>1 May 1981</td>
<td>72</td>
<td>91.15</td>
</tr>
<tr>
<td>COLREGS 72</td>
<td>15 July 1977</td>
<td>107</td>
<td>96.00</td>
</tr>
<tr>
<td>Load Lines 1966</td>
<td>21 July 1968</td>
<td>117</td>
<td>98.13</td>
</tr>
<tr>
<td>International Tonnage Convention</td>
<td>18 July 1982</td>
<td>90</td>
<td>96.55</td>
</tr>
<tr>
<td>STCW 78</td>
<td>28 April 1984</td>
<td>81</td>
<td>77.10</td>
</tr>
<tr>
<td>MARPOL 73/78</td>
<td>10 Oct. 1983</td>
<td>64</td>
<td>88.19</td>
</tr>
<tr>
<td>Annex III</td>
<td></td>
<td>43</td>
<td>47.82</td>
</tr>
<tr>
<td>Annex IV</td>
<td></td>
<td>37</td>
<td>38.09</td>
</tr>
<tr>
<td>Annex V</td>
<td>31 Dec. 1988</td>
<td>49</td>
<td>64.78</td>
</tr>
<tr>
<td>International Intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convention, 1969</td>
<td>6 May 1975</td>
<td>57</td>
<td>68.67</td>
</tr>
<tr>
<td>International Dumping Convention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convention 1972 (LDC)</td>
<td>30 Aug. 1975</td>
<td>63</td>
<td>63.07</td>
</tr>
</tbody>
</table>

Source: United Nations Conference on Trade and Development (UNCTAD)  
Review of Maritime Transport 1990
Preparedness, Response, and Cooperation. The convention-making process involves four stages: (1) negotiation; (2) provisional acceptance; (3) final acceptance - ratification; and (4) entry into force. Once the text of a treaty has been negotiated, the text is presented to the IMO assembly for adoption. Following the Assembly’s approval, the instrument is then presented at a conference (open to delegations from United Nations member States) for adoption and signature. Following this stage, the Convention is presented to individual governments for ratification. For example, in the United States a convention must receive the “advice and consent” of two-thirds of the Senate and the approval of the President. Ratification signifies a nation’s formal approval. A State that accepts or ratifies an international is legally bound to implement and enforce its standards. In certain cases, a state must enact implementing legislation before a convention becomes effective domestically.

A convention enters into force when a certain number of nations have ratified the agreement, usually specified in the agreement’s text. For example, Article 15 of the MARPOL 73/78 states:

“The present Convention shall enter into force twelve months after the date on which not less than 15 States, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world’s merchant shipping, have become parties to it ...”

---

13 On this point see G. von Glahn, supra note 12, p. 568.
2.3 FLAG STATE COMPLIANCE

Every State has the right to sail ships flying its flag on the high seas. Under international law, a state exercising this right must exercise appropriate control and jurisdiction over its ships. This is accomplished, in part, by ensuring that they are designed, constructed, equipped, maintained, manned, and operated in accordance with internationally accepted standards. Further, the flag State is responsible for the training and certification of officers and crews, the investigation of accidents, and the prosecution of violations of national and international regulations and standards.

To fulfill its obligations, a State must establish an effective maritime safety program, which should include: (1) a properly organized maritime safety administration, staffed by trained personnel; (2) administrative regulations that implement the relevant IMO conventions; (3) an inspection program with an adequate number of trained and experienced inspectors; and (3) facilities for training, educating, and certifying its seamen. Flag States that do not have established maritime safety programs cannot carry out their obligations under international law.

Recently, the IMO identified four reasons why flag States

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15 Ibid, Convention on the High Seas, article 10. Also, the 1982 UN Convention on the Law of the Sea, article 94.
16 Ibid.
typically fail to exercise control over their vessels:

(1) "they lack an sufficient number of trained and experienced technical personnel;

(2) they lack sufficient infrastructure to properly interpret and support application and enforcement of international conventions;

(3) there is unclear delegation of authority and regulatory oversight when inspections and surveys are entrusted either to surveyors nominated for that purpose or to Organizations recognized by the Administration or the employment of insufficiently qualified and experienced surveyors under such arrangements;

(4) there is an absence of effective control or oversight programs to ensure that consistent and competent maritime safety actions are taken."\(^{18}\)

2.3.1 SUBSTANDARD FLAGS
The vast majority of open registry countries and developing countries have accepted or ratified key IMO instruments (i.e., SOLAS, LLCA, MARPOL).\(^ {19}\) However, because these flag categories often lack, maritime expertise, finances, skilled personnel, technology, and infrastructure, they frequently fail to exercise control over their vessels, although there are some exceptions. Consequently, vessels registered under these flag categories are more likely to be substandard.\(^ {20}\)

An analysis of 1989-1991 Paris MOU inspection data seems to support this hypothesis. The data reveal that vessels

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\(^{18}\) "Report of the 59th Session of the Maritime Safety Committee." MSC 59/33, p. 84.


### Table 2\textsuperscript{21}

Flag States with higher than average delay/detention rates 1989-1991, expressed as a percentage.

<table>
<thead>
<tr>
<th>Flag</th>
<th>1991</th>
<th>1990</th>
<th>1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>% average</td>
<td>% average</td>
<td>% average</td>
<td></td>
</tr>
<tr>
<td>of vsls. detain.</td>
<td>of vsls. detain.</td>
<td>of vsls. detain.</td>
<td></td>
</tr>
<tr>
<td>Flag detain.</td>
<td>Flag detain.</td>
<td>Flag detain.</td>
<td></td>
</tr>
</tbody>
</table>

| Romania | 22.95 5.20 | Morocco | 22.73 4.48 | Honduras | 24.00 3.75 |
| St. Vincent | St. Vincent | St. Vincent | |
| & Grenadines | 16.17 5.20 | & Grenadines | 16.79 4.48 | Grenadines | 22.32 3.75 |
| Malta | 15.99 5.20 | Honduras | 16.26 4.48 | Brazil | 17.86 3.75 |
| Iran | 12.50 5.20 | Malta | 15.33 4.48 | Iran | 13.64 3.75 |
| Lebanon | 12.00 5.20 | Romania | 14.41 4.48 | Egypt | 11.54 3.75 |
| Honduras | 11.76 5.20 | Egypt | 12.96 4.48 | Malta | 10.73 3.75 |
| Syrian Arab Republic | Lebanon | 11.11 4.48 | Romania | 10.53 3.75 |
| Republic | 10.00 5.20 | India | 9.46 4.48 | Lebanon | 9.09 3.75 |
| India | 10.00 5.20 | Turkey | 8.53 4.48 | Portugal | 8.00 3.75 |
| Panama | 9.24 5.20 | Italy | 7.59 4.48 | Cyprus | 7.60 3.75 |
| Cyprus | 7.65 5.20 | Cyprus | 7.24 4.48 | India | 7.46 3.75 |
| Myanmar | 7.41 5.20 | S. Korea | 6.25 4.48 | Antigua | |
| Liberia | 7.14 5.20 | Panama | 6.15 4.48 | & Barbuda | 6.43 3.75 |
| Brazil | 6.67 5.20 | China People's | 5.41 4.48 | Morocco | 5.56 3.75 |
| Spain | 6.67 5.20 | Republic | 5.41 4.48 | Spain | 4.59 3.75 |
| Egypt | 6.56 5.20 | Liberia | 4.59 4.48 | Isle of Man | 4.55 3.75 |
| Antigua & Barbuda | | Turkey | 4.52 3.75 | Ireland | 4.35 3.75 |
| Barbuda | 6.44 5.20 | Iceland | 4.29 3.75 | People's Republic | 4.00 3.75 |
| Bahamas | 6.39 5.20 | Panama | 4.29 3.75 | Spain | 4.00 3.75 |
| Isle of Man | 6.25 5.20 | China | | UK | 3.79 3.75 |
| Algeria | 6.06 5.20 | People's Republic | | |


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\textsuperscript{21} Includes flag States with more than 20 individual ship boardings.
registered in open registry States (and developing States) routinely experience higher than average delay/detention rates when compared to vessels registered in regulated or traditional maritime States. See Table 2. By contrast, vessels registered under traditional flags, including Paris MOU member States, averaged somewhat lower delay/detention rates. For example, in 1991 Denmark experienced a 1 percent delay/detention rate (2 percent in 1990), Germany a 2 percent rate (2 percent in 1990), Japan 0 percent (.03 percent in 1990), Greece a 5 percent (3 percent in 1990), and the United States a 4 percent rate (4 percent in 1990).22 Similarly, the data show that substandard conditions appear more frequently aboard vessels registered in open registry States and developing States. For example, in 1991, 62 flag States had a higher than average (45.58 percent) number of inspections with deficiencies. Ninety percent of those flag States were open registry States and developing States.23

The highest number of deficiencies uncovered by Paris MOU member States involve lifesaving equipment (31.12 percent in 1991; 26.13 percent in 1990; 25.25 percent in 1989) and firefighting equipment (15.66 percent in 1991; 16.97 in 1990; 17.93 percent in 1989). According to the Paris MOU 1991 annual report, the main cause of the majority of deficiencies resulted from a lack of proper maintenance (this has also been observed in previous years).24 Lack of proper maintenance can result from many factors, including vessel age, crew size, and owner or operator maintenance philosophy.

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23 Ibid., pp. 57-60.
24 Ibid., p. 28.
and management practices. However, one could also state that it is indicative of a lack of adequate governmental oversight.

The next section will examine special problems associated with open registry flags.

2.4 OPEN REGISTRIES

2.4.1 DEFINED

Every State has the right to sail ships flying its flag on the high seas. Under the 1958 Convention on the High Seas each State determines for itself "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." The Convention states that "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." However, the Convention never defined the term genuine link, leaving registration and control requirements imprecise and open to interpretation by individual States.

As a result of this lack of definition, certain States opened


27 Ibid., article 5(1).
### Table 3

**Major open registry fleets**

*As of 1 July 1991*

<table>
<thead>
<tr>
<th>Flag</th>
<th>No of Vsls.</th>
<th>Deadweight (DWT)</th>
<th>% of world fleet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberia</td>
<td>1,605</td>
<td>93,640,374</td>
<td>13.70</td>
</tr>
<tr>
<td>Panama</td>
<td>4,953</td>
<td>72,169,724</td>
<td>10.50</td>
</tr>
<tr>
<td>Cyprus</td>
<td>1,359</td>
<td>36,526,992</td>
<td>5.33</td>
</tr>
<tr>
<td>Bahamas</td>
<td>973</td>
<td>28,798,214</td>
<td>4.20</td>
</tr>
<tr>
<td>Malta</td>
<td>702</td>
<td>11,852,963</td>
<td>1.70</td>
</tr>
<tr>
<td>Bermuda</td>
<td>100</td>
<td>5,193,756</td>
<td>.75</td>
</tr>
<tr>
<td>St. Vincent</td>
<td>698</td>
<td>4,221,099</td>
<td>.62</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>287</td>
<td>3,328,686</td>
<td>.48</td>
</tr>
<tr>
<td>Gibraltar</td>
<td>44</td>
<td>2,695,106</td>
<td>.39</td>
</tr>
<tr>
<td>Isle of Man</td>
<td>114</td>
<td>1,937,529</td>
<td>.27</td>
</tr>
<tr>
<td>Marshall Islands</td>
<td>28</td>
<td>1,698,051</td>
<td>.25</td>
</tr>
<tr>
<td>Honduras</td>
<td>846</td>
<td>1,225,100</td>
<td>.17</td>
</tr>
<tr>
<td>Antigua &amp; Barbuda</td>
<td>241</td>
<td>811,176</td>
<td>.12</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>155</td>
<td>538,967</td>
<td>.07</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12,105</strong></td>
<td><strong>264,311,905</strong></td>
<td><strong>38.55</strong></td>
</tr>
</tbody>
</table>

*Source: Lloyd’s Register Statistical Tables, 1991*
their registries to ships owned and operated by foreign companies to generate revenue from ship registration fees. They imposed few conditions for registry and generally lacked the capability to effectively control vessels registered under their flag. Countries that conducted such practices became known as flag of convenience or open registry countries. The Rochdale Committee provided a comprehensive definition of the term open registry in 1970, as follows:

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

- access to the registry is easy; a ship may usually be registered at a consulate abroad. Equally important transfer from the registry at the owner's option is not restricted;

- taxes on the income from the ships are not levied locally, or are very low. A registry fee and an annual fee, based on tonnage, are normally the only charges made. A guarantee or acceptable understanding regarding future freedom from taxation also be given;

- the country of registry is a small power with no national 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;

- manning of ships by non-nationals is freely permitted;

- the country of registry has neither the power nor the administrative machinery effectively to impose any government or international regulations; not has the country even the wish to control the companies themselves.28

The committee believed that all conditions must exist for a flag to be considered open, but, as a practical matter, no open registries meet all the conditions and need not do so.

From a vessel owner’s point of view, open registry flags provide many distinct advantages the most important of which is lower operating costs, including lower crew costs. Other advantages include freedom to recruit crews of any nationality, freedom from national manning scales and regulation, freedom from restriction on raising capital, freedom from income taxes, preferential trading opportunities, less red tape, freedom from strict safety regulations, and liberal manning and crew qualification.

2.4.2 BENEFICIAL OWNERSHIP
Since the mid-1940s, open registry fleets have increased dramatically in size from about 4 percent of world gross registered tonnage (GRT) to about 34 percent of world GRT today.29 As a result, the fleets of traditional maritime nations have declined significantly, as vessel owners transferred their vessels to open registry fleets. Nevertheless, despite this trend, ownership of the world fleet remains largely concentrated in a small number of mostly traditional maritime nations. For example, in July 1990, 68.94 percent of the world fleet was owned or controlled by parent companies domiciled in just 10 countries.30 Moreover, shipowners from just two countries

29 Ibid., p. 548.
30 UNCTAD, Review of Marine Transport (1990), p. 8. Also see figure 1 for a listing of those countries.
Figure 1

The national and foreign fleets of ten most important maritime countries.
As of 1 July 1990

Adapted from the UNCTAD Review of Maritime Transport 1990
### Table 4

**True ownership of five major open registry fleets expressed as a % of DWT**

As of 1 July 1990

<table>
<thead>
<tr>
<th>True Country or Territory of domicile</th>
<th>Liberia % of DWT</th>
<th>Panama % of DWT</th>
<th>Cyprus % of DWT</th>
<th>Bahamas % of DWT</th>
<th>Bermuda % of DWT</th>
<th>Combined % of DWT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>13.2</td>
<td>10.7</td>
<td>58.9</td>
<td>13.5</td>
<td>13.2</td>
<td>19.2</td>
</tr>
<tr>
<td>Japan</td>
<td>13.5</td>
<td>39.8</td>
<td>0.2</td>
<td>3.9</td>
<td>-</td>
<td>17.1</td>
</tr>
<tr>
<td>U.S.</td>
<td>23.2</td>
<td>3.0</td>
<td>1.1</td>
<td>23.9</td>
<td>49.6</td>
<td>15.6</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>16.0</td>
<td>14.3</td>
<td>1.5</td>
<td>1.7</td>
<td>-</td>
<td>11.3 63.2</td>
</tr>
<tr>
<td>Norway</td>
<td>10.0</td>
<td>3.2</td>
<td>4.4</td>
<td>12.0</td>
<td>3.0</td>
<td>7.3</td>
</tr>
<tr>
<td>U.K.</td>
<td>6.2</td>
<td>1.7</td>
<td>1.0</td>
<td>7.0</td>
<td>30.2</td>
<td>5.3</td>
</tr>
<tr>
<td>Germany</td>
<td>3.5</td>
<td>3.2</td>
<td>4.8</td>
<td>0.2</td>
<td>0.0</td>
<td>3.1</td>
</tr>
<tr>
<td>S. Korea</td>
<td>1.5</td>
<td>4.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Taiwan</td>
<td>0.7</td>
<td>4.0</td>
<td>2.2</td>
<td>3.0</td>
<td>0.0</td>
<td>1.7</td>
</tr>
<tr>
<td>China</td>
<td>1.1</td>
<td>3.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.5 84.0</td>
</tr>
<tr>
<td>Finland</td>
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<td>1.0</td>
<td>0.0</td>
<td>9.9</td>
<td>0.0</td>
<td>1.2</td>
</tr>
<tr>
<td>France</td>
<td>0.6</td>
<td>0.4</td>
<td>0.0</td>
<td>6.2</td>
<td>0.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.0</td>
<td>1.0</td>
<td>1.4</td>
<td>0.7</td>
<td>0.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1.5</td>
<td>1.0</td>
<td>0.0</td>
<td>1.9</td>
<td>0.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Singapore</td>
<td>0.6</td>
<td>1.5</td>
<td>0.0</td>
<td>1.8</td>
<td>0.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.7</td>
<td>0.9</td>
<td>0.2</td>
<td>2.3</td>
<td>0.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.9</td>
<td>0.0</td>
<td>0.0</td>
<td>2.4</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.5</td>
<td>0.0</td>
<td>0.0</td>
<td>4.6</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Subtotal</td>
<td>94.7</td>
<td>92.2</td>
<td>77.1</td>
<td>92.4</td>
<td>96.1</td>
<td>91.3</td>
</tr>
<tr>
<td>Others</td>
<td>5.3</td>
<td>7.8</td>
<td>22.9</td>
<td>7.6</td>
<td>3.9</td>
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<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Adapted from UNCTAD, Review of Maritime Transport 1990
- Greece and Japan - owned or controlled 27 percent of world tonnage.31

Ownership of the open registry fleets is concentrated in a relatively small number of mostly traditional maritime countries. Table 4 provides a breakdown of national ownership of five major open registry fleets, as of July 1990. The table shows that 84 percent of the DWT registered in the five open registry countries is owned by parent companies located in just ten countries. Owners domiciled in three countries and one territory - Greece, the United States, Japan, and Hong Kong - owned 63.2 percent of the combined tonnage of these open registry flags.32

2.4.3 FLEET LOSSES

Generally, vessels registered under open registry flags suffer higher loss rates than vessels registered under traditional maritime flags. Historically, open registry fleets have sustained loss rates two to four times higher than traditional maritime fleets, although the record of some open registry fleets such as Liberia have improved somewhat in recent years.33

Within the last two decades worldwide total vessel loss rates have declined significantly.34 Nonetheless, open registry fleet tonnage and vessel losses remain high. For example,

31 Ibid.
32 Ibid., p. 15 and Table 4.
Figure 2

Number of vessels lost between 1970-1991

Source: Lloyd’s Register Annual Casualty Returns 1991
Table 5
A comparison of open registry (OR) and developed country (DEV) fleet gross tonnage (GT) losses.

<table>
<thead>
<tr>
<th>Year</th>
<th>OR GT losses as % of world</th>
<th>OR GT as %</th>
<th>DEV fleet losses as % of world</th>
<th>DEV fleet GT as % of world</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>58.89</td>
<td>27.29</td>
<td>19.01</td>
<td>36.65</td>
</tr>
<tr>
<td>1987</td>
<td>48.27</td>
<td>29.59</td>
<td>25.13</td>
<td>32.58</td>
</tr>
<tr>
<td>1988</td>
<td>51.70</td>
<td>30.14</td>
<td>25.79</td>
<td>33.98</td>
</tr>
<tr>
<td>1989</td>
<td>46.01</td>
<td>30.44</td>
<td>19.90</td>
<td>33.44</td>
</tr>
<tr>
<td>1990</td>
<td>48.47</td>
<td>29.72</td>
<td>30.87</td>
<td>34.16</td>
</tr>
<tr>
<td>1991</td>
<td>47.26</td>
<td>31.00</td>
<td>22.01</td>
<td>32.89</td>
</tr>
</tbody>
</table>

Source: Lloyd's Register Statistical Tables 1991
Lloyd's Register Annual Casualty Returns 1991

Table 6
Countries with the highest vessel and GT losses between 1986-1991

<table>
<thead>
<tr>
<th>Flag</th>
<th>No. vsl. lost</th>
<th>% vsl. of world</th>
<th>% vsl. losses</th>
<th>% GT lost</th>
<th>% GT lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberia</td>
<td>27</td>
<td>1.97</td>
<td>1,392,722</td>
<td>17.19</td>
<td></td>
</tr>
<tr>
<td>Cyprus</td>
<td>68</td>
<td>4.95</td>
<td>1,091,277</td>
<td>13.47</td>
<td></td>
</tr>
<tr>
<td>Panama</td>
<td>170</td>
<td>12.39</td>
<td>979,130</td>
<td>12.09</td>
<td></td>
</tr>
<tr>
<td>S. Korea</td>
<td>69</td>
<td>5.03</td>
<td>478,047</td>
<td>5.91</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>39</td>
<td>2.84</td>
<td>633,988</td>
<td>7.83</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>373</td>
<td>27.18</td>
<td>4,575,164</td>
<td>56.49</td>
<td></td>
</tr>
</tbody>
</table>

Source: Lloyd's Annual Casualty Review 1991

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35 Includes Bahamas, Cyprus, Gibraltar, Liberia, Malta, Panama, Saint Vincent, and Vanuatu.
36 Includes Australia, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, Netherlands, Norway, Spain, Sweden, Turkey, UK, and USA.
Table 5 shows that open registry tonnage losses are almost twice those of developed country fleets. Moreover, between 1986 and 1991, open registry fleets accounted for 50 percent of tonnage and 25 percent of ships lost, although they accounted for only 30 percent of the tonnage and about 12 percent of the ships. The three largest open registry fleets - Liberia, Panama, and Cyprus - sustained the highest tonnage losses during this period, with a combined total of 42.75 percent (19.31 percent of the ships lost).

2.4.4 RELIABILITY

Samir Mankabady cataloged ten reasons why nonobservance of international safety and pollution standards may be greater under an open registry flag:

(1) Real owners are not readily identifiable, therefore owners are more likely to take risk;

(2) Real owners can easily and frequently change their identification, thereby avoiding identification as repeated substandard operators or risk-takers;

(3) Since the masters, officers, and crews are not nationals of the flag State they are more likely to avoid legal action;

(4) Owners who reside outside the jurisdiction to the flag State can defy its requests to testify at an inquiry and thereby avoid prosecution;

(5) Open registry owners are less likely to cooperate with inspectors from the flag State, because of a lack of incentive to preserve good relations with the flag State;

(6) Open registry shipping lacks union structure which is essential to the application of safety and social standards;

(7) Open registry owners are in a better position to put pressure on masters and officers to take risks, since there

38 See Table 6.
is rarely a government authority to which shipboard personnel can complain;

(8) Port State control is less effective because the port State can only report substandard vessels and practices to flag State which has no real control over the owner;

(9) Owners can easily manipulate their crews because of the ability to change nationalities of crews at whim;

(10) Enforcement of standards is inconsistent with the operation of a registry with the sole aim of making a profit."

Moreover, control by open registry countries is further hampered by the fact that ships registered under these flags rarely call at ports under the jurisdiction of the flag State, making it difficult for those governments to exercise control over them.

2.4.5 CAPABILITIES
The ability and commitment of open registry countries to exercise control over their ships vary considerably. Some States, for example Liberia, have implemented strict regulations with respect to ship safety, manning, and crew qualifications and have established worldwide inspection and seamen certification programs. However, others, particularly recent entrants, have embryonic maritime administrations and liberal safety, manning, and crew qualification requirements. Examples of the latter are Antigua and Barbuda and the Republic of Vanuatu." A number of States offer financial and other advantages that are similar to those of open registry countries (and considered open registries by some), but with

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regard to safety, manning, and crew certification fall under the jurisdiction of a traditional maritime country. For example, Bermuda, Cayman Islands, Isle of Man and Gibraltar are part of the British registry and are subject to British maritime law.

Few open registry countries have adequately sized maritime administrations or the staff to operate them. The Bahamian maritime administration, for example, is staffed with just 10 persons (even though 1991 it had the fourth largest open registry fleet). Consequently, some open registry countries appoint private organizations to administer their maritime safety programs. For example, Liberian Services Inc., a Reston, Virginia-based private maritime service company, administers the Liberian maritime program. The company conducts world-wide inspections, crew licensing, and casualty investigations on behalf of the Liberian government, although most of these functions are contracted out to other inspection entities. Almost all open registries delegate some or all of their inspection duties to classification societies, for example the American Bureau of Shipping and Lloyd’s Register, or other inspection authorities. While this has enabled these States to provide worldwide coverage, it has created other problems.

Classification societies are private entities that establish rules and standards for the design, the construction, and the machinery of ships and other marine structures and conduct hull, machinery, electrical, and ship control surveys on

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41 Ibid., p. 291.
behalf of shipowners and insurance companies to determine seaworthiness for insurance purposes. Because many of these organizations have maritime experience, technical expertise, and world-wide inspection capabilities, many open registry countries have delegated their responsibilities under SOLAS, LLC, MARPOL and other instruments to classification societies, authorizing them to conduct periodic surveys and issue certificates. Also, open registry countries allow classification societies to interpret conventions for them because they lack administrative or technical capacity to do so.

However, many international observers have criticized the use of classification societies by flag States for several reasons. First, these organizations are typically employed (and paid) by both the ship owner (to verify compliance with classification rules) and the flag State (to enforce international standards on behalf of the flag State). Many believe that this creates a conflict of interest, making it difficult for classification societies to objectively enforce international standards. Moreover, enforcing IMO standards requires the classification surveyor to assume the role of that of policemen, which many are reluctant to do, particularly when the ship owner is paying the bill. Second,


many observers contend that classification society are reluctant to enforce maritime safety and pollution prevention standards because of intense competition among the societies for business. A classification society that earns a reputation for being too tough may lose business to other classification societies. Finally, classification societies lack the necessary knowledge or expertise, particularly in the area of lifesaving equipment, fire safety equipment, and navigation requirements.

2.5 CONCLUSIONS
In recent years, a large number of shipowners have transferred their vessels from traditional maritime States to open registry States. As pointed out in this chapter, many of the latter states fail for a variety of reasons to exercise effective control over their vessels, as required under international law. Consequently, the number of substandard vessels, vessel casualties, and vessel-source pollution incidents remains high, particularly among open registry States. One way of improving safety of life at sea and reducing vessel source pollution is through increased governmental oversight. Port State Control provides a means of achieving this additional oversight by empowering the port State to verify that vessels using its ports are in compliance with the applicable international standards. It should be pointed out that the port State control regime is not intended to replace the flag State as the primary enforcement authority, rather it supplements the latter's authority. The next chapter will examine the concept and legal requirements of the port State control regime.
CHAPTER 3 PORT STATE CONTROL
OVER SUBSTANDARD SHIPS

3.1 PORT STATE CONTROL

Port state control may be defined as the control of a foreign-flag vessel by a port State within its ports, internal waters and at its offshore terminals seas for violations of international standards. More precisely, port State control empowers port States to board, examine, and, if necessary, detain foreign-flag vessels while visiting their ports for violations of international standards relating to vessel safety, pollution control, manning, crew competence, and on-board crew living and working conditions. It should be emphasized that a port State may not exercise control on the high seas.

The concept of port State control with respect to safety of life at sea and pollution prevention is embodied in the following IMO conventions:

(1) Regulation 19 of Chapter 1 of the 1974 Safety of Life at Sea Convention, as amended in 1978 (SOLAS 74/78);

(2) Article 21 of the 1966 Load Line Convention (LLC 66);

(3) Articles 5 and 6 of the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 (MARPOL 73/78);

(4) Article X of the Standards of Training,
Certification and Watchkeeping for Seafarers, 1978 (STCW 78).

Prior to the mid-1970s, there was no significant practice of port State control, although the idea had been around for many years." In the late 1960s and the early 1970s, a number of catastrophic ship casualties, particularly involving vessels flagged under open registries, revealed that these flag States lacked the capability to either implement or enforce safety standards aboard their vessels, worse many of them were not even party to the relevant IMO conventions. In response to public outcry, some open registry countries, notably Liberia and Panama, introduced worldwide inspection programs and tightened their regulations; however, the majority of other open registry countries lacked the resources or technical skills or, in some cases, the will to implement effective maritime safety programs. Consequently, the concept of port State control was introduced into the enforcement regime to supplement flag State control.

In November 1975, the IMO adopted a set of guidelines prepared by its Maritime Safety Committee, which encouraged port States to make more effective use of their control powers under the SOLAS and the LLC conventions." Additionally, both MARPOL 73/78 and the STCW conventions include provisions for port State control. Over the years, the IMO has issued a number of nonbinding resolutions

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46 IMO Resolution A.321(IX) dated 12 November 1975.
detailing port State inspection guidelines under these treaties.

3.1.1 INSPECTION

Under the terms of the aforementioned treaties, a port State may initiate a control action (1) to verify whether a vessel possesses valid certificates, as required by the applicable Conventions," or (2) to investigate a complaint by a crewmember, a professional body, an association, or any other individual or organization with interest in the safety of the ship, its crew or passengers. If a vessel’s certificates are in order, a port State surveyor generally may not conduct a physical inspection of a ship unless there are "clear grounds" for believing that it does not meet the requirements of the applicable conventions. Generally, "clear grounds" may exist when, in the judgment of the inspector, the condition of a ship or its equipment indicate serious deficiencies or a lack of proper maintenance, which would render a ship substandard or a threat to the marine environment. Inspections related to the investigation of deficiencies reported by a master or crew " or other individuals or organizations must generally be limited to reported deficiencies, unless the "clear grounds" criterion is determined.

A ship that does not fully comply with the relevant

47 These certificates include the Cargo Ship Safety Construction Certificate, the Cargo Ship Safety Equipment Certificate, the Passenger Ship Safety Certificate, the Radiotelegraphy and Radiotelephony Certificates, the Load Line Certificate, and International Oil Pollution Certificate, among others.

48 Under SOLAS and MARPOL, officers and crews are required to inform the port State of defects that substantially affect the integrity of the ship.
international standards may be classified as substandard and is subject to delay or detention until such time as the deficiency is corrected. More specifically, a ship may be considered substandard if one or more of the following conditions exists:

(1) a vessel lacks the required certificates;
(2) the hull, machinery or equipment such as life-saving, radio, and fire-fighting are below Convention standards;
(3) a ship or its equipment is substantially deteriorated due to poor maintenance practices;
(4) a ship is insufficiently manned;
(5) noncompliance with the operational requirements of applicable conventions;
(6) crew living and working conditions are below the relevant standards;
(7) any condition is found to exist that would render the ship unseaworthy or would put at risk the life of persons on board or would create a threat to the marine environment it were allowed to proceed to sea."

If the required certificates are not on board or not valid, or if there are "clear grounds" for believing that the ship does not substantially meet the requirements of the relevant conventions, a more detailed inspection may be carried out. Guidelines for port State control inspections under SOLAS and MARPOL are found in the following nonbinding IMO resolutions and document:

(1) IMO resolution A.466(XII), Procedures for the Control of Ships;
(2) IMO resolution A.542(13) Procedures for the Control of Ships and Discharges under Annex I

\*\*IMO Resolution A.466(XII), pp. 19-23.\*\*
of MARPOL 73/78;

(3) MEPC 26(23), Procedures for the Control of Ships and Discharges under Annex II of MARPOL 73/78.

Since IMO resolutions and MEPC documents are nonbinding on Contracting parties, individual port States have considerable latitude in applying them. Consequently, inspections may vary from State to State. Nevertheless, an inspection will generally involve an examination of one or more of the following areas:

- hull, superstructure, and weatherdecks to ascertain structural integrity;
- watertight hatches and closing appliances, and other deck openings such as air pipes and vent coamings to determine the watertightness;
- lifesaving, fire fighting appliances and navigational equipment including radio installations and navigational charts and publications;
- main and auxiliary machinery, steering systems, and electrical installations;
- cargo piping and pumping systems, including tank venting systems and pollution prevention equipment, including crude oil washing systems, inert gas systems, and equipment designed to control the discharge of oil or hazardous substances such as on deck containment systems and oily water separating equipment.\(^5\)

The following discrepancies may result in a vessel being detained in port:

- significant areas of damage or corrosion of shell or deck plating and their internal members if such

\(^5\) IMO Resolution A.466(XII).
damage or corrosion affects strength or seaworthiness;

- missing or seriously deteriorated or damaged lifeboats, liferafts, ring buoys or lifejackets;

- inoperative fire pumps or fixed fire fighting systems, or missing or expired fire extinguishers or emergency gear;

- serious deficiencies related to the main or auxiliary propulsion equipment or steering system, or an inoperative emergency generator;

- evidence of a lack of good safety or housekeeping practices in machinery spaces areas such as frayed or disconnected wires, missing valve handwheels, inoperative gauges, rusted relief valves, evidence of chronic steam, water and oil leaks, extensive corrosion of machinery foundations, large number of temporary repairs such as cement boxes, inoperative or disconnected safety or control devices, malfunctioning or inoperative automatic equipment and alarm systems.\(^{1}\)

### 3.1.2 MANNING

Ships subject to SOLAS are required to carry a safe manning document.\(^{2}\) This document specifies a ship's minimum manning level, as established by the flag State in accordance with the following instruments:

1. SOLAS 74/78;
2. STCW 78;
3. IMO Resolution A.481(XII), Principles of Safe Manning: Annex 1, Contents of Minimum Safe Manning document; Annex 2, Guidelines for the application of Principles of Safe Manning;
4. ILO 147.

\(^{1}\) Ibid.
\(^{2}\) SOLAS 74/78, supra note 5, Chapter V, regulation 13(b)
Generally, the port State must accept a vessel's safe manning document as evidence that it is safely manned unless the document has clearly been issued without regard to the principles outlined in the above instruments or the actual crew number or composition does not conform to the document. In the latter case, the port State must notify the flag State and request a determination as to whether the ship can sail with the actual number of crew and composition." If the ship does not carry a safe manning document and the port State is not satisfied that the ship is safely manned it must notify the vessel’s flag State and request that it define the minimum number of crewmembers and composition. If the flag State does not reply, then the port State must evaluate whether the ship can safely sail with its crew compliment.

3.1.3 OPERATIONAL CONTROL

Traditionally, port State control inspections have centered on the examination of vessels and their equipment; relatively little attention was paid to shipboard operations. However, a number of recent accidents have suggested that many officers and crews are not familiar with the operation of essential shipboard equipment or routine operational procedures. Moreover, many vessels rarely call at flag State ports, making it difficult for many flag States maintain oversight over operational procedures, except during annual flag State inspections. Consequently, IMO adopted resolution A.681(XVII), Procedures For The Control Of Operational Requirements Related To The Safety of Ships and Pollution

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33 IMO Resolution A.481 (XII).
Prevention, on 6 November 1991. The nonbinding resolution states that when there are "clear grounds" for believing that the officers and crew are not familiar with essential shipboard procedures then port State control should be extended to include operational requirements in respect of the safety of ships and of pollution prevention.\textsuperscript{54} "Clear grounds" are defined as:

- "evidence of operational shortcomings revealed during port State control procedures in accordance with SOLAS 74/78, MARPOL 73/78 AND STCW 78;
- evidence of cargo and other operations not being conducted safely or in accordance with IMO guidelines;
- involvement of the ship in incidents due to failure to comply with operational requirements;
- evidence, from observation of a fire and abandon ship drill, that the crew are not familiar with essential procedures;
- absence of an up-to-date muster list;
- indications that key crewmembers may not be able to communicate with each other or with other persons on board.\textsuperscript{55}

The port State may conduct such onboard operational procedures as it deems necessary to ascertain the ability of the crew to perform basic operations essential to safety and pollution prevention. Such examinations or test may include: (1) witnessing a fire and boat drill to determine familiarity with fire and lifesaving equipment; (2) ascertaining if officers in charge of a navigational watch are familiar with bridge control and navigational equipment; and (3) determining whether personnel assigned to perform cargo

\textsuperscript{54} IMO Resolution A.681(XVII), p. 2.
\textsuperscript{55} Ibid., pp. 3-4.
operations are familiar with the operation of cargo systems. Having observed the crew's performance, the port State inspector then has to "exercise his professional judgment to determine whether the operational proficiency of the crew as a whole is of sufficient level to allow the ship to sail without a major risk or whether a better level of proficiency should be required." Procedures for detaining a vessel are found in IMO resolution A.481(XII).

3.1.4 Non-convention ships
Several international conventions - SOLAS 74/78, MARPOL 73/78 and STCW 78 - require port States to ensure that non-party ships are afforded "no more favorable treatment" than that given to ships of party states. This means that ships from non-party states must comply with the requirements of the applicable Conventions when calling at a port of a party state. Consequently, port States must inspect vessels of non-party States in the same manner as ships from party States.

3.1.5 DETENTION
Generally, deficiencies discovered during a port State inspection must be corrected prior to a vessel's departure from port. In the case of a deficiencies that is clearly hazardous to safety, health, or the environment, the port State is obligated to detain a vessel until such time as the discrepancies are rectified." However, in the case of minor deficiencies a vessel may be allowed to leave port if in the

56 Ibid., p. 6.
57 SOLAS 74/78, article 19; LLC 66, article 21; MARPOL 73/78, article 5; STCW 78, article X.
judgment of the attending inspector or the port State authority the deficiencies do not affect a vessel’s seaworthiness, or endanger passengers or crew or cause a vessel to pose a threat to the marine environment. With the exception of the MARPOL convention, IMO instruments (i.e., SOLAS, LLC, and STCW) do not provide for monetary fines or criminal sanctions. It should be noted, however, that a port State may impose such sanctions under the authority of national legislation, if such legislation provides for them.

When a port State delays or detains a vessel in port it costs an owner or operator money and time. These costs include: (1) the cost of ship’s time, (2) the dollar cost of correcting or repairing deficiencies, and (3) long-term loss of shippers’ goodwill. Consequently, the use of this enforcement technique provides a real incentive to vessel owners and operators to properly maintain their vessels.

3.1.6 REPORTING

When a port State exercises control giving rise to an intervention it must inform the consul or other recognized representative of the flag State of “all the circumstances in which intervention was deemed necessary.” If the port State is unable to take action for any reason or the ship has been allowed to proceed to the next port of call for repairs, the port State must notify the authorities at the next port of call.”

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59 SOLAS 74/78, supra note 5, chapter 1, regulation 19(e).
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3.1.7 REPORTS TO IMO

Under SOLAS 74/78, a port State must submit a report to the IMO's Maritime Safety Committee (MSC) following a control action. These reports give specific details of the name of the ship, year build, and other technical specifications and the action taken by the port State. In addition, flag States are requested to forward comments to the MSC regarding the status of outstanding deficiencies. The MSC periodically publishes a list of these reports together with flag State comments and outstanding deficiencies and distributes them to its Contracting Parties.

Few Contracting Parties submit the reports required by SOLAS 874/78. For example, between July 1984 and September 1991 the MSC received 1496 individual reports detailing some 8393 deficiencies. On average, less than 20 Contracting Parties submitted reports annually. The vast majority of intervention reports were submitted by Paris Memorandum of Understanding member States, which is examined later in this study. The United States, Japan, Canada, and Australia also regularly submit reports. Very few reports were received from developing States or open registry States.

Similarly, few flag States submit comments to the MSC regarding the status of their outstanding deficiencies. For example, as of September 1991 there were 218 outstanding flag

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60 Ibid., regulation 19(d).
61 IMO Resolution A.466(XII), p. 18.
62 "Flag State Compliance: Deficiency Reports." MSC 60/11/1, at annex 5, dated 10 January 1992. An analysis of the 8393 deficiencies submitted to the MSC during the seven year period revealed that 78.85 percent of them involved (1) life-saving equipment (34.97 percent), (2) fire detection or extinguishing equipment (30.97 percent), and navigation safety (12.91 percent). A large number of the deficiency reports involved ships registered under open registries.
State deficiencies. Developing States and open registry States accounted for 79.35 percent of them, with Panama having the largest number of outstanding deficiencies with 66 (or 30 percent).

The number of States submitting reports required by MARPOL 73/78 is also small. Among other reports, the Convention requires Contracting Parties to submit an annual report detailing: (1) the number of incidents involving oil spillage of 100 tons or more, (2) reports by the Coastal state of alleged violations referred to the flag State, (3) a summary of actions taken with respect to alleged violations of the Convention’s discharge provisions referred to that State, (4) a summary of alleged inadequacy of reception facilities as well as actions taken, (5) the effectiveness of port State control actions, (6) a summary of penalties imposed, and (7) a summary of vessels delayed, detained or denied entry. A recent study conducted by the Friends of the Earth International (FOEI), a nongovernmental environmental group, found that only about 20 percent of the 70 parties to the Convention submit annual reports. For example, in mid-1990, only 9 countries – Australia, Bulgaria, China, Germany, Greece, Japan, Norway, the United Kingdom and the United States – submitted reports.

Because few Contracting Parties submit reports required by SOLAS or MARPOL, it is difficult to assess or analyze the

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63 As required by articles 4, 5, 6 and 8.
64 MARPOL 73/78, supra note 7, article 11((1)(e) and (f).
effectiveness these instruments have on maritime safety or pollution prevention. Moreover, for this reason, it is difficult to judge whether (1) Contracting Parties are fulfilling their responsibilities under the conventions, or (2) port State control is having any effect on reducing the numbers of substandard ships, or (3) the level of fines levied under MARPOL are adequate in severity to reduce pollution.

There are a number of reasons why Contracting Parties fail to submit reports. Some states may not report simply because there have been no actions or violations while others lack the appropriate mechanisms - resources, technical skills, finances - to properly apply or enforce the relevant conventions. The IMO should take steps to strengthen its reporting procedures.

3.2 REGIONAL PORT STATE CONTROL EFFORTS

3.2.1 PARIS MEMORANDUM OF UNDERSTANDING ON PORT STATE CONTROL (PARIS MOU)

The Paris MOU coordinates the port State control programs of the maritime authorities of 15 Western European nations. More specifically, the agreement standardizes inspection, detention, rectification, and reporting procedures and facilitates the systematic exchange of information among its members through its computer center - “Centre Administratif des Affaires Maritimes” (CAAM) - located in Saint-Malo.

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[67] PARIS MOU. 21 ILM 1. Entered into force January 1982. Members include Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden, and United Kingdom of Great Britain and Northern Ireland. Note: Poland adhered to the MOU on 27 November 1991.
France.

The Paris MOU was adopted in January 1982 and came into operation in July of that year, replacing the Hague Memorandum. The latter agreement was implemented by eight North Sea States in March 1978 shortly after the AMOCO CADIZ grounded off the coast of France to coordinate their port State control efforts. However, for various reasons, it proved to be ineffective. Consequently, in December 1980, the ministers of thirteen European countries met in Paris to examine ways of improving the effectiveness of control on foreign ships in their ports. The result was the Paris MOU.

3.2.2 ORGANIZATION
The organizational structure of the Paris MOU is as follows:

The Port State Control Committee. The Committee is the MOU's executive body. It is composed of representatives from each of the fifteen maritime authorities and the Commission of the European Communities. Representatives of the IMO and the ILO participate as observers. Among other things, the committee reviews and approves matters relating to the operation and effectiveness of the Memorandum, including surveyor qualifications and training and inspection procedures. It meets annually.

The Secretariat. The secretariat handles day to day administrative matters, including the preparation of meetings and reports and the exchange of information among member

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68 M. Titz, supra note 44, p. 191.
Figure 3


nations. It is located at the Netherlands’ Ministry of Transport and Public Works in Rijswijk, the Netherlands."

The Computer Center. The CAAM is operated by the government of France in Saint-Malo, France. Because the results of all port State inspections are entered into the center’s computers, the CAAM permits member States to retrieve critical information, for example outstanding discrepancies, prior to boarding a vessel. Additionally, the center provides valuable statistical data.  

3.2.3 INSPECTIONS

Since 1982 MOU members have boarded nearly 78,000 vessels, delaying or detaining 3,411 of them for non-compliance with international standards. Under the agreement each member State must maintain an effective system of port State control so as to enable it to annually inspect 25 percent of the foreign-flag ships calling at its ports. In theory, this ensures that about 85 percent of all ships using the ports of member states are boarded. To date, however, MOU member States have fallen short of this goal, attaining only a 23.7 percent inspection rate in 1991 (1990: 23.0 percent; 1989: 20.6 percent; 1988: 18.2 percent). Historically, between 3.5 and 6 percent of the vessels boarded by member States are detained annually. In 1991, the detention rate was 5.25 percent (in 1990 4.48 percent, in 1989 3.75 percent).

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69 PARIS MOU, supra note 67, section 6.
70 Ibid.
72 PARIS MOU, supra not 67, section 1.3
The agreement's main goal is to ensure that vessels calling at member ports comply with international standards relating to safety of life at sea, pollution prevention, and on board working and living conditions, as set forth in the following instruments:

(1) SOLAS 74/78;
(2) LLC 66;
(3) MARPOL 73/78;
(4) STCW 78;
(5) the Convention for the International Regulations for Preventing Collisions as Sea (COLREGS 72);
(6) ILO 147."

Paris MOU boarding procedures closely parallel IMO and ILO port State control guidelines, as described earlier in this chapter. Where inspections uncover deficiencies that are clearly hazardous to safety, health or the environment ships are detained in port until such time as they are corrected." To avoid duplicating inspections, ships that have been inspected within the previous six months by any of the other Authority may not be reinspected, unless they have clear grounds for further inspection.""

3.2.4 OTHER REGIONAL EFFORTS

Based in part on the success of the Paris MOU, the IMO Assembly adopted resolution A.683(XVII), Regional Co-operation in the Control of Ships and Discharges, in 17

"Ibid., section 2.1.
"Ibid., section 3.7.
"Ibid., section 3.4.
November 1991. The resolution invites governments to consider participating in regional agreements and requests the secretary-general to secure funds for the organization of regional seminars on matters related to port State control. Other regional port State control programs are presently being considered. For example, in February 1992, a group of eight Asia-Pacific nations met in Tokyo, Japan to consider establishing a regional Asia-Pacific port State control arrangement.

3.3 ANALYSIS

National port State control inspection programs vary greatly in structure, capabilities, and inspection policies with certain States, namely the United States, Japan, Australia, Canada, and Paris MOU member States, having fairly sophisticated, aggressive programs and other States, primarily developing States, having relatively small, ineffective inspection programs or no programs at all. As a result, the level of enforcement varies greatly from State to State. Because the port State control regime is relatively new and the individual State inspection programs vary in size and ability, it is difficult to judge whether the regime has reduced the numbers of substandard ships or improved compliance with international safety and pollution instruments. Moreover, the failure of many States to submit to the IMO the reports required by SOLAS and MARPOL precludes any detailed analysis or definitive judgments with regard to the regime's effectiveness.

Implementing a port State control program requires money, resources, and technical expertise. Many developing States lack the financial or technical wherewithal or infrastructure to establish and maintain such programs and, consequently, can not do so. Moreover, the IMO port State control inspection guidelines and polices, as outlined in the aforementioned IMO resolutions and documents, promote inconsistent enforcement by port States because they are nonbinding. Consequently, port States may interpret and apply IMO inspection standards differently, subjecting ship owners and operators to a variety of policies and practices.

What can be done to enhance the port State control regime? First, the data currently collected and distributed by IMO is incomplete, untimely, and inhibits the effectiveness of the various port State inspection programs. An efficient data collection and information sharing system would greatly reduce inconsistency among the various port State programs and provide port States with valuable intelligence as to the identity and history of substandard ships thus enabling them to concentrate their efforts and limited resources on those ships. Therefore, the IMO should implement an information system that would ensure the timely collection, analysis, and sharing of information from the various port State inspection programs. Second, the IMO should codify (i.e., international treaty) its port State inspection policies and procedures so that they would be binding on all port States. Finally, IMO and leading maritime States should intensify their efforts to provide training programs, technical assistance, and
financial aid for poor regions or States with no infrastructure or resources to inspect vessels.
CHAPTER 4 PORT STATE CONTROL
OVER VESSEL-SOURCE POLLUTION

4.1 INTRODUCTION

For centuries, flag States have enjoyed exclusive jurisdiction over their vessels on the high seas, with the attendant power to prescribe and enforce pollution prevention standards (i.e., design, construction, equipment, manning, and discharge standards). More importantly, flag States have enjoyed the virtually exclusive right to inspect their ships and prosecute violations of international and national pollution standards anywhere in the world, including violations that occurred within the internal waters and territorial sea of another State, although the flag State, coastal State, and port State shared concurrent jurisdiction in these waters.

Beginning in the 1960s, many coastal States began to question the idea of exclusive flag State jurisdiction over pollution control standards. A number of high profile pollution incidents, for example, the 1967 grounding of the Liberian-registered tanker TORREY CANYON, which spilled 120,000 tons of heavy crude oil onto the British and French coastlines, vividly demonstrated the inability of some flag States to effectively apply or enforce pollution prevention standards. Moreover, under prevailing international law, the coastal

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77 Convention on the High Seas, supra note 14, article 6(1).
State lacked jurisdiction to investigate or prosecute pollution incidents involving foreign-flag vessels beyond their territorial sea. Thus, only a flag State could investigate and prosecute suspected discharge violations on the high seas, even if they took place in waters just outside the three mile territorial sea and threatened pollution damage to a State’s coastal environment.

Frustrated by the inability to protect their coastal environment from vessel-source pollution, coastal States began to demand the right to prescribe and enforce pollution control standards aboard foreign-flag vessels operating beyond their territorial seas. As might be expected, traditional maritime powers resisted any attempt by coastal States to restrict or impede navigation on the high seas. However, a continuing number of vessel related pollution incidents, particularly involving vessels registered in flag of convenience or open registry countries, demonstrated that sole reliance on flag State jurisdiction would not in itself reduce vessel-source pollution. Moreover, international pollution prevention regulations proved to be ineffective in curbing pollution from ships.

In recent years coastal State jurisdiction has undergone two dramatic changes. First, a majority of coastal States have extended the geographic limits of their jurisdiction by (1) expanding the traditional three mile territorial sea to twelve miles and (2) establishing a 200 mile wide EEZ.

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79 Ibid., see, for example, pp. 14-38.
80 Ibid., Chapter 4.
Second, international law gave States certain new enforcement powers over foreign-flag vessels operating within these jurisdictional zones. To appease fears that freedom of navigation would be impeded if coastal States were given unrestricted authority to stop and board vessels at sea, port States were given the competence to investigate and prosecute violations of international pollution control standards occurring on the high seas and in the jurisdictional zones of other States. In return, coastal States were granted limited competence to prescribe and enforce pollution prevention requirements aboard foreign-flag vessels operating in their jurisdiction.

This chapter will examine the evolution of the port State control regime with respect to vessel-source pollution and outline the rights and duties accorded the port State under current international law - MARPOL 73/78. Finally, it will examine the rights and duties accorded the port State and the coastal State and the concept of port State enforcement outlined in the 1982 Convention on the Law of the Sea.

4.1.1 TRADITIONAL JURISDICTION

Under traditional international law, "the sovereignty of a State extends, beyond its land territory and its internal waters, to a belt of sea adjacent to its coast described as the territorial sea." Article 17 of the 1958 Convention on the Territorial Sea and the Contiguous Zone empowers a

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coastal States to prescribe and enforce pollution control standards aboard foreign-flag vessels operating within their territorial sea, subject to the right of innocent passage, as follows:

Foreign ships exercising the right of innocent passage shall comply with the laws and regulations enacted by the coastal State in conformity with these articles and other rules of international law, and in particular, with such laws and regulations relating to transport and navigation.

Historically, coastal State jurisdiction over foreign-flag shipping, with some exception, was limited to the seaward limit of the territorial sea. Beyond the territorial [the high seas] the flag State enjoyed exclusive jurisdiction over its vessels with at least two exceptions. First, some coastal States extended domestic pollution control laws to their contiguous zones. The Convention on the Territorial Sea and Contiguous Zone created a contiguous zone extending "twelve mile from the baseline from which the breadth of the territorial sea is measured." Within this zone, "the coastal state may exercise the control necessary to: (a) Prevent infringement to its customs, fiscal, immigration, or sanitary regulations within its territory or territorial sea; (b) Punish infringement of the above regulations committed within its territory or territorial sea." Although the term sanitary was not defined, certain States interpreted the term to include vessel-source pollution regulations." Second, the 1969 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution, adopted after the TORREY

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82 Ibid, article 24.
83 Ibid.
84 R. Legatski, supra note 1, p. 457.
CANYON disaster, empowers the coastal State to undertake whatever measures are necessary "to prevent grave and imminent danger to its coastline or related interests from oil pollution which is reasonably expected to have major harmful consequences."

4.1.2 EXPANSION OF COASTAL STATE JURISDICTION

Beginning with the Truman Proclamation in the mid-1940s, coastal states began extending the geographic limits of their jurisdiction seaward, in some cases claiming up to 200 miles from shore, to enable them to exercise control over the living and nonliving resources (i.e., fishing, oil, gas, and minerals) within these waters. Later, some coastal States made such claims to gain an increased measure of protection against environmental harms resulting from vessel-source pollution. For example, in the late 1960s Canada claimed a pollution control zone extending 100 miles seaward from the Canadian coast north of the 60th parallel. Within this zone the government of Canada claimed the right to regulate the discharge of pollutants from ships as well as vessel design requirements and equipment standards.

Today, a majority of States claim twelve mile wide territorial seas and 200 wide EEZ. Within these new jurisdictional zones, the MARPOL 73/78 and the 1982 UN Convention on the Law of the Sea bestow specific standard setting and enforcement authority with respect to vessel-

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86 R. Legatski, supra note 1, p. 457.
87 Ibid., p. 458.
88 Ibid., p. 457.
source pollution to the coastal State and the port State. These new powers range from broad rights in ports and internal waters to limited rights in EEZs and high seas. The following sections will examine these new rights and duties.

4.2 DEVELOPMENT OF THE PORT STATE CONTROL REGIME

4.2.1 THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION OF SEA BY OIL (OILPOL 54/69)

The first international convention dealing with the control of pollution from ships was the OILPOL 54/69. Under the Convention, vessels were prohibited from discharging oil with an oil content of more than 100 ppm into waters within 50 miles of land. Beyond that distance vessels were free to discharge oil without restriction. The Convention lacked any requirements for mechanical monitoring of discharges, namely because suitable technology did not yet exist. Consequently, crews were forced to verify whether discharges exceeded the 100 ppm standard by visual inspection. A 1962 IMO amendment adopted stricter discharge standards (ships of over 20,000 gross tons, built after a specified date, were prohibited from discharging oil anywhere at sea, except for safety reasons) and increased the coastal prohibition zone to 100 miles. The IMO amended the convention again in 1969. The amendment formally adopted the load-on-top system (LOT) and prescribed new discharge limits (60 liters per mile to a

80 An attempt was made in 1926 to enact an international treaty dealing with marine prevention; however, it never entered into force.
maximum of 1/15,000 of the ship's cargo-carrying capacity." The convention contained the traditional prescriptive and enforcement authority, granting the flag State exclusive authority to prescribe standards and investigate and prosecute alleged discharge violations on the high seas. Coastal states were prohibited from investigating or prosecuting unlawful discharges occurring outside the seaward limits of the territorial sea (at the time generally three miles). Within the territorial sea and internal waters their inspection was limited to the examination of the oil record book. The convention required all vessels to maintain an oil record book and to log the transfer or discharge of oil, including illegal discharges. Under Article IX (2) of the convention, a properly certified log entry was "admissible in any judicial proceedings as evidence of the facts stated in the entry." Needless to say, ship officers were not likely to incriminate themselves by logging illegal discharges. Coastal States and port States were obligated to forward any alleged violation of the Convention's discharge standards to a vessel's flag State for prosecution. Upon receiving such information, flag States were obligated to conduct an investigation and to initiate proceedings if the investigation provided evidence of guilt. Finally, flag States were obligated to forward to the IMO and reporting states information regarding the results of any judicial proceedings.\footnote{Ibid., pp. 27-29.} \footnote{OILPOL 54/69, supra note 89, article IX.} \footnote{Ibid., article X(2).} \footnote{Ibid.} \footnote{Ibid.}
The Convention provided no explicit prescriptive or enforcement authority to ports States. However, article XI, recognized the traditional rights of coastal states and port states to prescribe and enforce standards within their jurisdiction (i.e., territorial seas and internal waters). Thus, coastal States and port States could implement more stringent legislation within their ports and, subject to the right of innocent passage, territorial waters.

Compliance with OILPOL 54/69 can be characterized as dismal for two reasons: (1) the dearth of suitable compliance mechanisms, and (2) the failure of most flag States to enforce the Convention’s requirements. The lack of suitable mechanical detection equipment and heavy reliance on the oil record book generally precluded any hope of either detecting or prosecuting a discharge violation outside of port. Coastal State enforcement efforts proved to be ineffective, as few states had the necessary resources to conduct adequate surveillance activities within their territorial sea. Moreover, determining the oil content of an effluent was nearly impossible on the open ocean. Consequently, the vast majority of violations where detected in ports or inland waters. However, many flag States failed to prosecute alleged violations forwarded from other states, and, even if they did, few reported the results of their proceedings to IMO or the initiating state, as required by the Convention.

97 R. M'Gonigle and M. Zacher supra note 78, pp. 291-223.
98 Ibid., p. 220.
With minor exception, attempts by various nations to enhance the Conventions enforcement provisions failed. For example, British and French delegates to a 1962 conference proposed that states be given the right of in-port inspection. The British proposal limited boardings to only those vessels where incriminating information had been received, while the French proposal demanded the right to board any vessel. Both proposals were soundly defeated by on the grounds that they interfered with the autonomy of individual states. At the 1969 conference the British proposal fared somewhat better, being adopted as a nonbinding IMO Assembly resolution.

4.2.2 MARPOL 73/78

In 1973, the International Conference on Marine Pollution convened in London under the auspices of the IMO to draft a new convention to replace the OILPOL 54/69. In November of 1973, the Conference adopted the International Convention for the Prevention of Pollution from Ships. In 1978, the International Conference on Tanker Safety and Pollution Prevention amended the Convention (the 1978 Protocol). The Convention mandates extensive vessel design, construction, equipment, and discharge standards for the following substances:

- **Annex I** Oil
- **Annex II** Noxious Liquid Substances
- **Annex III** Harmful Substances in Packaged Forms, Freight Containers, Portable Tanks or Road and Rail Tank Wagons.
- **Annex IV** Sewage
- **Annex V** Garbage

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89 Ibid., p. 224

In addition, MARPOL 73/78 granted port States for the first time the explicit right to board, detain, and, if necessary, penalize foreign-flag vessels operating in their ports, internal waters, and at offshore terminals for violations of the Convention's standards. In a striking departure from customary international law, the Convention also empowered the port State to investigate (but not prosecute) a contravention of its discharge standards committed by foreign-flag vessels navigating on the high seas and in the jurisdictional zones of another State. The following discussion provides a summary of the powers granted to the port State under the MARPOL 73/78.

Under the Convention, the port State may inspect a foreign-flag vessel in a port or at an off-shore terminal to determine compliance with the Convention's design, construction, and equipment standards.\textsuperscript{181} The inspection, however, is limited to verifying whether a vessel has a valid International Oil Pollution Prevention Certificate (IOPP) and other applicable documents. [Note: Among other things, the Convention requires the flag State to (1) periodically inspect its vessels, and (2) issue IOPP certificate, which certifies that a vessel is in compliance with Convention standards.] If there are "clear grounds" for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of the certificate or the ship does not have a valid certificate,

\textsuperscript{181} MARPOL 73/78, supra note 7, article 5(2).
the port State may physically inspect the vessel. If the ship is found unfit, the port State is then obligated to prevent it from sailing “until it can proceed to sea without presenting an unreasonable threat of harm to the marine environment.” However, the ship may be allowed to leave port or an off-shore terminal to sail to the nearest shipyard for repair.

Additionally, a port State may deny a foreign ship entry into a port or off-shore terminal if it is found to be in violation of the Convention’s standards. If a port State denies a vessel entry into a port or offshore terminal or finds that it does not carry a valid certificate, or takes action against the ship for noncompliance with the conventions design, construction, or equipment standards, it must notify the applicable representative of the flag State. Additionally, the port State is obligated to require ships of non-party States to comply with the Convention’s standards.

The Convention also empowers the port State to board a foreign-flag vessel in a port or at an offshore terminal to investigate a contravention of the Conventions discharge standards. In a dramatic departure from traditional international law, the Convention grants the port State the authority to board a foreign-flag vessel in a port or at an offshore terminal for the purpose of conducting an

\[102\text{ Ibid.}\]
\[103\text{ Ibid.}\]
\[104\text{ Ibid.}\]
\[105\text{ Ibid., article 5(3).}\]
\[106\text{ Ibid., article 5(4).}\]
\[107\text{ Ibid., article 6}\]
investigation of an alleged unlawful discharge occurring in its EEZ or on the high seas.\textsuperscript{108} This was a major victory for coastal States and port States. Previously, under customary international law, their jurisdiction was, with certain exceptions, limited to their internal waters and territorial sea. However, they did not achieve a complete victory.

Under the Convention, the flag State retained the exclusive right to prosecute violations occurring in the EEZ and on the high seas. The Convention requires the coastal State and the port State to forward their investigations to the flag State for prosecution in such cases.\textsuperscript{109}

In addition, the port State was granted the right to investigate a contravention of the Conventions discharge standards occurring in the jurisdictional zones of another state if so requested by that state.\textsuperscript{110} Any such request, however, must be accompanied with sufficient evidence that the ship has committed an unlawful discharge. The port State is obligated to forward a report of its investigation to the party requesting it and to the vessel’s flag State.

MARPOL 73/78 gave the port State the explicit right to prosecute foreign-flag vessels voluntarily within a port or at an offshore terminal for violations of the Convention’s design, construction, equipment, and discharge standards.\textsuperscript{111} With the exceptions noted above, a port State may upon discovering a violation either initiate proceedings under its

\textsuperscript{108} Ibid., article 6(2).
\textsuperscript{109} Ibid.
\textsuperscript{110} Ibid., article 6(5).
\textsuperscript{111} Ibid., article 4.
own laws or furnish the information and evidence to the flag State for prosecution." Upon receiving such information, the flag state must initiate an investigation and, upon competition of that investigation, inform the port State and the IMO of the action taken. Finally, the flag State can, at any time, assume jurisdiction over a case involving one of its vessels. Upon request, the port State must forward any evidence collected during its investigation to the flag State and is then prohibited from further action.

Although the Convention accorded States the right to investigate discharge violations occurring outside their territorial sea, the flag State retained the exclusive right to prosecute such violations occurring in the EEZ and on the high seas. Many coastal States concerned about the reluctance of some flag States to investigate or prosecute violations aboard their ships were not satisfied with this arrangement. Instead, they wanted the right to prosecute foreign-flag vessels for violations occurring outside their territorial sea, even if that meant stopping and boarding vessels at sea. On the other hand, maritime states sought to preserve traditional high seas navigational freedoms. During the 1973 conference, the concept of port State enforcement was introduced as a compromise between these divergent interests. Under this concept, the port state could prosecute any vessel voluntarily in a port for violations of the Convention's discharge standards committed in the EEZ and on the high seas. The proposal was an attractive alternative

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112 Ibid., article 4(2).
113 Ibid., article 4(3).
114 R. M'Gonigle and M. Zacher, supra note 78, p. 231.
to extending the jurisdiction of the coastal State beyond the territorial sea, possibly as far as 200 miles. However, it was defeated, in part, due to concerns by some maritime states that it would increase costs and lead to delays in port. Its defeat meant that the flag State retained exclusive authority to prosecute its vessels for violations occurring outside the territorial sea.

4.2.3 THE 1982 UN CONVENTION ON THE LAW OF THE SEA

The 1982 UN Convention on the Law of the Sea gave the port State and the coastal State broad new prescriptive and enforcement powers with respect to the regulation of pollution from ships. The major enforcement innovation of the Convention was the adoption of the concept of port State enforcement. This concept, essentially the same one rejected at the 1973 International Conference on Marine Pollution, empowered the port State to investigate and prosecute foreign-flag vessels for violations of international discharge standards committed on the high seas or in the jurisdictional zones of another state.

The debate between the right of the coastal State to protect its shores and adjacent waters from pollution and freedom of navigation became a key issue at the Law of the Sea Conference. As they did during the 1973 International Conference on Marine Pollution, coastal States demanded increased enforcement powers, particularly within the newly created EEZ. However, the threat that this posed to freedom

115 Ibid., p. 232.
116 Ibid., p. 249.
of navigation made this enforcement alternative unacceptable to many maritime powers.\textsuperscript{117} In a compromise, the Convention granted the coastal State certain limited enforcement powers, while it bestowed significant new enforcement authority on the port State.\textsuperscript{118} The convention empowered the port State with the authority to board foreign-flag vessels within its ports or at an off-shore to investigate and, if necessary, prosecute violations of international pollution discharge standards occurring on the high seas or in the jurisdictional zones of another state. This was seen as a far more attractive and safer alternative to stopping and boarding ships at sea.

The following discussion provides a summary of the prescriptive and enforcement powers accorded the port State and the coastal State under the Convention.\textsuperscript{119} It should be noted that the 1982 Convention on the Law of Sea is not yet in force and, therefore, it is not yet binding, except for those provisions recognized as being declaratory.

\textbf{4.2.4 PRESCRIPTIVE AUTHORITY}

Under the Convention, the port State retained its traditional rights to prescribe national standards within its internal


\textsuperscript{118} Ibid.

waters. It must notify foreign-flag vessels and the "competent international organization" of its requirements.

In the territorial sea, the coastal State may prescribe national rules and regulations for discharge standards which exceed international standards. It may also prescribe construction, design, and equipment standards. However, the Convention prohibits the coastal State from enacting standards that exceed "generally accepted international rules or standards." Thus, the coastal State cannot enforce more stringent national standards, a stipulation placed in the Convention to preserve the right of innocent passage.

In the EEZ, the coastal State may prescribe "laws and regulations for the prevention, reduction, and control of pollution from vessels conforming to and giving effect to generally accepted international rules and standards established through the competent international organization or general diplomatic conference." The coastal State may not prescribe discharge standards or construction, design, and equipment standards that exceed "generally accepted international rules or standards."

120 UN Document A/CONF. 62/121, supra note 9, article 25(2), 211(3).
121 Although not specifically stated, IMO is the generally recognized as the competent international organization referred to in the 1982 UN Convention on the Law of the Sea.
122 UN Document A/CONF. 62/121, supra note 9, article 211(3).
123 Ibid., article 211(4); also see A. Boyle, supra note 117, pp. 359-360; S. Meese, supra note 119, p.90.
124 Ibid., articles 21(2) and 211(4).
125 Ibid., article 211(5).
126 Ibid., article 211(5).
127 J. Bernhardt, supra note 119, pp.278-280; S. Meese, supra note 119, p. 90.
4.2.5 ENFORCEMENT AUTHORITY

The Convention bestowed upon the port State and the coastal State broad new powers with respect to the enforcement of national and international vessel-source pollution standards. Under the Convention, the port State retained the power to investigate, detain, and prosecute foreign-flag vessels in its internal waters for violations of national and international pollution laws. Additionally, when a foreign-flag vessel is voluntarily within a port or at an offshore terminal, a State may institute proceedings in respect of any violation of national or international laws committed within its territorial sea or EEZ.

In the territorial sea, the coastal State may physically inspect a foreign-flag vessel navigating within that zone when there are clear grounds for believing that it committed a violation of a national or international pollution law or standard. Where the evidence indicates that a violation occurred, it may detain the vessel and institute proceedings.

Coastal State powers are more limited in the EEZ. Their authority to board, detain, or prosecute a foreign-flag vessel suspected of violating a national or international pollution law in the EEZ is keyed to the degree of environmental harm resulting from such a violation.

128 UN Document A/CONF. 62/121, supra note 9, article 220 (1-8).
129 Ibid., article 220 (1).
130 Ibid., article 220(2).
131 A. Boyle, supra note 117, p. 364.
When there are clear grounds for believing that a vessel violated a national or international pollution law in the EEZ, the coastal State may require it "to give information regarding its identity and port of registry, its last and its next port of call and other relevant information required to establish whether a violation occurred." The coastal State may not physically inspect the vessel unless the following two conditions are present. First, there must be clear grounds to believe that it committed a violation that resulted in a substantial discharge, causing or threatening significant pollution of the marine environment. Second, the vessel has failed to provide information regarding its identity and port of registry, its last and its next port of call and other relevant information required to establish whether a violation has occurred. The coastal State may only detain and prosecute a vessel when a violation resulted in a discharge causing major damage or threat of major damage to the coastline or related interests of the and coastal State, or to any resources of it territorial sea or EEZ. The coastal State may board a vessel suspected of committing a violation in the EEZ while the vessel is navigating in either its EEZ or territorial sea.

Finally, States may upon their own initiative or at the request of any party detain a foreign-flag vessel within one of their ports or off-shore terminals for violations of international standards relating to seaworthiness if that

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132 UN Document A/CONF. 62/121, supra note 9, article 220(3)
133 Ibid., article 220(5).
134 Ibid., article 220(6).
violation threatens damage to the marine environment.135

4.2.6 PORT STATE ENFORCEMENT136

As noted above, the concept of port State enforcement empowers the port State to investigate and prosecute a foreign-flag ship voluntarily within its port or at an offshore terminal for violations of international discharge standards occurring on the high seas or in the jurisdictional zones of another state. Article 218 of the Convention provides:

Enforcement by port States

1. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may undertake investigations and, where the evidence so warrants, institute proceedings in respect of any discharge from that vessel outside the internal waters, territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization or general diplomatic conference.

2. No proceedings pursuant to paragraph 1 shall be instituted in respect of a discharge violation in the internal waters, territorial sea or exclusive economic zone of another State unless requested by that State, the flag State, or a State damaged or threatened by the discharge violation, or unless the violation has caused or is likely to cause pollution in the internal waters, territorial sea or exclusive economic zone of the State instituting the proceedings.

3. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State shall, as far as practicable, comply with requests from any State for investigation of a discharge violation referred to in paragraph 1, believed to

135 Ibid., article 219.
have occurred in, caused, or threatened damage to the internal waters, territorial sea or exclusive economic zone of the requesting State. It shall likewise, as far as practicable, comply with requests from the flag State for investigation of such a violation, irrespective of where the violation occurred.

4. The records of the investigation carried out by a port State pursuant to this article shall be transmitted upon request to the flag State or to the coastal State. Any proceedings instituted by the port State on the basis of such an investigation may, subject to section 7, be suspended at the request of the coastal State when the violation has occurred within its internal waters, territorial sea or exclusive economic zone. The evidence and records of the case, together with any bond or other financial security posted with the authorities of the port State, shall in that event be transmitted to the coastal State. Such transmittal shall preclude the continuation of proceedings in the port State.

Under Article 218, port State enforcement competence is limited to the investigation and prosecution of foreign-flag vessels suspected of discharging pollutants (in violation of international discharge standards) on the high seas or in the internal waters, territorial sea, or EEZ of another state. This includes accidental or operational discharges of oil, noxious and hazardous substances in bulk or packaged form, sewage, and garbage. A port State may not initiate enforcement action against a foreign-flag vessel (under this article) for a violation of international design, equipment, or manning standards when the violation occurred on the high seas, although it may do so under other articles of the Convention if such a violation is discovered while a vessel is within its own or another states internal waters, territorial sea, or EEZ. Under this article, a port State may only initiate enforcement action against a foreign-flag
vessel when it is voluntarily within one of its ports or at an off-shore terminal. Thus, a port State cannot compel a vessel on the high seas to proceed to one of its ports.

If a violation has occurred within the internal waters, territorial sea or EEZ of another State, the port State may investigate and, if appropriate, institute proceedings only if requested to do so by the coastal State, flag State, or other State damaged by the discharge. The port State, however, is not obligated to comply with the request and may in fact decline to take action. Lastly, a coastal State may preempt a port State’s investigation or proceeding should it choose to pursue a case in its own courts.

4.2.7 Safeguards

In order to preclude possible abuses by port States (and Coastal States) the Convention provides a number of safeguards. The following paragraph summarizes the Convention’s significant safeguards:

- ports States must facilitate the hearing of witnesses and the collection and admission of evidence;

- enforcement may only be conducted by duly authorized officials and clearly marked government vessels or aircraft;

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137 UN document A/CONF. 62/121, supra note 9, article 218(2).
139 UN Document A/CONF. 62/121, supra note 9, article 218(4); J. Bernhardt, supra note 119, p. 287.
140 Ibid., articles 223-233.
141 Ibid., article 223.
142 Ibid., article 224.
• enforcement activities shall not endanger the safety of navigation, create a hazard, or place a vessel in an unsafe port or anchorage or expose the marine environment to risk;\footnote{Ibid., article 225.}

• states shall not unduly delay a foreign-flag vessel;\footnote{Ibid., article 226 (1)(a).}

• physical inspections shall be limited to an examination of certificates and other required documents unless there are clear grounds for believing that the condition of the vessel or its equipment does not substantially correspond with the certificates; the contents of such documents are not sufficient to confirm or verify a suspected violation; or the vessel is not carrying valid certificates and records;\footnote{Ibid.}

• ships must be released upon posting the proper bond or other appropriate financial security, unless its release would present an unreasonable threat of damage to the marine environment;\footnote{Ibid., article 226 (b).}

• states shall not discriminate against vessels of any other state;\footnote{Ibid., article 227.}

• port State legal action must be suspended "upon the taking of proceedings to impose penalties in respect of corresponding charges by the flag State within six months of the date on which proceedings were first instituted, except (1) when those proceedings relate to a case of major damage, and (2) the flag State has repeatedly disregarded its obligation to enforce effectively the applicable international rules and standards;\footnote{Ibid., article 228.}

• only monetary penalties may be imposed for violations;\footnote{Ibid., article 230.}
states are liable for damage or loss if their enforcement measures are unlawful or unreasonable.\textsuperscript{130}

4.3 ANALYSIS
Prior to the 1970s, the regime for enforcing international pollution prevention standards was largely ineffective due, in part, to the exclusive reliance on flag State enforcement. Since the 1970s, however, a number of international treaties have reinforced and strengthened the enforcement regime by (1) strengthening flag State obligations and (2) expanding port State and coastal State competence over foreign-flag vessels with respect to vessel-source pollution.

The most innovative change has been the development of the port State enforcement regime under the 1982 UN Convention on the Law of the Sea. This concept departs radically from the traditional doctrine of international law that gave the flag State exclusive jurisdiction to prosecute its ships for offenses committed on the high seas. The proposed regime, however, poses a number of significant challenges to its effective implementation. First, it remains to be seen whether port states will be willing to investigate and prosecute violations occurring beyond the limits of their sovereignty, particularly when they pose no threat to their waters. Moreover, some port States may be unwilling to press charges for such violations for fear of economic losses. A port State with a reputation for aggressively prosecuting foreign vessels may find that fewer vessels are willing to call at its ports, causing loss of revenues. Second, the

\textsuperscript{130} Ibid., article 232.
detection, investigation, and prosecution of discharge violations requires a significant expenditure of time, effort, and money. To fulfill their responsibilities port States will need an administrative infrastructure, trained personnel, and equipment such as airplanes and ships. With the exception of certain developed States, few port States have the ability to implement such programs. Who will provide financial aid and training to countries that cannot afford to implement port State enforcement programs? Finally, the new regime could also subject shipowners and crews to a multitude of jurisdictions exercised by port States having different cultures and judicial systems.
CHAPTER 5 CONCLUSIONS

In the past twenty years, port State enforcement competence has undergone a dramatic expansion, as evidenced in a number of international agreements, national laws, and port State practices. The port State enforcement regime provides an effective, practical means of ensuring that all vessels comply with international safety and pollution prevention standards. It is, however, too early to judge whether the new regime has improved compliance with these standards or reduced the number of substandard ships. It is still in an embryonic stage and there is a large variance in the aggressiveness and capability of the various national port State inspection programs. Moreover, the failure of the majority of Contracting Parties to submit reports to the IMO, as required by SOLAS and MARPOL, precludes a comprehensive analysis of the regime's effectiveness. Nevertheless, the port State enforcement regime has played (and will continue to play) an increasingly important role in improving safety of life at sea and reducing vessel-source pollution.

National port State control programs appear to operate independently with little interaction or coordination, with the exception of Paris MOU member states. This has promoted inconsistency among the various programs and diminished the overall effectiveness of the port State regime. Moreover, it subjects shipowners and crews to a multitude of jurisdictions exercised by port States having different cultures, policies,
and judicial systems. The IMO has only recently begun to harmonize the efforts of individual state programs most notably by encouraging regional port State control programs. However, the organization must do more to coordinate and standardize the various State programs, particularly at the international level. First, it must enhance its ability to collect, analyze, and disseminate information on substandard ships. The sharing of such information among port States would allow them to focus their efforts and resources on these ships. Second, the use of nonbinding resolutions to promulgate inspection policies promotes inconsistency among the various port State programs. The organization should develop inspection policies that are binding on all nations. Finally, developing states will need greater financial help, training, and technical assistance to enable them to implement effective port State enforcement program. Although the IMO presently provides this assistance, its efforts have been hampered by funding problems. Developed states will need to provide greater funding to ensure that these assistance programs continue to be available.

The enhancement of the port State jurisdiction regime does not completely address the more critical concern that of the failure certain flag States to exercise control over their vessels. The question of how to raise the standards of flag States is outside the scope of this paper, but it is plain that raising the level of compliance is only part of the problem. The other, more important part, lies in improving the standard of the management of shipping companies and the quality and conscientiousness of those involved with the sea.
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