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Protecting the Marine Environment from Vessel-Source Pollution: UNCLOS III and Beyond

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Protecting the Marine Environment from Vessel-Source Pollution: UNCLOS III and Beyond

Daniel Bodansky*

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INTRODUCTION

Historically, regulation of vessel-source pollution has engendered conflict between states seeking to protect their coastal waters by adopting strict environmental controls (coastal states) and states with significant naval, commercial, or both maritime interests (maritime states) who view coastal state environmental regulation as a threat to traditional rights of innocent passage and freedom of navigation. The vessel-source pollution provisions of the 1982 U.N. Convention on the Law of the Sea (the Convention or UNCLOS III) seek to resolve this conflict by defining more precisely the jurisdictional rights and responsibilities of states. However, although the Convention is less than a decade old, its compromises on environmental jurisdiction are already beginning to show signs of strain. At two recent negotiations (one on the control of transboundary movements of hazardous wastes, the other on specially protected areas in the Caribbean) the conflict between coastal and maritime states over vessel-source pollution resurfaced. Although their differences were ultimately papered over, the debate was extremely contentious and

1. Maritime states are states with navies or large merchant fleets under their control. KARI HAKAPÄÄ, MARINE POLLUTION IN INTERNATIONAL LAW 69 (1981).

2. See generally id. at 68-71; R. MICHAEL M'GONIGLE & MARK W. ZACHER, POLLUTION, POLITICS, AND INTERNATIONAL LAW 241-51 (1979). For further discussion, see infra note 20 and accompanying text.


threwted the success of both negotiations. Unless states cooperate to develop stronger standards regarding vessel-source pollution, the likelihood will grow that coastal states will take actions to protect their environment that go beyond the Convention, thereby undermining one of the primary purposes of UNCLOS III, namely to create a stable regime for the world's oceans.

Although this article critiques UNCLOS III's provisions on vessel-source pollution, the Convention does provide a constitutional framework for the development and implementation of marine environmental standards. First, it proclaims a number of general obligations relating to the protection of the marine environment, including broad obligations to protect and preserve the marine environment and to minimize marine pollution, and more specific obligations to cooperate on a global or regional basis to formulate and elaborate environmental standards, notify other states of "imminent danger" of pollution damage, develop joint

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contingency plans for responding to pollution incidents, cooperate in scientific research and information exchanges, provide scientific and technical assistance to developing states, monitor the risks and effects of pollution, and perform environmental assessments. Second, UNCLOS III sets forth the duties and jurisdiction of states with respect to each source of marine pollution, including not only vessel-source pollution, but also pollution from land-based activities, seabed activities, and atmospheric sources.

9. UNCLOS III, supra note 3, arts. 197-200, 202, 204, 206. The utility of these general obligations is difficult to assess, although they have become a staple of many environmental agreements. See, e.g., Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Mar. 24, 1983, T.I.A.S. 11085, 22 I.L.M. 227 (entered into force Oct. 11, 1986); 1979 Convention on Long-Range Transboundary Air Pollution, Nov. 13, 1979, T.I.A.S. No. 10541, 18 I.L.M. 1442; Vienna Convention for the Protection of the Ozone Layer, Mar. 22, 1985, 26 I.L.M. 1529. Because of their generality, they would be difficult to enforce even if effective dispute settlement mechanisms existed. Nevertheless, they may have a significant hortatory—even moral—effect. Like human rights norms in the past 40 years, see Robert Drinan, CRY OF THE OPPRESSED: THE HISTORY & HOPE OF THE HUMAN RIGHTS REVOLUTION 3-6 (1987), these environmental obligations may help to reorient international expectations about what is and is not acceptable and thereby alter the “environment” of incentives and costs within which states operate.

10. With respect to specific sources of marine pollution, the Convention acts as a framework convention. See 4 COMMENTARY, supra note 7, at 21. Rather than undertake the complex regulatory task of developing standards, the Convention sets forth the general duties of states to establish, prescribe, and enforce environmental standards. For each source of marine pollution, UNCLOS III requires that states “shall establish”—or, with respect to some pollution sources, “endeavour to establish”—international standards to prevent, reduce, and control marine pollution. Compare UNCLOS III, supra note 3, arts. 208(5), 211(1), 21 I.L.M. at 1310 (imposing a duty to “establish” standards for seabed activities and vessel-source pollution) with id. arts. 207(4), 210(4), 212(3), 21 I.L.M. at 1310-11 (imposing a duty to “endeavour to establish” standards for land-based sources, ocean dumping, and atmospheric pollution). See generally id. art. 197, 21 I.L.M. 1306 (general obligation to cooperate, either “directly or through competent international organizations,” to formulate and elaborate international rules, standards, and recommended practices and procedures for the protection and preservation of the marine environment). This can be done either through the “competent international organization(s)” or by diplomatic conference. In addition, states must prescribe legislation (again depending on the type of pollution) that either “has” at least the same effect as, “no less effective than,” or “takes into account” the relevant international standards. Cf. Bernhardt, supra note 6, at 275 (meaning of “no less effective” unclear); Robert McManus, Environmental Provisions in the Single Negotiating Text, in LAW OF THE SEA: CONFERENCE OUTCOMES AND PROBLEMS OF IMPLEMENTATION 269, 272-73 (Edward Miles & John K. Gamble, Jr. eds., 1976) (same). Compare UNCLOS III, supra note 3, art. 211(2), 21 I.L.M. 1310 (flag states must prescribe vessel-source pollution laws and regulations that “shall have at least the same effect as” international standards) with id. arts. 208(3), 210(6), 21 I.L.M. at 1310 (states must prescribe laws regarding seabed activities and ocean dumping that are “no less effective than” international standards) and id. arts. 207, 212(1), 21 I.L.M. at 1310-11 (states must “take[e] into account” international standards on land-based sources and atmospheric pollution). The level of international acceptance of a standard needed to trigger these prescriptive obligations varies with the type of pollution. Compare UNCLOS III, supra note 3, arts. 207(1), 212(1), 21 I.L.M. at 1310-11 (land-based sources and atmospheric sources: “internationally agreed rules, standards and recommended practices and procedures”) (emphasis added) with id. art. 208, 21 I.L.M. at 1310 (sea-bed activities: “international rules, standards and recommended practices and procedures”) and id. art. 210(4), 21 I.L.M. at 1310 (ocean dumping: “global and regional rules, standards and recommended practices and procedures”)) and
The vessel-source pollution provisions of UNCLOS III have become the reference point for virtually all discussions of marine environmental jurisdiction and, although the Convention is not yet in force, have arguably become norms of customary international law. Moreover, these environmental provisions are likely to come under increased scrutiny and assume even greater importance should the disputes over the seabed mining provisions of the Convention be resolved. Thus far, these disputes have stood in the way of ratification by many advanced industrialized countries, including the United States. The U.S. Congress recently rejected several international conventions dealing with oil spills on the grounds that they were too weak. Unless environmentalists are satis-


fied that UNCLOS III adequately protects the oceans, vessel-source pollution could emerge as a new obstacle to U.S. ratification.

This article begins with a brief introduction to the problem of vessel-source pollution and discusses the role of flag, coastal, and port state jurisdictions (part I). It then reviews the law prior to UNCLOS III and explores the changes made by the Convention, suggesting that in many respects UNCLOS III retained the preexisting jurisdictional rules (part II). The article then critiques UNCLOS III by illustrating both its ambiguities and the ways in which it favors maritime over coastal state interests (part III). The conclusion of the article argues that additional rules and standards, both substantive and jurisdictional, are needed to protect the marine environment and forestall unilateral coastal state action (part IV).

I.
REGULATING VESSEL-SOURCE POLLUTION

Vessel-source pollution accounts for approximately twelve percent of all marine pollution, as compared to land-based and atmospheric sources (seventy-seven percent), ocean dumping (ten percent), and offshore production (one percent). The bulk of vessel-source pollution results from routine operational discharges, such as washing cargo tanks or disposing of sewage and garbage. In contrast, despite the public prominence of incidents such as the Exxon Valdez oil spill, marine casualties are responsible for less than a quarter of all vessel-source pollution.


17. The flag state is the state where a ship is registered and whose flag it flies. ROBERT L. BLED SOE & BOLES LA W A. BOCZEK, THE INTERNATIONAL LAW DICTIONARY 206 (1987). The coastal state is the state off whose coast a vessel is located, and the port state is the state in whose port a delinquent vessel is located at the time of enforcement. See 4 COMMENTARY, supra note 7, at 260-61; Van Reenen, supra note 10, at 23 n.75 ("port state jurisdiction" is jurisdiction based solely on the presence of the vessel in port).


Vessel-source pollution traditionally has been a source of conflict between maritime and coastal interests. Coastal states have pushed for stricter environmental standards and greater authority over vessels in their coastal waters. Maritime states have tried to protect their military and commercial interests in free navigation by arguing that vessels should be subject to flag state control. A partial compromise has been to recognize greater authority of states over foreign vessels in their ports.

International law has addressed the problem of vessel-source pollution in two ways: first, by establishing international vessel-source pollution standards that serve as an alternative to coastal state regulation; and second, by setting forth rules governing the jurisdiction of flag, coastal, and port states.

Beginning with the 1954 Oil Pollution Convention (OILPOL), states have collaborated to develop a large body of international rules and standards relating to vessel-source pollution, both through binding legal agreements and nonbinding recommendations or codes. The fo-

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20. See supra note 2. This conflict between maritime and coastal interests can occur not just between states but within a single state, since many states have both types of interests. For example, both the United States and the United Kingdom are major naval and shipping powers with long coastlines. Sometimes internal conflicts between maritime and coastal interests can spill over into the international arena, causing a state to act inconsistently. The United States, as a coastal state, has threatened unilateral action, but, as a maritime state, has sought to protect traditional freedoms of navigation. See M'Gonigle & Zacher, supra note 2, at 126-30, 282. Compare infra note 241 and accompanying text (example of U.S. asserting greater coastal state jurisdiction) with infra note 236 and accompanying text (example of U.S. opposing coastal state assertion of jurisdiction).

21. See Hakapää, supra note 1, at 70.

22. See generally id.


24. The principal international agreements relating to vessel-source pollution are:


Load Lines Convention—the International Convention on Load Lines, opened for signature
rum for negotiating and establishing these international standards has generally been the International Maritime Organization (the IMO), a specialized agency of the United Nations which reflected shipping interests until recently, but now embraces coastal and more general environmental interests as well.

The development of these international rules and standards has been motivated by a variety of factors—coastal states’ interest in protecting their waters, maritime states’ interest in the safety of navigation, and a concern of states generally for the marine environment. But, in large part, the development has resulted from a desire by maritime states to forestall unilateral coastal state regulation. Maritime states have ar-

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Other organizations that play a significant role in the establishment of vessel-source pollution standards include the Comité Maritime International (CMI) (the international association of national maritime law associations, which serves as a forum for shipowners and shippers) and the International Association of Classification Societies. Id. at 66-67.

27. See M’GONIGLE & ZACHER, supra note 2, at 277-78, 305-13.

28. Both of the principal marine environment agreements, OILPOL and MARPOL, were adopted in part to reduce the threat of unilateral coastal state action. See M’GONIGLE & ZACHER, supra note 2, at 111-12, 130, 141-42.
gued that the international nature of shipping makes uniform international standards imperative. Allowing coastal states to establish national standards would lead to a "patchwork quilt" of potentially conflicting regulations which vessels traveling from one jurisdiction to another would find difficult to know and obey. National regulations would thus impede ocean commerce, which currently accounts for approximately ninety-five percent of all international trade.

Despite the development of international vessel-source pollution standards, however, implementation of these standards has been largely the responsibility of individual states, since the international system lacks effective enforcement machinery. This raises a number of jurisdictional questions: To what extent must states implement international pollution standards? What other states have discretion to implement those standards? To what extent may states establish more stringent environmental standards if they believe the internationally agreed-upon standards are inadequate?

Unlike international vessel-source pollution standards, which have been established almost exclusively by international agreement, the jurisdictional rights and duties of states have been defined primarily by customary international law. The 1958 Law of the Sea Conventions.

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30. Fitch, supra note 29, at 169 (national standards relating to the construction, design, equipment, and manning of vessels could "greatly impede the flow of world ocean commerce").


32. M'GONIGLE & ZACHER, supra note 2, at 219 (enforcement is a "sad chapter in the history of international politics").

33. Jurisdictional issues have been extremely important since the origins of the modern law of the sea in the seventeenth century and were central for writers such as Grotius, Suarez, and Vattel. See Forest L. Grieves, Classical Writers of International Law and the Environment, 4 ENVTL. AFF. 309, 310-11 (1975).

34. CHURCHILL & LOWE, supra note 31, at 245 (international law relating to marine pollution "contained almost wholly in treaties").

35. Customary international law is, along with treaties and general principles, one of the three main sources of international law. It is created by consistent and uniform state practice, which is followed out of a sense of legal obligation. See MARK W. JANIS, AN INTRODUCTION TO INTERNATIONAL LAW 35-38 (1988). For general treatises on the customary law of the sea, see C. JOHN COLOMBOs, THE INTERNATIONAL LAW OF THE SEA (6th ed. 1967); MYERS S. McDougal & WILLIAM T. BURKE, THE PUBLIC ORDER OF THE OCEANS: A CONTEMPORARY INTERNATIONAL LAW OF THE SEA (reissued ed. 1987); DANIEL P. O'CONNELL, THE INTERNATIONAL LAW OF THE SEA (I.A. Shearer ed., 1982). International agreements establishing vessel-source pollution standards often contain jurisdictional provisions which, between the parties to the conventions, supplement the customary norms. For example, both OILPOL
adopted at the First U.N. Conference on the Law of the Sea, in part reflected the customary norms on jurisdiction prior to UNCLOS III. These jurisdictional norms have arguably been modified and replaced by much more detailed rules contained in UNCLOS III, through a process of customary lawmaking that occurred as a result of its negotiation and widespread compliance with its provisions.

This section lays the groundwork for the subsequent analysis in part II of the jurisdictional rules that existed prior to and in UNCLOS III. First, the section reviews the different varieties of vessel-source pollution standards (section A). Second, it analyzes the three basic types of jurisdiction—prescriptive, enforcement, and adjudicative (section B). Finally, it discusses the concepts of flag, coastal, and port state jurisdiction (section C).

A. Vessel-Source Pollution Standards

Initially, it is useful to distinguish three general types of vessel-source pollution standards: (1) discharge standards; (2) construction, de-
sign, equipment, and manning standards; and (3) restrictions and regulations related to navigation. Discharge standards regulate the release of pollutants (for example, by defining the maximum permissible releases of oil, sewage, or garbage) from vessels into the environment. Although discharges can be accidental, discharge standards generally are directed at nonaccidental, operational discharges such as routine tank cleaning and ballasting operations, since accidents are nonpurposive and hence not amenable to direct regulation. The principal international discharge standards are contained in the International Convention and Protocol for the Prevention of Pollution from Ships (MARPOL).

Construction, design, equipment, and manning (CDEM) standards relate to ongoing qualities of a vessel such as whether it has a single or double hull, what equipment it carries, and the qualifications and training of its crew. These standards can:

38. MARPOL defines "discharge in relation to oil or to an oily mixture" as "any discharge or escape howsoever caused" from a ship. The term does not include dumping under the London Dumping Convention, supra note 8 or seabed mineral activities. MARPOL, supra note 24, art. 2(3), 12 I.L.M. at 1320. The first international convention to establish discharge standards was OILPOL, supra note 23. See 1 GREGORIOS J. TIMAGENIS, THE INTERNATIONAL CONTROL OF MARINE POLLUTION 5 (1980). In its original form, OILPOL prohibited intentional discharges of oil and oily mixtures (above a specified concentration) by larger ships within 50 miles of shore. Amendments in 1962 expanded the prohibited zone from 50 to 100 miles and applied the discharge prohibition to smaller ships, and 1969 amendments prohibited oil discharges above 60 liters per mile anywhere on the high seas. See generally M'GONIGLE & ZACHER, supra note 2, at 88-142; Yoram Dinstein, Oil Pollution by Ships and Freedom of the High Seas, 3 J. MAR. L. & COM. 363 (1972). OILPOL has now been supplanted by MARPOL, which contains annexes setting forth detailed regulations governing discharges of oil (annex I), noxious liquid substances carried in bulk (annex II), harmful substances carried in packaged form (annex III), sewage (annex IV), and garbage (annex V). 1 TIMAGENIS, supra, at 12, 397-456. Annexes I, II, and V are currently in force. Status of Multilateral Conventions and Instruments in Respect of which the International Maritime Organization or Its Secretary-General Performs Depositary or Other Functions, International Mar. Org., at 73, U.N. Doc. J/2735/Rev.5 (1990). Discharge standards are established for U.S. waters by the Federal Water Pollution Control Act, 33 U.S.C.A. §§ 1321-1387 (West 1986 & Supp. 1991), and the Act to Prevent Pollution from Ships, 33 U.S.C.A. §§ 1901-1912 (West 1986 & Supp. 1991), which implements MARPOL.

39. See MARPOL, supra note 24, art. 2(3), 12 I.L.M. at 1320 (defining "discharge" as "any escape howsoever caused").

40. MARPOL, supra note 24.

41. In addition to establishing discharge standards, MARPOL also contains construction, design, and equipment standards. See, e.g., MARPOL, supra note 24, annex I, reg. 13, 12 I.L.M. at 555 (requiring segregated ballast tanks for most vessels), reg. 16, 12 I.L.M. at 1356 (requiring oily water separating and oil discharge monitoring equipment), regs. 22-24, 12 I.L.M. at 1362-67 (setting limits on cargo tank sizes). See generally 2 TIMAGENIS, supra note 38, at 430-38, 443-44, 447, 451. Other international construction, design, and equipment standards are contained in SOLAS, supra note 24, which contains safety requirements for ship construction, operation, and equipment (SOLAS is the latest in a line of conventions dealing with safety at sea inspired originally by the sinking of the Titanic); and the Load Lines Convention, supra note 24. International crewing and manning standards are contained in the Minimum Standards Convention, supra note 24, and the STCW Convention, supra note 24. Finally, CDEM standards are also contained in nonbinding IMO resolutions, recommendations, and codes. See 1 MANKABADY, supra note 25, at 84-91.
improve the safety of navigation generally, thereby reducing the like-
lihood of accidents that result in pollution (crew training and naviga-
tion equipment, for example, help reduce the risk of groundings and
collisions);\footnote{42}

- minimize the consequences of such accidents (construction and de-
  sign features can reduce the likelihood of structural failures and con-
tain the dispersal of pollutants in the event a structure fails);\footnote{43}

- facilitate the implementation of discharge standards (sewage and gar-
bage discharge standards, for example, may be possible only if ade-
quate onboard storage facilities exist for wastes);\footnote{44} or

- allow monitoring of discharge standards (for example, through equip-
  ment that automatically records discharges).\footnote{45}

Unlike discharge violations, which are discrete events that occur at a
particular time and place, violations of CDEM standards persist until the
deficiencies are corrected and accompany the vessel wherever it goes—
including a coastal state’s waters or port.

Finally, navigation standards relate to the movement of the ship it-
self.\footnote{46} Like CDEM standards, they help prevent pollution from occurring in
the first place by reducing the likelihood of maritime accidents or
minimizing the environmental effects of accidents. At the international
level, navigation standards have been limited to ship routing measures,
traffic separation schemes, speed limits, and general safety measures.\footnote{47}

\footnote{42. See Andrew W. Anderson, National and International Efforts to Prevent Traumatic
accidents are apparently due to human error. GESAMP, supra note 18, at 32; see also GOLD,
supra note 19, at 132 (according to IMO estimates, 90% of all marine pollution incidents are
due to human error).

43. Canada, for example, authorizes the Governor in Council to require all vessels within
100 miles of its northern coast to carry oil spill containment equipment. Arctic Waters Pollu-
The Arctic Waters Pollution Act and the Right of Self-Protection, in INTERNATIONAL ENVI-
RONMENTAL LAW 140 (Ludwik A. Teclaff & Albert E. Utton eds., 1974). Similarly, double
bottoms or hulls may, in the event of accident, be more likely to contain hazardous cargoes
than single hulls. See generally Anderson, supra note 42, at 1007-09. The Oil Pollution Act of
1990 requires double hulls for U.S. flag vessels and vessels calling at U.S. ports. Oil Pollution

44. E.g., MARPOL, supra note 24, annex I, reg. 16, 12 I.L.M. at 1356 (oily water
separators necessary to implement oil discharge standards); annex IV, reg. 3, 12 I.L.M. at 1426
(inspections of optional sewage equipment); annex V, reg. 4, 12 I.L.M. at 1436 (optional food
disposal equipment).

45. E.g., id., annex I, reg. 16, 12 I.L.M. at 1356 (oil monitoring discharge equipment).

46. See generally Anderson, supra note 42, at 1014-18, 1028-35; Edgar Gold & Douglas
SEA: STATE PRACTICE IN ZONES OF SPECIAL JURISDICTION 156, 164-71 (Thomas A. Clingan,
Jr. ed., 1979) (arguing for greater coastal state jurisdiction to prevent pollution); Ton IJlstra,
Maritime Safety Issues Under the Law of the Sea Convention and Their Implementation, in
IMPLEMENTATION OF THE LAW OF THE SEA CONVENTION THROUGH INTERNATIONAL NE-
gotiations 216 (Alfred H.A. Soons ed., 1990); THE U.N. CONVENTION ON THE LAW OF
eds., 1987).

47. See General Provisions on Ships’ Routeing, IMCO Res. A.378(X) (Nov. 14, 1977),}
Some states, however, have established more comprehensive vessel traffic management systems in heavily congested areas of their coastal waters. These vessel management systems impose requirements relating to such matters as radio communications between ships and with shore; advance notice of arrival and departure; preclearance for entry into the traffic control zone; routine position reporting; reporting of a vessel's cargo, draft, and length; pilotage; and even directing vessels from shore.48

B. Jurisdiction over Vessel-Source Pollution

Implementation of these various kinds of vessel-source pollution standards involves the exercise of three types of jurisdiction: jurisdiction to prescribe, enforce, and adjudicate.49 Prescriptive jurisdiction is jurisdiction to mandate a vessel's compliance with particular pollution standards. Enforcement jurisdiction is jurisdiction to prevent or punish violations of those standards, for example, by investigating the offense, detaining the boat, or arresting, prosecuting, and sanctioning the offender. Adjudicative jurisdiction is the power of a court or administrative tribunal to hear a case against a vessel or person. When a state enacts a law requiring all vessels calling at its ports to have double bottoms, it is asserting prescriptive jurisdiction. When it arrests a vessel with a single bottom, it is exercising its enforcement jurisdiction. And if it brings a proceeding against the vessel in its courts, it is exercising adjudicative jurisdiction.

reprinted in 1 NAGENDRA SINGH, INTERNATIONAL MARITIME LAW CONVENTIONS 36 (1983) (recommending compliance by governments with specified general provisions on ships' routing); COLREG, supra note 24, rule 6, 28 U.S.T. at 3471 (safe speed), rule 10, 28 U.S.T. at 3476 (traffic separation schemes). Traffic separation schemes (TSS's) were first used on the Great Lakes in the early 20th century. The IMO has played the leading role in reviewing traffic separation schemes since 1967, when a TSS for the Dover Channel was adopted. Traffic separation schemes generally consist of one-way-only lanes separated by a buffer zone. See generally G. Plant, International Traffic Separation Schemes in the New Law of the Sea, 9 MARINE POL'Y 134 (1985); SOLAS, supra note 24, annex, ch. V, reg. 8(b); 1986 IMO, supra note 24, at 338, makes the IMO the sole international body competent to establish traffic separation schemes. Routing schemes adopted by the IMO are contained in IMO, SHIPS' ROUTEING (5th ed. 1984) (looseleaf IMO publication on file with author). For examples of internationally established speed limits, see, e.g., CHURCHILL & LOWE, supra note 31, at 188 & n.12 (discussing IMO Recommendations for the Baltic Straits and the Strait of Malacca).

48. See, e.g., Anderson, supra note 42, at 1030 n.193 (describing vessel control system in Puget Sound); EASTERN CANADA TRAFFIC ZONE REGULATION (ECAREG), CANADA SHIPPING ACT REGISTRATION SOR/78-669 (Aug. 22, 1978), reprinted in Gold & Johnston, supra note 46, app. II, at 185-90. One of the first vessel traffic management systems was adopted for the St. Lawrence Seaway. Id. at 169.

49. Cf. 2 RESTATEMENT, supra note 12, § 401 (distinguishing prescriptive, enforcement, and adjudicative jurisdiction). The rules relating to prescriptive jurisdiction are set forth in § 5 of part XII of UNCLOS III, supra note 3, arts. 207-212, 21 I.L.M. at 1310-11, while the rules relating to enforcement and adjudicative jurisdiction are set forth in id. § 6, arts. 213-222, 21 I.L.M. at 1311-13. The Convention does not draw a clear distinction between enforcement and adjudicative jurisdiction.
As a general rule, international law recognizes only limited bases for the exercise of prescriptive jurisdiction. States may regulate activities that (1) take place within or have a direct effect on their territory (territorial jurisdiction), (2) are committed by their nationals (nationality jurisdiction), or (3) threaten their security (protective jurisdiction). In addition, some states claim jurisdiction to regulate activities that harm their nationals (passive personality jurisdiction), although this basis of jurisdiction has not been widely accepted. Finally, certain types of acts are considered so serious that any state may proscribe them, regardless of whether the state has a connection with the activities or individuals involved (universal jurisdiction). Piracy is the classic example of such an act, but more recently, universal jurisdiction has also been recognized for certain terrorist and human rights offenses such as hostage taking and torture.

Enforcement jurisdiction, like prescriptive jurisdiction, is an aspect of sovereignty and may be exercised by a state within its territory. However, unlike prescriptive jurisdiction, which can be exercised by several states concurrently, a state's enforcement jurisdiction within its territory is exclusive. Thus, while a state may prescribe standards for its citizens living in another country, it may enforce measures in the other state's territory only with that state's consent.

Prescriptive and enforcement jurisdiction also differ in how they localize the exercise of jurisdiction. In the context of prescriptive jurisdiction—


51. 2 Restatement, supra note 12, § 402.

52. See, e.g., Mann, supra note 50, at 78-79. Recently, the passive personality principle has been increasingly recognized for certain terrorist offenses, 2 Restatement, supra note 12, § 402 cmt. g & reporters' note 3, apparently on the rationale that, in terrorist cases, the victim's state of nationality may be the only state willing to prosecute the offender. The United States has asserted prescriptive jurisdiction on the basis of the passive personality principle in the Antiterrorism Act of 1990, 18 U.S.C.A. § 2231 (West Supp. 1991), which makes it a crime to kill or cause serious bodily injury to U.S. nationals outside the territory of the United States.


55. 2 Restatement, supra note 12, § 432.

56. Id. § 432 cmt. b & reporters' note 1.
tion, the important variable is where the act takes place or its effects are felt. Pursuant to the territoriality principle, a state may prescribe norms for acts taking place in, or having a direct effect on, its territory. In contrast, enforcement jurisdiction generally depends on the location of the actor at the time of the enforcement measures.

The enforcement process has a number of stages. The initial and often most difficult problem is determining what happened. With respect to vessel-source pollution, this can be accomplished through self-reporting requirements, passive surveillance, inspection of the vessel's documents, or direct inspection of the vessel and its crew and cargo (which, if the vessel is at sea, involves stopping and boarding it).

If the vessel is found to have committed a violation, the next step is to determine the appropriate recourse. For vessels in the enforcing state's coastal waters, one possibility is simply to exclude them (or, if a vessel is seeking access to its waters, to deny access). Alternatively, the enforcing state may arrest and detain the vessel, institute criminal proceedings, and impose sanctions.

If a state institutes criminal proceedings against a vessel for a pollution offense, it is exercising adjudicative as well as enforcement jurisdiction. Adjudicative jurisdiction is the power of courts or administrative tribunals to adjudicate the rights and responsibilities of persons or entities. It can be either part of the criminal enforcement process (criminal jurisdiction) or between private litigants (civil jurisdiction). Like U.S. law, international law conditions adjudicative jurisdiction on the existence of minimum contacts between the defendant and the forum.

These three types of jurisdiction are interrelated in that both enforcement and adjudicative jurisdiction depend on a prior exercise of prescriptive jurisdiction. Enforcement or adjudication against a vessel is possible only if the vessel has committed some legal transgression by failing to comply with a prescribed standard. Thus, the enforcement provisions of UNCLOS III refer to enforcement of "applicable" rules and


58. For discussion of the permissibility of excluding a vessel from a coastal state's waters, see infra note 128.

59. 2 Restatement, supra note 12, § 421.
standards. If a rule or standard has not been made applicable to a vessel by law, the vessel is under no obligation to comply with it.

But while enforcement and adjudication both depend on prescription, the state that prescribes a standard and the state that enforces or adjudicates that standard need not be one and the same. This is quite clear in civil lawsuits for money damages, where a court may use choice of law rules to apply foreign law and the forum state need not have prescriptive jurisdiction. Some states take the same approach to criminal jurisdiction, and are willing to bring prosecutions for violations of another state’s law, or even for violations of international norms directly. In contrast, other states tie prescriptive and criminal law, the vessel is under no obligation to comply with it.

60. E.g., UNCLOS III, supra note 3, arts. 217(1), 218(1), 220(1), 21 I.L.M. at 1312, 1313.
63. Whether international standards apply directly to individuals or activities without the mediation of national laws (i.e. whether international law directly prescribes standards for individuals) has long been a source of controversy. Compare Convention on the Prevention and Punishment of the Crime of Genocide, opened for signature Dec. 9, 1948, art. I, 78 U.N.T.S. 277, 281 (entered into force Jan. 12, 1951) (confirming genocide as a “crime under international law”) with Torture Convention, supra note 54, arts. 1, 2, S. TREATY DOC. No. 20, at 19, 20 (defining “torture” and requiring parties to outlaw torture under their national law). Consider, for example, the crime of piracy. Traditionally, pirates have been considered hostis humani generis, enemies of all humankind, who may be prosecuted by any state. See generally ALFRED P. RUBIN, THE LAW OF PIRACY (1988); Harvard Research in International Law, Draft Convention on Piracy, 26 AM. J. INT’L L. SUPP. 739 (1932). But the exact juridical character of piracy has been less clear. Everyone agrees that international law sets the standard: it defines the nature of “piracy.” See United States v. Smith, 18 U.S. (5 Wheat.) 153 (1820) (incorporating international law definition of piracy). But commentators and courts have disagreed about whether international law also plays a prescriptive role. Some claim that piracy is an offense against “the law of nations,” implying that international law not only sets the substantive standard of piracy but makes that standard applicable to individuals. Others argue that international norms relating to piracy are directed at states, not individuals. According to this view, international law requires states to exercise universal jurisdiction over pirates by outlawing piracy under their national law. Piracy, however, remains at root a national law violation. A person committing piracy violates and is punished under this national prohibition, not the international standard. Harvard Research in International Law, supra, at 751-60. See generally 2 RESTATEMENT, supra note 12, § 404 reporters’ note 1 (contrasting the two views of piracy).

These differing perspectives on the prescriptive function of international law implicate broader theoretical issues about the relation of international law both to national law, see generally 1 DANIEL P. O’CONNELL, INTERNATIONAL LAW 38-46 (2d ed. 1970), and to the individual, see generally CARL A. NØRGAARD, THE POSITION OF THE INDIVIDUAL IN INTERNATIONAL LAW (1962)—issues well beyond our purview. For our purposes, the important point is that there is no intrinsic reason why, if states wish to do so, they may not adopt an international standard (such as the prohibition on piracy) that directly binds individuals and is enforceable in domestic courts, without any domestic implementing legislation. Indeed, in the early days of the Republic, before the Supreme Court ruled that federal criminal prosecutions
enforcement jurisdiction more closely together, by prosecuting violations of only their own criminal laws. For these states, a lack of prescriptive jurisdiction implies a lack of criminal enforcement jurisdiction, except to aid another state by investigating an offense or extraditing the offender.65

C. Flag, Coastal, and Port State Jurisdiction

Vessel-source pollution often has international dimensions. Who may exercise jurisdiction when a vessel flies a foreign flag or causes pollution on the high seas? Which state or states may impose standards and exercise criminal or civil jurisdiction when international standards are violated? On the one hand, since vessel-source pollution often occurs in or affects the waters or territory of coastal states, coastal states have a strong interest in prescribing and enforcing standards. On the other hand, the traditional principle of freedom of navigation implies that flag states should have primary jurisdiction over vessels. Reconciling these competing coastal and maritime interests has been one of the central problems for the law of the sea.66

could be brought only for statutory violations, United States v. Hudson & Goodwin, 11 U.S. (7 Cranch) 32, 34 (1812); United States v. Coolidge, 14 U.S. (1 Wheat.) 415 (1816), violations of international law were prosecuted in federal courts. See, e.g., Henfield's Case, 11 F. Cas. 1099 (C.C.D. Pa. 1793) (No. 6360).

The repeated references in UNCLOS III to "violations" of international rules and standards, e.g., UNCLOS III, supra note 3, arts. 217(4), 218(1), 220(3), 21 I.L.M. at 1312, 1313, suggest that these rules and standards are intended to apply directly to vessels. If international rules and standards applied to vessels only when prescribed by municipal law, then the more appropriate terminology would be to say not that an act is "prohibited by" or "not in conformity with" the international rule or standard, but that it "violates" national law. See id. art. 220(1), 21 I.L.M. at 1313 (a coastal state may "institute proceedings in respect of any violation of its laws and regulations adopted in accordance with this Convention, or applicable international rules and standards"); 4 COMMENTARY, supra note 7, at 272 (while punishment of "violations" in article 218 "may presuppose a transformation of the international rules and standards into norms of national law for procedural purposes . . . in substance the actions of the port state . . . must be directed towards violations of the applicable international rules and standards"). But see id. at 215 ("'Enforcement' [in art. 213] means enforcement by national authorities applying their national laws and regulations . . . .").

64. The United States is one example. See 2 RESTATEMENT, supra note 12, § 422(1) cmt. a & reporters' note 3 (federal courts may adjudicate criminal cases only on basis of U.S. law). If a state wishes, for whatever reason, to enforce another state's law or a rule of international law, it must first assimilate that law into its own law by an exercise of prescriptive jurisdiction. HENRY J. STEINER & DETLEV F. VAGTS, TRANSNATIONAL LEGAL PROBLEMS 787-88 (3d ed. 1986); Michael Akehurst, Jurisdiction in International Law, 46 BRIT. Y.B. INT'L L. 145, 179 (1972-73); cf. 2 RESTATEMENT, supra note 12, § 432 cmt. a (international law prohibits states from taking measures to enforce a standard if they lack jurisdiction to prescribe that standard).

65. 2 RESTATEMENT, supra note 12, § 431 cmt. a.

66. See 1 O'CONNELL, supra note 35, at 270-71 ("[M]ore excitement has been aroused for the last one hundred years about the threat of coastal State sovereignty to navigation than about any other aspect of the Law of the Sea . . . .").
1. Flag State Jurisdiction

Flag state jurisdiction at sea, like territorial jurisdiction on land, has traditionally been the core form of jurisdiction and, as such, has not required special justification.\(^6\) Flag state jurisdiction is necessary, given the principle of freedom of the high seas since on the high seas a vessel must be subject to the authority of some state to preserve order.

Perhaps because of its unquestioned status, the exact juridical basis of flag state jurisdiction has always been somewhat murky. According to one theory, a vessel is a floating part of the flag state's territory, and therefore flag state jurisdiction is a type of territorial jurisdiction.\(^6\) Others view flag state jurisdiction as an exercise of nationality jurisdiction,\(^6\) since a vessel possesses the nationality of its flag.\(^7\) Still others justify flag state jurisdiction on pragmatic grounds.\(^7\) In any event, the only limitation placed by customary international law on flag state jurisdiction is the principle that states have exclusive enforcement jurisdiction within their territory.\(^7\) For this reason, a flag state may not ordinarily take enforcement measures against its vessels in another state's territorial sea or internal waters, since this would infringe on the coastal state's sovereignty.\(^7\)

\(^6\) See generally H. Meyers, The Nationality of Ships 33-40 (1967) (asserting that since 1955, the scope of flag state jurisdiction has been criticized as "insufficiently clear").

\(^6\) See S.S. Lotus (Fr. v. Turk.), 1927 P.C.I.J. (ser. A) No. 10, at 25; Meyers, supra note 67, at 13-14. This was sometimes referred to as the "floating island" theory. See Dinstein, supra note 38, at 368 (rejecting the floating island theory); I.A. Shearer, Problems of Jurisdiction and Law Enforcement Against Delinquent Vessels, 35 Int'l & Comp. L.Q. 320, 321 (1986). According to the most extreme proponents of the floating island theory, coastal states may not assert jurisdiction over a vessel even when it is in the coastal state's territorial sea or internal waters, since it is not, as a legal matter, within the coastal state's territory. The floating island theory has been rejected by both British and United States courts. See Chung Chi Cheung v. The King, 1939 App. Cas. 160, 174 (appeal taken from H.K.); Cunard S.S. Co. v. Mellon, 262 U.S. 100, 123 (1923) (U.S. vessel not part of U.S. territory for purposes of prohibition laws); Lam Mow v. Nagle, 24 F.2d 316 (9th Cir. 1928) (person born on board U.S. ship not born "in the United States" for citizenship purposes); see also 2 Restatement, supra note 12, § 502 reporters' note 3.

\(^6\) See, e.g., Lauritzen v. Larsen, 345 U.S. 571, 585 (1953) (flag state jurisdiction justified "on the pragmatic basis that there must be some law on shipboard, that it cannot change at every change of waters, and no experience shows a better rule than that of the state that owns her").

\(^7\) See supra note 56 and accompanying text.

\(^7\) See Churchill & Lowe, supra note 31, at 253.
In discussions concerning flag state jurisdiction, the question has not been its permissibility but rather its adequacy. Critics argue that since pollution on the high seas or in another state's coastal waters normally does not affect the flag state, the flag state has little incentive to prescribe environmental standards or take adequate enforcement measures. Moreover, since shipowners have wide latitude in choosing where to register their vessels, they can choose a "flag of convenience" with comparatively lax environmental regulation or enforcement.

2. Coastal State Jurisdiction

Coastal states suffer most directly from marine pollution and therefore have the greatest interest in preventing vessel-source pollution. As a result of this interest, as well as their general concern with the adequacy of flag state jurisdiction, coastal states have claimed the right to exercise prescriptive and enforcement jurisdiction over vessel-source pollution. This claim is largely based on the territoriality principle, since coastal states have sovereignty over their internal waters and territorial sea. But broader coastal state jurisdiction has on occasion been asserted on the grounds that pollution beyond the territorial sea may affect the coastal state or threaten its security.

Since coastal state jurisdiction may impinge on the ability of vessels to navigate freely, rules pertaining to coastal state jurisdiction must balance coastal states' interest in controlling pollution against maritime states' interest—and the interest of the world at large—in free navigation.

In general, the balancing of coastal and maritime interests has been undertaken in broad geographic terms, by dividing the oceans into different zones: internal waters; the territorial sea; the contiguous zone;

74. Fitch, supra note 29, at 167; Baker et al., supra note 69, at 242, 243.
75. A flag of convenience or "open registry" state is a state that allows its flag to be flown by ships with which it has no genuine connection. Churchill & Lowe, supra note 31, at 206-08 & n.4; Boleslaw A. Boczek, Flags of Convenience: An International Legal Study 2-6 (1962). These states may try to attract registrations by imposing less strict environmental or safety rules, or by failing to enforce international environmental regulations. Churchill & Lowe, supra note 31, at 206, 254; Boczek, supra, at 38-39.
76. According to one study, 86.6% of tanker collisions and 91.2% of groundings occur in coastal waters. Anderson, supra note 42, at 1024 n.170 (referring to J. Porcelli & V. Keith, U.S. Coast Guard, An Analysis of Oil Outflows Due to Tanker Accidents 5 (1973)).
77. See infra part II.B.
78. Because a very high percentage of international trade is seaborne, see supra note 31 and accompanying text, all trading nations have an interest in navigational freedoms, not only maritime nations.
79. Internal waters are waters landward of the coastal state's baseline (e.g., bays, river mouths, estuaries, ports). UNCLOS III, supra note 3, art. 8, 21 I.L.M. at 1276; see also V.D. Degan, Internal Waters, 17 Neth. Y.B. Int'l L. 3, 4 & n.3 (1986); 2 Restatement, supra note 12, § 511 cmt. e.
and now, in UNCLOS III, the exclusive economic zone (the EEZ.)
Each zone has its own allocation of jurisdiction between coastal and flag states. As one goes further out to sea, the balance of interests between coastal and maritime states changes: the coastal state's interest in protecting the environment weakens and the maritime state's interest in freedom of navigation grows. For both reasons, coastal state jurisdiction diminishes. Thus, in their internal waters, states have plenary powers, in their territorial sea, their authority is limited by the regime of innocent passage; and beyond the territorial sea, vessels have high seas navigation rights.

3. Port State Jurisdiction

Port state jurisdiction is generally defined as jurisdiction based solely on the presence of the vessel in port. If a pollution incident occurs in or affects a state's coastal waters, the state may exercise jurisdiction as

80. The territorial sea is a band of water seaward of the coastal state's baseline, over which the coastal state is sovereign. See Territorial Sea Convention, supra note 36, arts. 1-2, 15 U.S.T. at 1608, 516 U.N.T.S. at 206-08; UNCLOS III, supra note 3, art. 2, 21 I.L.M. at 1272. See generally PHILIP C. JESSUP, THE LAW OF TERRITORIAL WATERS AND MARITIME JURISDICTION (1927). One of the major issues left unresolved by the Territorial Sea Convention was the permissible breadth of the territorial sea. See MCDougal & Burke, supra note 35, at 451-52. UNCLOS III establishes a maximum breadth of 12 miles. UNCLOS III, supra note 3, art. 3, 21 I.L.M. at 1272.

81. The contiguous zone is a narrow band of water seaward of a state's territorial sea in which the state has limited jurisdiction to protect its territorial sea. Territorial Sea Convention, supra note 36, art. 24, 15 U.S.T. at 1612, 516 U.N.T.S. at 220; UNCLOS III, supra note 3, art. 33, 21 I.L.M. at 1276. See generally A.V. Lowe, The Development of the Concept of the Contiguous Zone, 52 BRIT. Y.B. INT'L L. 109 (1981). UNCLOS III made two changes to the contiguous zone provision of the 1958 Territorial Sea Convention. It expanded the permissible breadth of the contiguous zone from 12 to 24 miles measured from the baselines of the territorial sea, UNCLOS III, supra note 3, art. 33, 21 I.L.M. at 1276, and implied that if a coastal state has established an exclusive economic zone (EEZ), see infra note 82, the contiguous zone is juridically part of the EEZ rather than the high seas. Compare Territorial Sea Convention, supra note 36, art. 24, 15 U.S.T. at 1612, 516 U.N.T.S. at 220 (specifying that the contiguous zone is a zone of the high seas) with UNCLOS III, supra note 3, art. 33, 21 I.L.M. at 1276 (omitting any reference to juridical character of contiguous zone).

82. The EEZ is an area beyond the territorial sea that may extend up to 200 nautical miles from the baseline of the territorial sea. UNCLOS III, supra note 3, art. 55, 21 I.L.M. at 1280 (definition of EEZ), art. 57, 21 I.L.M. at 1280 (maximum breadth of the EEZ). See generally DAVID J. ATTARD, THE EXCLUSIVE ECONOMIC ZONE IN INTERNATIONAL LAW (1987). Although the EEZ is frequently referred to as the 200-mile EEZ, if a state has a 12-mile territorial sea, the EEZ per se would be at most 188 miles in breadth, since its 200-mile maximum breadth is measured from the same baseline as the territorial sea. Id. at 44.

83. See Bernhardt, supra note 6, at 269 (opposition to coastal state enforcement is "in direct proportion to the offshore distance in which coastal-State enforcement jurisdiction might be invoked").

84. See infra part II.B.1.

85. See infra part II.B.2.

86. See infra part II.B.3.
a coastal state. It acts as a port state if its sole connection with the incident is the delinquent vessel’s presence.87

From a policy standpoint, port state enforcement represents a compromise between coastal and flag state enforcement.88 On the one hand, port states may be more inclined than flag states to enforce environmental norms, since port states are themselves coastal states and, as such, are at risk from substandard and delinquent vessels.89 Port state jurisdiction therefore serves as a useful corrective to inadequate flag state enforcement. On the other hand, port state enforcement is preferable to coastal state enforcement since it interferes much less with freedom of navigation and can generally be performed more safely.90 Stopping and boarding a vessel in transit at sea for inspection purposes directly interferes with the vessel’s movement and can be hazardous, depending on the weather and location.91 In contrast, inspecting a vessel while in port imposes little if any burden on navigation and can be performed safely. Even bringing a proceeding against the vessel does not hinder navigation so long as the vessel is able to go free upon posting bond.92 Only if the port state actually detains the vessel to carry out the investigation or proceeding is there an interference with the vessel’s freedom of movement.93 Moreover, port

87. See supra note 17; 4 COMMENTARY, supra note 7, at 261.
89. A port state is most likely to take enforcement actions if the pollution has harmed the port state itself. Like flag states, port states have less incentive to take enforcement measures with respect to pollution on the high seas or in another state’s coastal waters. See Sonja Boehmer-Christiansen, Marine Pollution Control: UNCLOS III as the Partial Codification of International Practice, 7 ENVTL. POL’Y & L. 71, 73 (1981); George C. Kasoulides, The Port State Enforcement Regime through International Organizations, in IMPLEMENTATION OF THE LAW OF THE SEA CONVENTION THROUGH INTERNATIONAL NEGOTIATIONS, supra note 46, at 422, 431.
91. For example, stopping a vessel in a busy shipping lane to board and inspect it can be quite dangerous. See Kasoulides, supra note 89, at 430. Perhaps for this reason, UNCLOS III places strict limitations on the right of coastal states to investigate foreign vessels at sea. See UNCLOS III, supra note 3, art. 226, 21 I.L.M. at 1314 (limiting inspections to an examination of certificates, records and other required documents, unless the vessel is not carrying valid documents, the documents are insufficient to confirm or verify a suspected violation, or there are clear grounds for believing the documents are inaccurate).
92. UNCLOS III, supra note 3, arts. 220(7), 21 I.L.M. at 1313 (coastal state must allow vessel to proceed if it posts a bond), art. 226(1)(b), 21 I.L.M. at 1314 (release of vessel shall be made promptly subject to reasonable procedures such as bonding or other financial security), art. 292, 21 I.L.M. at 1323 (judicial procedures to ensure prompt release of vessels and crews).
93. Cf: Norman Letalik, Arrest of Vessels and the Law of the Sea, in THE DEVELOPING ORDER OF THE OCEANS, supra note 6, at 687, 695 (because vessels now ordinarily spend less time in port, even port state enforcement actions can have an impact on navigation). But see PORT STATE CONTROL COMM., NETHERLANDS MINISTRY OF TRANSPORT AND PUB. WORKS, 1989 ANNUAL REPORT OF THE MEMORANDUM OF UNDERSTANDING ON PORT STATE CONTROL 22 (the actual number of detentions has increased but remains very low) (on file with author).
states have a direct economic interest in shipping and receiving goods, and therefore they are more likely than coastal states to balance environmental measures against maritime commerce.94

Since by definition a port state has no connection with a pollution offense other than the vessel's presence in port, it cannot prescribe standards on the basis of the territoriality, nationality, protective, or passive personality principles. The only basis for port state prescriptive jurisdiction would be if the universality principle extended to vessel-source pollution, that is, if vessel-source pollution was a universal crime that any state could proscribe.

Because there is little support for this proposition, port state jurisdiction is usually limited to enforcement where the location of the vessel at the time of enforcement (in port) is the key variable. It should be noted, however, that when a port state takes an enforcement measure such as inspecting a vessel to determine whether the vessel has committed a discharge violation on the high seas, the port state is investigating a violation of another state's law, not its own, which it lacks jurisdiction to prescribe.

II

THE VESSEL-SOURCE POLLUTION PROVISIONS OF UNCLOS III

UNCLOS III acts as a framework convention for the problem of vessel-source pollution.95 Rather than undertaking the complex regulatory task of developing vessel-source pollution standards,96 it sets forth the general duties and rights of states to establish, prescribe, and enforce vessel-source pollution standards.

In brief, UNCLOS III requires states to cooperate, either directly or through the "competent international organization" (i.e., the IMO),97 to establish vessel-source pollution standards.98 It then sets forth mini-

94. See Baker et al., supra note 69, at 241-42.
95. 4 COMMENTARY, supra note 7, at 21; Schneider, supra note 16, at 567-68.
96. Compare, for example, the MARPOL standard that oil tankers may not discharge more than 60 liters of oil per nautical mile. MARPOL, supra note 24, annex I, reg. 9(1)(a)(iv), 12 I.L.M. at 1344.
98. UNCLOS III, supra note 3, at 211(1), 21 I.L.M. at 1310; see also id. art. 197, 21 I.L.M. at 1308 (general obligation to cooperate, either directly or through "competent international organizations," to formulate and elaborate international rules, standards, and recommended practices and procedures for the protection and preservation of the marine environment).
mum obligations for flag states to prescribe and enforce vessel-source pollution standards and places limits on the jurisdiction of coastal and port states. While these jurisdictional rules expand the powers of coastal and port states compared with prior customary norms, the states' jurisdictional competence remains subject to substantial restrictions.

A. Flag State Jurisdiction

Traditionally, international law has relied on the flag state to regulate a vessel's activities, including vessel-source pollution. Indeed, prior to UNCLOS III, flag state jurisdiction was generally exclusive beyond the territorial sea. Only flag states could prescribe environmental standards for vessels on the high seas, and only they could stop, board, arrest, and bring prosecutions for violations of those standards.

Despite some expansion of coastal and port state jurisdiction, UNCLOS III preserves the primacy of flag state jurisdiction. The only obligations it imposes to prevent, reduce, and control vessel-source pollution are imposed on flag states; coastal and port states have limited jurisdiction to prescribe and enforce environmental standards, but they are not required to do so. Moreover, flag state jurisdiction is plenary, unlike coastal and port state jurisdiction. Flag states, for example, may prescribe and enforce national CDEM standards and, save in certain "exceptional cases," continue to have exclusive jurisdiction on the high seas. Finally, even when enforcement jurisdiction is concurrent (for

99. Id. art. 211, 21 I.L.M. at 1310 (prescriptive jurisdiction), arts. 217-220, 21 I.L.M. at 1312-13 (enforcement jurisdiction).

100. Cunard S.S. Co. v. Mellon, 262 U.S. 100, 123 (1923); High Seas Convention, supra note 36, art. 6(1), 13 U.S.T. at 2315, 450 U.N.T.S. at 86. The only exceptions to exclusive flag state jurisdiction on the high seas are: (1) the right of approach, which is a corollary of flag state jurisdiction in that it allows states to verify a vessel's right to fly a given flag, id. art. 22(2), 13 U.S.T. at 2318, 450 U.N.T.S. at 92; UNCLOS III, supra note 3, art. 110(2), 21 I.L.M. at 1289; Shearer, supra note 68, at 320; (2) universal jurisdiction over piracy, slave trading, and, in UNCLOS III, unauthorized radio broadcasting, High Seas Convention, supra note 36, art. 22(1), 13 U.S.T. at 2318, 450 U.N.T.S. at 92; UNCLOS III, supra note 3, art. 110(1), 21 I.L.M. at 1289; and (3) the right of self-defense against threats to a state's political security or territorial integrity, see D.W. Bowett, SELF-DEFENSE IN INTERNATIONAL LAW 66-86 (1958). See generally Robert C.F. Reuland, Note, Interference with Non-National Ships on the High Seas: Peacetime Exceptions to the Exclusivity Rule of Flag-State Jurisdiction, 22 VAND. J. TRANSNAT'L L. 1161 (1989).

101. See infra parts II.B-C.

102. See 4 COMMENTARY, supra note 7, at 255.

103. Compare UNCLOS III, supra note 3, art. 211(2), 21 I.L.M. at 1310 (requiring flag state prescription), art. 217(1), 21 I.L.M. at 1312 (requiring flag state enforcement) with id. art. 211(4), (5), 21 I.L.M. at 1311 (coastal state "may" prescribe environmental norms), art. 218, 21 I.L.M. at 1312 (port state "may" undertake proceedings), art. 220, 21 I.L.M. at 1313 (coastal state "may" take limited enforcement measures).

104. See id. art. 211(2), 21 I.L.M. at 1310 (flag state laws and regulations must have "at least" the same effect as generally accepted international rules and standards, implying that flag states may prescribe stricter rules and standards if they choose).

105. Id. art. 92(1), 21 I.L.M. at 1287. "Exceptional cases" include hot pursuit, id. art.
example, over discharge violations that cause major damage to a coastal state's EEZ) flag states may in certain instances preempt enforcement actions by coastal or port states.\textsuperscript{106}

Flag state jurisdiction is, in itself, unobjectionable. The real question is whether it is sufficient to control vessel-source pollution. To address concerns about the adequacy of flag state jurisdiction, attempts have been made to impose stronger legal duties on flag states to prescribe and enforce vessel-source pollution standards. Under OILPOL, MARPOL, and the Minimum Standards Convention, for example, parties must prescribe international standards for their flag vessels,\textsuperscript{107} inspect their ships to ensure that the vessels meet those standards, and bring prosecutions against delinquent vessels, regardless of where the violation occurred.\textsuperscript{108}

Despite these legal requirements, questions remain about the adequacy of flag state implementation.\textsuperscript{109} In part, this can be attributed to the development of flags of convenience, which may not accept international conventions such as MARPOL or be willing or able to enforce these standards adequately.\textsuperscript{110} But enforcement of international pollu-
tion standards has been limited, even by flag states that do accept international environmental conventions. Reporting to the International Maritime Organization on enforcement measures has been spotty at best. Even when flag states take enforcement action, the penalties imposed have often been insufficient to serve as a deterrent.

UNCLOS III attempts to remedy these problems by making the legal obligations of flag states universal. In essence, UNCLOS III incorporates by reference those international standards for the protection of the marine environment, established by the "competent international organization" or general diplomatic conference, which have become "generally accepted," for example, by enunciation in a widely ratified convention. Once a standard emerges and gains the requisite level of international acceptance, then under UNCLOS III a flag state has an obligation to implement the standard through its national laws, regardless of whether the state is a party to the convention establishing the standard. First, they must prescribe legislation that "shall at least have the same effect as" generally accepted international standards. Second, flag states must enforce their own laws as well as enact legis-
tion necessary to implement international standards.\textsuperscript{119} In particular, flag states must:

\begin{itemize}
\item ensure the safety of their vessels with regard to construction, equipment, and seaworthiness;\textsuperscript{120}
\item ensure that masters, officers, and, to the extent appropriate, the crew have proper training regarding the applicable international pollution regulations;\textsuperscript{121}
\item take appropriate measures to ensure that vessels not in compliance with international CDEM standards are prohibited from sailing;\textsuperscript{122}
\item ensure that their vessels are periodically inspected and carry on board internationally required certificates;\textsuperscript{123}
\item investigate alleged violations committed by their vessels, including violations alleged by another state;\textsuperscript{124}
\item institute proceedings for violations of international rules and standards, regardless of where the violation occurs;\textsuperscript{125} and
\item impose penalties adequate in severity to deter violations wherever they occur.\textsuperscript{126}
\end{itemize}

\textbf{B. Coastal State Jurisdiction}

Both prior to and within UNCLOS III, coastal state jurisdiction has been defined in terms of distinct zones of the oceans—internal waters, the territorial sea, the contiguous zone, and more recently, the exclusive economic zone. In examining the jurisdiction of coastal states in each of these zones, this section focuses on the location of the vessel at the time of the pollution incident in considering prescriptive enforcement, and on the location of the vessel at the time of enforcement in considering enforcement jurisdiction. For example, a state’s competence to extend its law to vessels in its territorial sea will be addressed in the section on the territorial sea, while enforcement of these territorial standards in the coastal state’s internal waters will be addressed in the internal waters section.

\textsuperscript{119} See UNCLOS III, supra note 3, art. 217(1), 21 I.L.M. at 1312.
\textsuperscript{120} Id. art. 94(3)(a), 21 I.L.M. at 1287.
\textsuperscript{121} Id. art. 94(4)(c), 21 I.L.M. at 1287.
\textsuperscript{122} Id. art. 217(2), 21 I.L.M. at 1312.
\textsuperscript{123} Id. art. 217(3), 21 I.L.M. at 1312. A similar obligation is found in MARPOL, supra note 24, art. 5, 12 I.L.M. at 1322.
\textsuperscript{124} UNCLOS III, supra note 3, art. 217(6), 21 I.L.M. at 1312. MARPOL, supra note 24, art. 6(4), 12 I.L.M. at 1323, contains a similar obligation.
\textsuperscript{125} UNCLOS III, supra note 3, art. 217(4), 21 I.L.M. at 1312.
\textsuperscript{126} Id. art. 217(8), 21 I.L.M. at 1312. MARPOL, supra note 24, art. 4(4), 12 I.L.M. at 1322, contains a similar obligation.
1. Internal Waters

In its internal waters, a coastal state is sovereign and has plenary prescriptive and enforcement authority, subject only to restrictions accepted by treaty. The rationale for this rule is that since a coastal state may set conditions for entry into its internal waters, a foreign vessel, by entering, implicitly consents to the coastal state's jurisdiction. However, since a coastal state may not deny access to ships in distress, such vessels cannot be deemed to have consented to the coastal state's jurisdiction, and the coastal state's authority is more limited. Moreover, a coastal state's authority may be limited by bilateral treaties of friendship, commerce, and navigation that guarantee port access.

Pursuant to its prescriptive jurisdiction, a coastal state may require vessels in its internal waters or port to comply with international standards, impose national CDEM or discharge standards, or prohibit access by foreign ships altogether, except those in distress. In addition, it may take enforcement actions against vessels in its internal waters or ports to implement its laws. Thus, it may inspect ships for compliance with international CDEM standards, regardless of whether the flag state of the vessel is party to these standards, and it may exercise criminal

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127. For a definition of "internal waters," see supra note 79.
128. The right of port states to deny or condition access by foreign vessels is accepted by most authorities. McDougal & Burke, supra note 35, at 105-08; see Cunard S.S. Co. v. Mellon, 262 U.S. 100, 125 (1923) (U.S. may condition port access on compliance with U.S. laws); Patterson v. Bark Eudora, 190 U.S. 169, 178 (1902) (since U.S. may deny entry altogether, it may establish conditions for entry of foreign vessels into U.S. ports). But see 2 RESTATEMENT, supra note 12, § 512 reporters' note 3, criticized in Burke, supra note 12, at 520-22. Limitations on port state authority are generally viewed as matters of comity, not law. Cunard S.S., 262 U.S. at 124; Wildenhus's Case, 120 U.S. 1, 12 (1887); CHURCHILL & LOWE, supra note 31, at 55 (contrasting Anglo-American view that jurisdiction over vessels in port is complete and limitations purely a matter of comity with French position that coastal state has no jurisdiction over purely internal affairs on foreign ships in port).

133. MARPOL, supra note 24, art. 5, 12 I.L.M. at 1322 (inspection for compliance with CDEM standards), art. 6, 12 I.L.M. at 1323 (inspection for discharge violations); SOLAS, supra note 24, annex, ch. I, reg. 19, S. TREATY DOC. No. 2, at 26 (inspection to verify validity of Passenger Ship Safety Certificate); see CHURCHILL & LOWE, supra note 31, at 217 (these
jurisdiction for violations of its CDEM or discharge standards. Moreover, under MARPOL, a state may even detain unseaworthy vessels in port, despite the impact this has on the vessel's freedom of navigation.

UNCLOS III does not effect any basic change in these rules. Although it treats some areas as internal waters that were not previously considered as such, the coastal state's prescriptive and enforcement jurisdiction in those areas is limited by the same right of innocent passage that applies in the territorial sea. In addition, UNCLOS III resolves any doubt that may have existed about whether coastal states may adopt national CDEM standards for their ports and internal waters by explicitly referring to the possibility of states establishing "particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters."

Finally, a corollary of the extension of coastal state prescriptive jurisdiction to 200 miles is that coastal states have broader enforcement jurisdiction in their internal waters and ports. Prior to UNCLOS III, coastal states could not institute proceedings against vessels in port for

provisions merely consolidate and clarify coastal state competence to inspect vessels in port under customary international law; 1 TIMAGENIS, supra note 38, at 511 (same). Under article 5 of MARPOL, a coastal state may inspect only the certificates of a vessel in port, unless either (1) the vessel does not have certificates, or (2) the certificates are clearly inaccurate. MARPOL, supra note 24, art. 5(2), 12 I.L.M. at 1323.

134. Customary international law permits states to prosecute foreign vessels for breach of a CDEM standard committed in port, see CHURCHILL & LOWE, supra note 31, at 219, and to prosecute vessels in port for violations of pollution standards in the territorial sea. Id. at 254; Lowe, supra note 90, at 625-26. But cf: Patricia Birnie, Enforcement of the International Law for Prevention of Oil Pollution from Vessels, in THE IMPACT OF MARINE POLLUTION, supra note 26, at 95, 99 (OILPOL does not allow prosecutions against a vessel in port even for offenses committed in the port state's waters).

135. UNCLOS III, supra note 3, art. 219, 21 I.L.M. at 1313. Previously, detention of unseaworthy vessels had been permitted under MARPOL, supra note 24, art. 5(2), 12 I.L.M. at 1323, but not OILPOL, supra note 23. The only other basis for detaining a vessel was lack of financial security (generally in the form of a bond) against possible judgment. UNCLOS III, supra note 3, arts. 220(7), 226(1)(b), 21 I.L.M. at 1313, 1314. See generally JESSUP, supra note 80, at 144.

136. UNCLOS III, supra note 3, art. 8(2), 21 I.L.M. at 1272. UNCLOS III results in additional areas being considered internal waters by allowing a coastal state to draw straight baselines where its coastline is deeply indented and cut into or if there is a fringe of islands in the immediate vicinity of the coastline. Id. art. 7, 21 I.L.M. at 1272. For discussion of restrictions on coastal state authority resulting from the right of innocent passage, see infra notes 145-69 and accompanying text.

137. UNCLOS III, supra note 3, arts. 25(2), 211(3), 21 I.L.M. at 1275, 1310. Cf: Wang, supra note 88, at 328 (arguing that this provision could be interpreted as including the consent of the foreign ship to follow the coastal state's national CDEM standards as a prerequisite to a coastal state enforcing its standards). If states do adopt higher standards as a condition of port entry, UNCLOS III requires them to publicize these standards and notify the IMO. UNCLOS III, supra note 3, art. 211(3), 21 I.L.M. at 1311.

138. UNCLOS III, supra note 3, art. 211(5), 21 I.L.M. at 1311.

139. See CHURCHILL & LOWE, supra note 31, at 259.
pollution incidents that occurred beyond their territorial sea, presumably because they had no prescriptive authority and therefore no legal norm to enforce. Under UNCLOS III, coastal states now have authority to prescribe international discharge and CDEM standards for their EEZ. Under UNCLOS III, coastal states now have authority to prescribe international discharge and CDEM standards for their EEZ.140 If a coastal state exercises this prescriptive authority, it may enforce these EEZ standards by instituting proceedings against vessels voluntarily within its ports.141

2. Territorial Sea

In a coastal state's territorial sea, the situation is more complicated. On the one hand, the coastal state is sovereign and thus has general prescriptive and enforcement competence. On the other hand, its authority is circumscribed by the interest of maritime states in free navigation. The right of innocent passage attempts to reconcile these competing interests. Vessels may pass freely through the territorial sea only so long as they do not prejudice the peace, good order, or security of the coastal state. Conversely, coastal states may regulate the passage of ships through their territorial sea, including the establishment of sea

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140. UNCLOS III, supra note 3, art. 211(5), 21 I.L.M. at 1311.
141. UNCLOS III, supra note 3, art. 220(1), 21 I.L.M. at 1313.
142. For definition of "territorial sea," see supra note 80.
144. Limits on coastal state jurisdiction in the territorial sea, although discussed by classical writers on international law, crystallized in the nineteenth century in cases such as Queen v. Keyn, [1876] 2 Ex. D. 63. The exact extent of coastal state jurisdiction in the territorial sea remained uncertain in the latter nineteenth and early twentieth centuries. See Shearer, supra note 68, at 321.
145. Territorial Sea Convention, supra note 36, art. 14, 15 U.S.T. at 1610, 516 U.N.T.S. at 214; UNCLOS III, supra note 3, art. 17, 21 I.L.M. at 1273. See generally Brian Smith, Innocent Passage as a Rule of Decision: Navigation v. Environmental Protection, 21 COLUM. J. TRANSNAT'L L. 49 (1982). Under UNCLOS III, the right of innocent passage also applies in internal waters that were not considered as such prior to UNCLOS III. See supra note 136.
lanes and traffic separation schemes, but they may not hamper innocent passage. In general, UNCLOS III's provisions on the territorial sea clarify but do not fundamentally change the preexisting norms of customary international law reflected in the 1958 Territorial Sea Convention. Prior to UNCLOS III, jurisdiction to prescribe vessel-source pollution standards was apparently included within a coastal state's general prescriptive competence in its territorial sea. This has been confirmed by the 1982 Convention, which specifically permits a coastal state to adopt laws and regulations for its territorial sea relating to "the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof."

The real question regarding coastal state prescriptive jurisdiction in the territorial sea has been whether a coastal state may prescribe only international standards, or whether it may also prescribe national discharge and CDEM standards. This issue was not explicitly addressed by the 1958 Territorial Sea Convention. UNCLOS III effects a Solo-

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146. Article 17 of the Territorial Sea Convention, supra note 36, recognizes that coastal states may enact "laws and regulations relating to transport and navigation," suggesting that coastal states may mandate sea lanes and traffic separation schemes through their territorial sea. COLREG, however, provides for only voluntary coastal state traffic schemes and does not allow compulsory coastal state enforcement, except for vessels that enter the coastal state's internal waters or ports. COLREG, supra note 24, rule 1(d), 28 U.S.T. at 3467; see also Anderson, supra note 42, at 1016, 1032-33 (coastal state may unilaterally prescribe traffic schemes for its territorial sea which do not unreasonably hamper innocent passage); Gold & Johnston, supra note 46, at 177 (same); James D. Morgan, Comment, The Establishment of Mandatory Sealanes by Unilateral Action, 22 Cath. U. L. Rev. 108, 116-18 (1972) (same); Glenn Young, Vessel Traffic Management and Coastal State Enforcement, in LAW OF THE SEA: CONFERENCE OUTCOMES AND PROBLEMS OF IMPLEMENTATION, supra note 10, at 93, 96-97. The United States has adopted vessel traffic schemes pursuant to the Ports and Waterways Safety Act, 33 U.S.C. §§ 1221-1227 (West 1986 & Supp. 1991). These apply to vessels entering U.S. ports, but not to vessels in innocent passage through the U.S. territorial sea. 33 U.S.C. § 1223(d) (1988); 33 C.F.R. § 164.02 (1990).

147. Territorial Sea Convention, supra note 36, art. 15(1); UNCLOS III, supra note 3, arts. 24, 211(4), 21 I.L.M. at 1275, 1311. See M'Gonigle & Zacher, supra note 2, at 204-05 (describing a 1970's initiative defeated in IMCO that would have permitted coastal states to prescribe insurance coverage requirements for ships in territorial sea).

148. This view is suggested by the negotiating history of the 1958 Territorial Sea Convention, see Report of the International Law Commission, U.N. GAOR, 11th Sess., Supp. No. 9, at 20, Commentary 2, 2(b), U.N. Doc. A/3159 (1956) (including laws to protect coastal waters from pollution within coastal state prescriptive competence); Smith, supra note 145, at 68, as well as by MARPOL, which requires coastal states to prescribe standards in areas under their "jurisdiction." MARPOL, supra note 24, at 4(2), 12 I.L.M. at 1322. Although a coastal state's territorial sea is clearly within its "jurisdiction" under MARPOL, Churchill & Lowe, supra note 31, at 253 & n.24; M'Gonigle & Zacher, supra note 2, at 207, MARPOL deferred to UNCLOS III the question of whether a coastal state's jurisdiction extends beyond the territorial sea. MARPOL, supra note 24, art. 9(3), 12 I.L.M. at 1326; Res. 23 of International Conference on Marine Pollution, 1973, IMCO (1974), at 147.

149. UNCLOS III, supra note 3, art. 21(1)(f), 21 I.L.M. at 1274.

150. OILPOL, supra note 23, art. XI, 12 U.S.T. at 2998, 327 U.N.T.S. at 12 (allowing coastal state to take measures within its jurisdiction, but not defining what types of measures
monic compromise by allowing coastal states to prescribe national discharge but not national CDEM standards,\(^151\) apparently on the theory that the latter have a greater impact on innocent passage than the former.\(^152\)

In addition, UNCLOS III clarifies that a coastal state may unilaterally designate sea lanes and traffic separation schemes in their territorial sea with which vessels must comply, even if they are in innocent passage.\(^153\) Although such routing measures may be prescribed only where

\(^{151}\) Compare UNCLOS III, supra note 3, arts. 211(4), 21 I.L.M. at 1274, 1311 (permitting coastal states to adopt laws and regulations to preserve the environment of the coastal state and prevent pollution) with id. art. 211(2), 21 I.L.M. at 1274 (requiring that laws and regulations of coastal states "shall not apply to the design, construction, manning or equipment of foreign ships unless they are giving effect to generally accepted international rules or standards"). States, however, may impose higher CDEM standards as a condition of entry to port and request information from ships in the territorial sea about compliance with port entry requirements, if such information is publicized. Id. art. 211(3), 21 I.L.M. at 1311. In addition, states apparently may impose national CDEM standards in ice covered portions of their territorial sea. Id. art. 234, 21 I.L.M. at 1315; see Churchill & Lowe, supra note 31, at 257. Conversely, in areas of its territorial sea that are straits used for international navigation, a coastal state may adopt only those pollution laws and regulations that give effect to international discharge standards for oil, oily wastes, and other noxious substances. UNCLOS III, supra note 3, art. 42(1)(b), 21 I.L.M. at 1277.

\(^{152}\) See supra notes 29-30 and accompanying text. Since implementation of some discharge standards may necessitate certain equipment (for example, waste retention facilities), MARPOL, supra note 24, annex IV, reg. 8, 12 I.L.M. at 1429 (prohibiting discharges of sewage within four miles of land unless vessel has approved sewage treatment plant), national discharge standards can also affect navigation. Brown, supra note 150, at 213-14. If so, article 24 of UNCLOS III comes into play, which provides that coastal states may not "impose requirements on foreign ships which have the practical effect of denying or impairing the right of innocent passage." UNCLOS III, supra note 3, art. 24, 21 I.L.M. at 1275.

\(^{153}\) UNCLOS III, supra note 3, art. 22(1), 21 I.L.M. at 1274. In designating sea lanes and prescribing traffic separation schemes, the coastal state must take into account IMO's recommendations, but need not obtain its approval, Plant, supra note 47, at 134; see IJlstra, supra note 46, at 220-21; UNCLOS III, supra note 3, art. 22(3), 21 I.L.M. at 1274, except in international straits, id. art. 41, 21 I.L.M. at 1277 (requiring IMO approval for traffic schemes in international straits). A coastal state may prosecute a vessel for failing to comply with its traffic management system in the territorial sea. See Edgar Gold, International Shipping and the New Law of the Sea: New Directions for a Traditional Use?, 20 Ocean Dev. & Int'l L. 
“necessary having regard to the safety of navigation,” it would appear that this language encompasses environmental purposes, since it specifically permits states to require vessels carrying hazardous and noxious cargoes to confine their passage to designated sea lanes.\textsuperscript{154}

With respect to enforcement in the territorial sea, the 1958 Territorial Sea Convention contained detailed provisions which are repeated almost verbatim in UNCLOS III.\textsuperscript{155} If a foreign vessel is not in the process of innocent passage (i.e., if it is “lying in” rather than “passing

\begin{footnotes}
\item[154] UNCLOS III, supra note 3, art. 22(1)-(2), 21 I.L.M. at 1274; see also id. art. 21(1), 21 I.L.M. at 1310 (discussing routing measures “designed to minimize the threat of accidents which might cause pollution of the marine environment”).
\item[155] Compare UNCLOS III, supra note 3, arts. 27-28, 21 I.L.M. at 1275 (criminal and civil jurisdiction) with Territorial Sea Convention, supra note 36, arts. 19-20, 15 U.S.T. at 1611-12, 516 U.N.T.S. at 216-17 (criminal and civil jurisdiction). In brief, the rules governing criminal and civil jurisdiction in UNCLOS III are as follows:

(a) If a foreign vessel commits an act of “wilful and serious” pollution, then its passage through the territorial sea is not innocent, UNCLOS III, supra note 3, art. 19(2)(h), 21 I.L.M. at 1274, and the coastal state may either (i) use necessary force to require the vessel to leave the territorial sea, id. art. 25(1), 21 I.L.M. at 1275, or (ii) bring a criminal or civil proceeding against it under its law. \textit{Id.} Moreover, the coastal state is not limited to imposing monetary penalties, as would normally be the case. \textit{Id.} art. 230(2), 21 I.L.M. at 1315.

(b) If a foreign vessel, while in the coastal state’s territorial sea or internal waters, commits a violation that is not “wilful and serious” (for example, a negligent act), id. art. 19(2)(h), 21 I.L.M. at 1274, the coastal state may, as described below, exercise criminal or civil jurisdiction, including in some cases arrest and prosecution, but may not expel the vessel, since its passage is still innocent.

(c) If the ship is inbound or outbound (i.e., it is heading for or has been in the coastal state’s internal waters or port), the coastal state may exercise civil and criminal jurisdiction generally, including inspection, arrest, and prosecution. \textit{Id.} art. 27(2), 21 I.L.M. at 1275 (criminal jurisdiction), art. 28(3), 21 I.L.M. at 1275 (civil jurisdiction).

(d) If the ship is in lateral passage (i.e. it does not enter the coastal state’s ports or internal waters), criminal jurisdiction may legally be exercised, subject to the limitations noted in (e)-(h) below. However, as a matter of comity, states should refrain from exercising criminal jurisdiction unless the violation harms the coastal state, and should not stop or divert vessels for the purpose of exercising civil jurisdiction. \textit{Id.} arts. 27, 28(1), 21 I.L.M. at 1275.

(e) If the ship is in lateral passage and there are “clear grounds” for believing it has committed a violation in the territorial sea, the coastal state may undertake a physical inspection—normally limited to an examination of the ship’s certificates and records—and, where the evidence warrants, may institute criminal proceedings. \textit{Id.} art. 220(2), 21 I.L.M. at 1313 (this restriction applies only to vessels in lateral passage, since it does not prejudice the rights of a coastal state under part II, § 3, to take measures against inbound and outbound vessels). MARPOL establishes that a coastal state would have clear grounds for suspecting an oil discharge violation if there are “visible traces” of oil observed on or below the surface of the water in the immediate vicinity of the vessel. MARPOL, supra note 24, annex I, reg. 9(3), 12 I.L.M. at 1344. However, the only means by which a coastal state could have “clear grounds” for suspecting a CDEM violation before having conducted an inspection is if it has received a report from an earlier state en route. Cf. Wang, supra note 88, at 322 (noting paradox that coastal state needs “clear grounds” in order to inspect, but can have clear grounds to suspect a CDEM violation only by carrying out the inspection).

(f) If the ship is in lateral passage, the coastal state may arrest a vessel only for civil obligations incurred during or for the purpose of the vessel’s passage. UNCLOS III, supra note 3, art. 28(2), 21 I.L.M. at 1275. This rule, which was first stated in the 1958 Territorial Sea Convention, overruled the result in \textit{Compania de Navegacion Nacional (Panama) v.
through” the territorial sea or engages in acts that render its passage noninnocent), the coastal state’s enforcement jurisdiction is unrestricted and includes the right to exclude the delinquent vessel. Assuming that a vessel is in innocent passage, the coastal state’s enforcement powers may include stopping and boarding the vessel for purposes of investigation, arresting it, and prosecuting violations of the coastal state’s laws. The coastal state may exercise these enforcement powers against vessels that are inbound or outbound, or that, during the


(g) If the vessel is in lateral passage through the territorial sea and is suspected of having committed a violation of the coastal state’s laws while in the EEZ, the coastal state may request information only if it has clear grounds for believing that there has been a violation; it may investigate only if the violation has caused or is threatening severe pollution of the marine environment; and it may arrest the vessel and undertake proceedings only if it has “clear objective evidence” of the violation and the violation has caused or is threatening to cause “major damage to the coastline or related interests of the coastal state.” UNCLOS III, supra note 3, arts. 220(3), (5), (6), 21 I.L.M. at 1313.

(h) If the vessel is in an international strait, the coastal state may arrest the vessel only if it causes or threatens “major damage” to the marine environment of the strait. Id. art. 233, 21 I.L.M. at 1315.

156. See CHURCHILL & LOWE, supra note 31, at 81; M’GONIGLE & ZACHER, supra note 2, at 203.

157. See, e.g., Fitch, supra note 29, at 134.

158. CHURCHILL & LOWE, supra note 31, at 253-54. For a discussion of whether coastal states have investigative powers under MARPOL, see MARPOL, supra note 24, art. 5(2), 12 I.L.M. at 1322; Wang, supra note 88, at 323 (coastal state may investigate vessels in territorial sea only if it has a lawful reason).


160. Territorial Sea Convention, supra note 36, art. 19(2), 15 U.S.T. at 1611, 516 U.N.T.S. at 218 (restrictions on criminal jurisdiction do not apply to outbound vessels); UNCLOS III, supra note 3, art. 27(2), 21 I.L.M. at 1275 (same); Territorial Sea Convention, supra note 36, art. 19(5), 15 U.S.T. at 1612, 516 U.N.T.S. at 218 (restrictions apply only to vessels in lateral passage, i.e., proceeding from a foreign port and passing through the territorial sea without entering internal waters); UNCLOS III, supra note 3, art. 27(5), 21 I.L.M. at 1275 (same); Territorial Sea Convention, supra note 36, art. 20(3), 15 U.S.T. at 1612, 516 U.N.T.S. at 218 (restrictions on civil jurisdiction do not apply to outbound vessels); UNCLOS III, supra note 3, art. 28(3), 21 I.L.M. at 1275 (same). The more liberal rules regarding inbound and outbound vessels are likely a vestige of the time when the regime of innocent passage applied only to ships in lateral passage, not vessels that stopped in port. See CHURCHILL & LOWE, supra note 31, at 69; Solomon Slonim, The Right of Innocent Passage and the 1938 Geneva Conference on the Law of the Sea, 5 COLUM. J. TRANSNAT’L L. 96, 99 (1966). In contrast, the Territorial Sea Convention and UNCLOS III define “innocent passage” as including transit through the territorial sea to and from port. Territorial Sea Convention, supra note 36, art. 14(2), 15 U.S.T. at 1610, 516 U.N.T.S. at 214; UNCLOS III, supra note 3, art. 18(1)(b), 21 I.L.M. at 1273; see Lowe, supra note 90, at 610.
course of lateral passage, commit an offense in the coastal state’s territorial sea.\textsuperscript{161} However, if a vessel is in lateral passage, the coastal state may not assert criminal jurisdiction\textsuperscript{162} or arrest the vessel for the purpose of civil proceedings\textsuperscript{163} for an offense that was committed during a previous passage or outside the coastal state’s territorial sea.\textsuperscript{164}

The main UNCLOS III contribution to this enforcement scheme is to clarify the meaning of innocent passage by listing those acts that render passage noninnocent. The 1958 Territorial Sea Convention did not contain an objective definition of innocent passage,\textsuperscript{165} which made it difficult to determine which particular conditions (for example, CDEM violations or the carriage of hazardous cargoes) rendered passage nonin-

\begin{itemize}
  \item \textsuperscript{161} UNCLOS III, supra note 3, art. 27, 21 I.L.M. at 1275 (coastal state may exercise enforcement powers if consequences of offense in territorial sea affect state or its citizens); compare Lowe, supra note 90, at 625 (coastal state may bring proceedings against vessel in innocent passage for violations of coastal state pollution laws) with Queen v. Keyn, [1876] 2 Ex. D. 63 (early English case striking down prosecution for offense committed by a vessel in the course of innocent passage).
  \item \textsuperscript{162} Territorial Sea Convention, supra note 36, art. 19(5), 15 U.S.T. at 1612, 516 U.N.T.S. at 218; UNCLOS III, supra note 3, art. 27(5), 21 I.L.M. at 1275.
  \item \textsuperscript{163} A coastal state may not arrest a vessel for civil proceedings except for liabilities incurred during the course of passage. Territorial Sea Convention, supra note 36, art. 20(2), 15 U.S.T. at 1612, 516 U.N.T.S. at 218; UNCLOS III, supra note 3, art. 28(2), 21 I.L.M. at 1275. This repudiated the holding of Compañía de Navegación Nacional (Panama) v. United States, 6 R.I.A.A. 382 (U.S.-Pan. Gen. Cl. Comm’n 1933) (upholding coastal state arrest of vessel in territorial sea for collision during previous passage). The relationship is unclear between the Territorial Sea Convention, supra note 36, art. 20(2), 15 U.S.T. at 1612, 516 U.N.T.S. at 218, and the International Convention Relating to the Arrest of Sea-going Ships, May 10, 1952, art. 2, 53 Am. J. Int’l L. 539, 540 (1959) [hereinafter Arrest Convention] (entered into force Nov. 20, 1955). The Arrest Convention permits states to arrest vessels in their “jurisdiction” for civil claims. Id. at 540; see also Letalik, supra note 93, at 690. However, it is ambiguous whether this reference to “jurisdiction” was intended to include a state’s territorial sea or only its ports and internal waters. Shearer, supra note 68, at 329.
  \item \textsuperscript{164} UNCLOS III modifies this aspect of the 1958 Territorial Sea Convention by allowing coastal states to assert criminal jurisdiction over vessels in lateral passage through their territorial sea for discharge offenses committed in the EEZ causing or threatening major damage to the coastline. UNCLOS III, supra note 3, art. 220(3), (5)-(6), 21 I.L.M. at 1313.
  \item \textsuperscript{165} See Territorial Sea Convention, supra note 36, art. 14(4), 15 U.S.T. at 1610, 516 U.N.T.S. at 214 (“Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal state. Such passage shall take place in conformity with these articles and with other rules of international law.”). The 1958 Conference rejected an article drafted by the International Law Commission by which vessel activity that did not comply with coastal state legislation on a wide variety of matters would have automatically triggered a determination of noninnocent passage. See Churchill & Lowe, supra note 31, at 70-71. The final version of article 14(4), however, “clearly does not require the commission of any particular act, or violation of any law, before innocence is lost,” and only violation of a coastal state’s laws pertaining to fishing restrictions in the territorial sea “would necessarily remove innocence, unless the violation actually prejudices the coastal interests.” Id. at 71; Territorial Sea Convention, supra note 36, art. 14(4), 15 U.S.T. at 1610, 516 U.N.T.S. at 214. See generally Slonim, supra note 160, at 105-07 (reporting debate in 1958 conference over whether article 17 of the Territorial Sea Convention requires ships in innocent passage to comply only with coastal state laws that conform with international laws).
\end{itemize}
nocent. UNCLOS III specifies that, with respect to vessel-source pollution, passage is not innocent only if the vessel engages in an "act of wilful and serious pollution contrary to th[e] Convention." The effect of this clarification is to limit the circumstances in which passage can be deemed noninnocent and thereby restrict the coastal state's authority to exclude foreign vessels. For example, because a delinquent "act" is required to render passage noninnocent, passage remains innocent even if a vessel's condition (such as violation of a CDEM standard or carrying a hazardous cargo) poses a grave threat to the coastal environment.

Somewhat surprisingly, this regime governing coastal state enforcement jurisdiction in its territorial sea does not apply to enforcement of a coastal state's EEZ laws and regulations. Instead, enforcement of EEZ laws and regulations in the territorial sea is governed by UNCLOS III's more restrictive provisions on EEZ enforcement jurisdiction. A coastal state's jurisdiction to enforce its EEZ laws and regulations is thus the same, regardless of whether the vessel is navigating in the territorial sea or the EEZ at the time of the enforcement action. Although this could be rationalized in terms of a lesser coastal state interest in protecting the EEZ than in protecting the territorial sea, the extent of coastal state enforcement jurisdiction generally depends more on the strength of the maritime state interest in free navigation than on the coastal state's interest in protecting the marine environment. Thus, when a vessel is in port, where enforcement actions have a relatively slight impact on navigation, the coastal state has broad enforcement authority. That authority is the same, regardless of whether the offense occurred in the coastal

166. See Fitch, supra note 29, at 133-34 (permitting prohibition of passage by ships carrying hazardous cargoes if "prejudicial to [the] good order or security" of the coastal state); GEORGE P. SMITH II, RESTRICTING THE CONCEPT OF FREE SEAS: MODERN MARITIME LAW RE-EVALUATED 39 (1980) (coastal states arguably may prevent passage of oil tankers, since no objective test of innocent passage exists); INSTITUTE OF INT'L LAW, MEASURES CONCERNING ACCIDENTAL POLLUTION OF THE SEA, art. VI, reprinted in 53 ANNUAIRE INSTITUTE DROIT INTERNATIONAL II, 380, 382 (1969) (state may prohibit ships not conforming to CDEM standards from entering territorial sea); Wulf, supra note 150, at 163 (noting Canada's view, prior to UNCLOS III, that passage by oil tanker through territorial sea is "inherently non-innocent").

167. UNCLOS III, supra note 3, art. 19(2)(h), 21 I.L.M. at 1274.

168. In this respect, UNCLOS III is favorable to shippers. See M'GONIGLE & ZACHER, supra note 2, at 245; Fitch, supra note 29, at 136; Schneider, supra note 6, at 273. But see CHURCHILL & LOWE, supra note 31, at 72 (arguing that the detailed list of activities that render passage noninnocent in article 19(1) and (2) of UNCLOS III narrows the right of innocent passage if the list is considered nonexhaustive).

169. HAKAPÄÄ, supra note 1, at 184-85; Smith, supra note 145, at 75. Hakapää suggests that failure to comply with a coastal state's routing schemes may render passage noninnocent. HAKAPÄÄ, supra note 1, at 186. Although failure to comply meets the "act" requirement, it seems questionable whether violation of a routing scheme is itself an act of "wilful and serious pollution" if no accident or discharge occurs.

170. For discussion of coastal state enforcement jurisdiction in its EEZ, see infra notes 181-82, 187-98 and accompanying text.
state's internal waters, territorial sea, or EEZ. By the same logic, the coastal state should have broader enforcement authority in its territorial sea than its EEZ, regardless of where the pollution offense occurred, since enforcement in the territorial sea poses much less of a threat to freedom of navigation than enforcement in the EEZ.\textsuperscript{171}

3. Beyond the Territorial Sea

a. Contiguous Zone

Beyond the territorial sea, coastal state prescriptive and enforcement powers traditionally have been extremely limited. Article 24 of the Territorial Sea Convention, which is repeated almost verbatim in article 33 of UNCLOS III,\textsuperscript{172} permits a state, within its contiguous zone,\textsuperscript{173} to “exercise the control necessary to prevent infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea.”\textsuperscript{174} It is unclear, however, whether this provision is relevant to vessel-source pollution, since the phrase “sanitary regulations” may not encompass antipollution measures.\textsuperscript{175} Moreover, while the provision permits coastal state enforcement measures designed to protect its territorial sea, internal waters, and land territory,\textsuperscript{176} it does not specify whether coastal states also have prescriptive authority to prohibit acts or conditions in the contiguous zone that might adversely affect their territorial sea.\textsuperscript{177} In any event, the provision clearly does not recognize the prescriptive or enforcement authority of the coastal state to protect the

\textsuperscript{171} See Wulf, supra note 150, at 163 (noting that oil tankers, for example, generally do not traverse the territorial sea in the course of their voyages, except when passing through international straits, which under UNCLOS III are governed by a separate regime).

\textsuperscript{172} For discussion of differences between contiguous zone provisions of the 1958 Territorial Sea Convention and UNCLOS III, see supra note 81.

\textsuperscript{173} For definition of “contiguous zone,” see supra note 81.

\textsuperscript{174} Territorial Sea Convention, supra note 36, art. 24, 15 U.S.T. at 1612, 516 U.N.T.S. at 220; see also UNCLOS III, supra note 3, art. 33, 21 I.L.M. at 1276.

\textsuperscript{175} See Anderson, supra note 42, at 1002 (“the term 'sanitary' was probably not intended to include anti-pollution regulations”); Dinstein, supra note 38, at 367 (it is only “with some stretch of the imagination, [that oil pollution] may be considered as falling within the ambit of the sanitation clause”). If “sanitary measures” mean measures to protect human life, only pollution that threatens human life (for example, by contaminating the food chain) would be subject to enforcement in the contiguous zone. \textit{But cf.} Utton, supra note 43, at 142 (arguing against such a narrow interpretation). The United States has prescribed antipollution measures for its contiguous zone. See Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. § 1321(b)(1), (b)(2)(B)(3), (b)(2)(B)(5) (1988); Water Quality Improvement Act of 1970, Pub. L. No. 91-224, § 11, 84 Stat. 91, 91; U.S. Coast Guard, COMDTINST M16247.1, 1 Maritime Law Enforcement Manual, Boarding Guide 4-9, fig. 4-3 (on file with author).

\textsuperscript{176} Churchill & Lowe, supra note 31, at 116-17.

environment of the contiguous zone itself. However, because states are now permitted under UNCLOS III to prescribe and enforce vessel-source pollution standards in a much broader zone of water (the EEZ), the limited scope of the contiguous zone provision is of relatively little importance.

b. **Exclusive Economic Zone**

Prior to UNCLOS III, everything beyond the territorial sea was considered part of the high seas and was subject to the virtually exclusive jurisdiction of the flag state. One of the most important features of UNCLOS III is that it defines a new ocean zone, the exclusive economic zone, that is part of neither a coastal state's territory nor the high seas, but has its own juridical status, and may extend up to 200 nautical miles from the baselines of the territorial sea. In their EEZ, coastal states have prescriptive jurisdiction to give effect to international rules and standards regarding vessel-source pollution, as well as limited jurisdiction to enforce these standards.

While UNCLOS III's provisions on the EEZ represent a considerable expansion of coastal state jurisdiction, that jurisdiction remains highly circumscribed. With respect to prescription, coastal states may not adopt national CDEM, discharge, or navigation standards except, in certain circumstances, for ice covered areas and "special areas."

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178. CHURCHILL & LOWE, supra note 31, at 116-17.
179. For definition of "exclusive economic zone," see supra note 82.
180. UNCLOS III, supra note 3, art. 56(1)(b)(iii), 21 I.L.M. at 1280 (coastal state jurisdiction to protect and preserve the marine environment of the EEZ), art. 57, 21 I.L.M. at 1280 (maximum breadth of the EEZ).
181. UNCLOS III, supra note 3, art. 211(5), 21 I.L.M. at 1311.
182. Id. art. 220(3), (5)-(6), 21 I.L.M. at 1313 (vessel-source pollution), art. 221, 21 I.L.M. at 1313 (measures regarding maritime casualties).
184. Vessel traffic management systems in the EEZ, such as an extension of ECAREG, supra note 48, would therefore appear to be inadmissible under UNCLOS III.
185. See UNCLOS III, supra note 3, art. 234, 21 I.L.M. at 1315 (coastal states may, under certain conditions, adopt and enforce nondiscriminatory laws and regulations for the prevention, reduction, and control of marine pollution from vessels in ice covered areas within their EEZ).
186. Article 211(6) recognizes that the normal international rules and standards may be inadequate to meet the special circumstances of particular areas of the EEZ because of, for example, an area's oceanographical or ecological conditions or the particular character of its vessel traffic. UNCLOS III, supra note 3, art. 211(6), 21 I.L.M. at 1311. In such a situation, special mandatory measures may be necessary. At its seventeenth session, the IMO Assembly approved guidelines for the identification of special areas as well as rules, standards, and navigational practices for such areas. See Identification of Particularly Sensitive Areas, Including Development of Guidelines for Designating Special Areas under Annexes I, II and V: Draft Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Areas, IMO Marine Environment Protection Committee, 30th Sess., Agenda Item 19 (Nov.
With respect to enforcement of EEZ violations in either the EEZ or territorial sea:

- Coastal states may not request information from a vessel in transit unless it has "clear grounds for believing" that the vessel committed a violation in the EEZ.\(^{187}\)
- They may not physically inspect the vessel (in most instances limited to examination of the vessel's certificates and records\(^{188}\)) unless: (a) there are clear grounds for believing the vessel has caused a "substantial discharge causing or threatening significant pollution of the marine environment,"\(^{189}\) and (b) the vessel has refused to give accurate information.\(^{190}\)
- They may not arrest the vessel and institute proceedings, whether criminal or civil, unless there is "clear objective evidence" of a discharge causing "major damage or threat of major damage" to the coastal state.\(^{191}\)

Moreover, a number of "safeguard" provisions further restrict coastal state enforcement powers. The most important of these are requiring coastal states to release vessels on bond\(^{192}\) and limiting the available sanctions to monetary penalties.\(^{193}\)

In essence, coastal state enforcement of EEZ vessel-source pollution standards is the least favored option under UNCLOS III and is permitted only when a vessel has committed a discharge violation that results in

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12-16, 1990). Article 211(6) also provides that, if a coastal state wishes to designate a special area, it must notify the IMO and provide supporting scientific and technical evidence. The IMO then has twelve months in which to decide whether the requirements for special area designation are satisfied. In approved special areas, the coastal state may prescribe laws and regulations to implement the IMO's specified rules, standards and navigational practices for special areas. Coastal state laws and regulations, however, may not be applied to foreign ships until 15 months after the initial notification to the IMO. With the approval of the IMO, the coastal state may also prescribe national discharge and navigational standards for a special area, but not national CDEM standards. UNCLOS III, supra note 3, art. 211(6), 21 I.L.M. at 1311.

187. During the negotiations, efforts to replace "clear" with "reasonable" proved unsuccessful, suggesting that a coastal state must have a strong prima facie case that the vessel has committed a violation. See 4 COMMENTARY, supra note 7, at 300.

188. UNCLOS III, supra note 3, art. 226(1)(a), 21 I.L.M. at 1314 (inspection limited to examination of certificates and records unless vessel is not carrying such documents or the documents are inadequate or clearly inaccurate).

189. Id. art. 220(5), 21 I.L.M. at 1313. The discharge requirement implies that coastal states may not inspect vessels for suspected violations of CDEM standards in the EEZ. See Vindennes, supra note 183, at 576.

190. UNCLOS III, supra note 3, art. 220(5), 21 I.L.M. at 1313. UNCLOS III further requires that the circumstances of the case justify an inspection, although this condition would be satisfied if a vessel has caused significant pollution and has manifestly refused to give accurate information. Id.

191. Id. art. 220(6), 21 I.L.M. at 1313. There is no clear dividing line between "substantial" and "major" damage. See Boyle, supra note 6, at 364. These restrictions on coastal state enforcement jurisdiction apparently do not apply to ice covered areas. UNCLOS III, supra note 3, art. 234, 21 I.L.M. at 1315.

192. Id. art. 226(1)(b), 21 I.L.M. at 1314.

193. Id. art. 230(1), 21 I.L.M. at 1315.
or threatens substantial damage to the coastal state. Otherwise, the only recourse for a coastal state is to relay information about a possible violation to the vessel's flag state or to its next port of call, so that one of those states can undertake an investigation and proceedings.

c. High Seas

On the high seas, UNCLOS III does not expand the very limited jurisdiction of coastal states. Under its terms, the high seas begin further out, beyond a state's EEZ rather than its territorial sea, but the basic regime of the high seas is the same—exclusive flag state jurisdiction.194 If a discharge violation on the high seas pollutes a coastal state's waters, this injury is sufficient to confer civil jurisdiction on the coastal state for damage claims, at least for oil pollution damage.195 Coastal states have no prescriptive competence, however, even over activities of vessels that might harm their waters.196 Furthermore, they may take enforcement actions only if in hot pursuit of a vessel that has committed a violation in

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194. See supra notes 100-26 and accompanying text.

195. See Civil Liability Convention, supra note 35, art. I(6), 9 I.L.M. at 46, reprinted in INTERNATIONAL CONFERENCE ON LIABILITY AND COMPENSATION FOR DAMAGE IN CONNEXION WITH THE CARRIAGE OF CERTAIN SUBSTANCES BY SEA, 1984, at 58, 13 Envtl. Pol'y & L. at 66 (oil pollution damage includes all loss or damage caused by the discharge of oil from the ship, regardless of where the pollution incident occurred), art. IX, 9 I.L.M. at 56, reprinted in INTERNATIONAL CONFERENCE ON LIABILITY AND COMPENSATION FOR DAMAGE IN CONNEXION WITH THE CARRIAGE OF CERTAIN SUBSTANCES BY SEA, 1984, at 66, 13 Envtl. Pol'y & L. at 67 (injured states have exclusive jurisdiction over actions for compensation); Ludwik Teclaff, International Law and the Protection of the Oceans from Pollution, in INTERNATIONAL ENVIRONMENTAL LAW, supra note 43, at 118; Baker et al., supra note 69, at 235-36 (discussing view that, under customary international law, coastal state may exercise jurisdiction to determine liability for high seas pollution affecting coastal state); Lowe, supra note 90, at 625, 630; cf. Paris Convention on Third Party Liability in the Field of Nuclear Energy, July 29, 1960, art. 13(b), Cmdn. 1211, reprinted in 55 AM. J. Int'l L. 1082, 1089 (1961) (coastal state may adjudicate only if accident occurred in its territorial sea or internal waters; for accidents occurring beyond the territorial sea, state of cargo owner has jurisdiction). Negotiations are currently underway in the IMO to develop a convention regarding liability for pollution damage caused by hazardous and noxious substances other than oil. See IMO Legal Committee, OCEAN POL'Y NEWS (Council on Ocean Law, Washington, D.C.), Oct.-Nov. 1990, at 3-4.

196. High Seas Convention, supra note 36, art. 2, 13 U.S.T. at 2314, 450 U.N.T.S. at 82 (no state may subject any part of high seas to its sovereignty), art. 6(1), 13 U.S.T. at 2315, 450 U.N.T.S. at 86 (exclusive flag state jurisdiction); UNCLOS III, supra note 3, arts. 89, 92, 21 I.L.M. at 1287; see also Utton, supra note 43, at 144-46, 149-52 (arguing that the 1958 Law of the Sea Conventions were restrictive of prior customary practice allowing greater exercise of coastal state jurisdiction); infra notes 247-48 and accompanying text. Although OILPOL established a prohibited zone in coastal waters within 50 miles of shore, this prohibited zone was prescribed and enforced by flag states. OILPOL, supra note 23, art. VI(1). OILPOL preserved the right of coastal states to take measures within their jurisdiction (i.e., their territorial sea) to implement the convention, but did not extend that jurisdiction, id. art. XI, 12 U.S.T. at 2998, 327 U.N.T.S. at 12; see Dean Cycon, Calming Troubled Waters: The Developing International Regime to Control Operational Pollution, 13 J. MAR. L. & COM. 35, 38 n.12 (1980); Lowe, supra note 90, at 629. MARPOL also did not extend coastal state jurisdiction. See supra note 148.
their internal waters, territorial sea, or EEZ, their internal waters, territorial sea, or EEZ, or if the pollution from the vessel seriously threatens their security.

C. Port State Jurisdiction

The expansion of port state jurisdiction by UNCLOS III is often regarded as one of the Convention’s most significant features. Properly labelled, port state jurisdiction prior to UNCLOS III was quite limited. Jurisdiction was permitted with respect to vessels in port for offenses committed in or affecting the port state’s coastal waters. However, this is in fact a type of coastal rather than port state jurisdiction.

The only true port state jurisdiction prior to UNCLOS III was to adjudicate cases involving vessels in port. In such instances, the port state has jurisdiction based on the vessel’s presence, and could exercise that adjudicative jurisdiction even for alleged violations on the high seas or in another state’s coastal waters. Port states did not need to have prescriptive jurisdiction, since they could use choice of law rules to apply foreign law. Under the transitory tort theory, a tort follows the tortfeasor and may be sued upon wherever the tortfeasor is found.

With respect to enforcement jurisdiction, however, the rule prior to UNCLOS III was that port states could not exercise criminal jurisdiction for offenses committed on the high seas. The port state could inspect


198. See UNCLOS III, supra note 3, art. 221, 21 I.L.M. at 1313; Shearer, supra note 68, at 337. Following the Torrey Canyon oil spill in 1967, the British bombed the Torrey Canyon on the high seas in an effort to minimize pollution. At the time, it was unclear whether coastal states, in the event of a maritime casualty, could take measures on the high seas against the damaged vessel to protect themselves. See E.D. Brown, The Lessons of the Torrey Canyon, 21 CURRENT LEGAL PROBS. 113, 123-24 (1968). Soon thereafter the Intervention Convention, supra note 35, was adopted. It recognizes the right of coastal states to take measures on the high seas to prevent, mitigate, or eliminate grave and imminent danger from oil pollution to their coastline or related interests. Id. art. I, 26 U.S.T. at 767, 9 I.L.M. at 25. A protocol has extended the Intervention Convention to other types of pollution. Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances Other than Oil, Nov. 2, 1973, 13 I.L.M. 605.

199. See, e.g., Churchill & Lowe, supra note 31, at 259; Schneider, supra note 16, at 570.

200. See 4 COMMENTARY, supra note 7, at 260-61.

201. See Arrest Convention, supra note 163 art. 2, 53 AM. J. INT’L L. at 540; cf. Burnham v. Superior Court, 110 S. Ct. 2105 (1990) (upholding jurisdiction based on transient presence). Following the Torrey Canyon oil spill, supra note 198, the United Kingdom arrested a vessel in Singapore owned by the same company as the Torrey Canyon to satisfy its damage claims. See M’Gonigle & Zacher, supra note 2, at 150.

202. See supra note 61 and accompanying text.

203. See Kasoulides, supra note 89, at 422; Shearer, supra note 68, at 340 (port state juris-
the ship's documents to ascertain whether there had been a violation. But if it suspected a violation had occurred, its only recourse was to report the violation to the flag state for investigation and possible prosecution; it could not institute proceedings itself.

The basis of this limitation on port state criminal jurisdiction is not altogether clear. In part it may have stemmed from the port state's lack of prescriptive jurisdiction over areas beyond its territorial sea; alternatively, it may have been a vestige of the view that vessels are subject to the exclusive criminal jurisdiction of the flag state, except for offenses that damage the peace or security of the coastal state. In any event, UNCLOS III gives port states, for the first time, authority over pollution incidents occurring on the high seas or in another state's coastal waters. Article 218 provides that a port state may conduct inspections and institute proceedings against vessels for discharges on the high seas in violation of "applicable international rules and standards," it may conduct inspections for discharge violations in another state's coastal waters, and it may bring prosecutions for such discharges at the request of the flag state, the coastal state, or any injured state.

The international discharge standards that port states may enforce pursuant to article 218 are presumably those reflected in MARPOL. But article 218 restricts port state enforcement jurisdiction by allowing enforcement, not of international discharge standards generally, but only of "applicable" standards. This raises the question of which international rules and standards are "applicable" and therefore enforceable by the port state. Stated differently, if a port state wishes to prosecute a

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204. OILPOL, supra note 23, art. IX(5), 17 U.S.T. at 1534, 600 U.N.T.S. at 342; Brown, supra note 150, at 201 (port states may inspect oil record book under OILPOL); Mensah, supra note 26, at 248. Port states may inspect vessels for evidence of discharge violations under MARPOL, supra note 24, art. 6(2), 21 I.L.M. at 1324, but only if the flag state is a party to MARPOL and the discharge takes place in the port state's coastal waters, since otherwise the discharge standard does not apply to the vessel in the first place. Id. art. 3(1), 12 I.L.M. at 1321; see also Wang, supra note 88, at 316 (port states may not inspect vessels for discharge violations under MARPOL, except on request). In contrast, port states may inspect vessels of any state for violations of CDEM standards, since these violations are ongoing and the port state can itself prescribe these standards for vessels using its ports. See Marpol, supra note 24, art. 5(4), 12 I.L.M. at 1323 (parties shall apply the requirements of MARPOL to ships of nonparties to ensure that "no more favorable treatment is given to such ships").

205. See Lowe, supra note 90, at 626-27.

206. During the negotiation of MARPOL, proposals to allow port state enforcement of discharge violations on the high seas were defeated on the grounds that this would infringe on the flag state's high seas jurisdiction. See HAKAPÅ, supra note 1, at 173; M'GONIGLE & ZACHER, supra note 2, at 212, 225, 231-32; 2 TIMAGENIS, supra note 38, at 514-15 (substantial support for port state enforcement despite defeat of proposals); Brown, supra note 150, at 210-11.

207. UNCLOS III, supra note 3, art. 218(1), 21 I.L.M. at 1312.

208. Id. art. 218(2), 21 I.L.M. at 1312.

209. Supra note 24.
vessel for a discharge on the high seas or in another state's coastal waters, whose law would it be enforcing—its own law, the international discharge standard, the flag state's law, or the coastal state's law?

Generally, when an international standard is adopted, it is given a particular range of application. MARPOL, for example, states that its provisions apply to ships entitled to fly a party's flag or that operate under the authority of a party. The Paris Convention for the Prevention of Marine Pollution from Land-Based Sources, in contrast, defines its scope of application in geographic terms. One interpretation of "applicable international rules and standards," as used in UNCLOS III, is that it means those international rules and standards that, by their own terms, apply to the person, vessel, or activity in question. Under this interpretation, port state enforcement under article 218 is limited to discharge violations by vessels that either are entitled to fly the flag or operate under the authority of a MARPOL party.

An alternative view is that, even if the vessel's flag state is not a party to MARPOL, MARPOL's standards could nonetheless be applicable to the vessel if prescribed by national law—for example, by the flag state or by the coastal state through whose waters the vessel was passing at the time of the discharge. UNCLOS III contemplates such a process by permitting flag and coastal states to prescribe national laws and regulations that give effect to generally accepted international rules and standards. In this indirect way, international discharge standards could become applicable to vessels to which they otherwise would not apply, and could become enforceable by port states.

210. MARPOL, supra note 24, art. 3(1), 12 I.L.M. at 1321; cf SOLAS, supra note 24, art. II, 32 U.S.T. at 5580, 17 I.L.M. at 580 (limiting application to ships entitled to fly the flag of a party).


212. The term "applicable international rules and standards" is used in virtually all of the enforcement articles of part XII of the Convention, not just article 218. See UNCLOS III, supra note 3, art. 213, 21 I.L.M. at 1311 (pollution from land based sources), art. 214, 21 I.L.M. at 1311 (pollution from seabed activities), art. 216(1), 21 I.L.M. at 1312 (pollution by dumping), art. 217(1), 21 I.L.M. at 1312 (enforcement by flag states), art. 220(1)-(3), (5)-(6), 21 I.L.M. at 1313 (enforcement by coastal states), art. 222, 21 I.L.M. at 1313 (pollution from or through the atmosphere). See 4 COMMENTARY, supra note 7, at 215 ("[n]o attempt is made to explain what is meant by 'applicable' ").

213. Cf Van Reenen, supra note 10, at 12-13, 24 ("applicable" rules and standards are rules and standards applicable to the state or states concerned).

214. Cf HAKAPĂ, supra note 1, at 176 (prosecutions limited to violations of: (1) agreements to which both the flag state and port state are parties, or (2) customary international law).

215. UNCLOS III, supra note 3, art. 211(2), 21 I.L.M. at 1310 (flag states), art. 211(5), 21 I.L.M. at 1311 (coastal states).

216. For example, the standards contained in MARPOL apply, by their own terms, only to vessels entitled to fly the flag of a contracting party or, although not entitled to fly the flag of
In the context of article 218, however, this interpretation appears incorrect. The term "applicable international rules and standards" does not appear to encompass international rules and standards that apply to a vessel indirectly, as a result of national prescription by the flag or coastal state, where the flag state is not a party to the international convention establishing the standard. The enforcement articles of UNCLOS III consistently distinguish between enforcement of "applicable international rules and standards" on the one hand, and of national laws and regulations on the other. This distinction is made even with respect to discharge violations in the EEZ, where coastal state laws and regulations may not go beyond international rules and standards. If an international standard became "applicable" through national prescription, then these references to national laws and regulations would be redundant.

Some commentators suggest an even more expansive interpretation of article 218. In their view, article 218 creates a type of universal jurisdiction, by virtue of which port states may enforce international discharge standards against any vessel, regardless of whether the flag state (or, for discharges in another state's coastal waters, the coastal state) has accepted or prescribed those standards.

This interpretation, however, presupposes that UNCLOS III gives port states prescriptive authority to extend the application of international discharge standards to vessels on the high seas. This view is open to serious question, since article 218 is in section 6 of part XII, which deals with enforcement jurisdiction, rather than section 5, which deals with prescriptive jurisdiction. The Convention, in its articles on prescriptive jurisdiction, makes no mention of universal port state jurisdiction and instead contemplates port state prescriptive jurisdiction relating only to conditions of entry into port.

The better interpretation, then, is that port state enforcement authority is limited to discharges in violation of international standards that, by their own terms, apply to the vessel in question. For example,
in the case of MARPOL violations, the port state has authority if the vessel is flying the flag or operating under the authority of a party. Nevertheless, this provision still represents an important new enforcement tool, since the principal convention establishing discharge standards, namely MARPOL, has been ratified by states that account for much of the world's shipping, and hence its discharge standards are already widely applicable.

Thus far, port states have only partially exercised their enforcement jurisdiction. Pursuant to their preexisting authority under MARPOL and customary international law, a number of European states have developed a cooperative port state inspection program to ensure compliance with international CDEM standards and to investigate discharge violations. But the full potential of port state inspections has not yet been realized. It might be possible, for example, to universalize the European port state inspection program, possibly under the auspices of the IMO. Nor does it appear that port states have exercised their newfound jurisdiction under UNCLOS III over discharge violations on the high seas. These remain possible avenues for development.

and persons, see supra note 63), or whether port states have an implied prescriptive competence to assimilate international discharge standards into their national law. See CHURCHILL & LOWE, supra note 31, at 257.

222. See supra note 210.

223. As of September 14, 1990, MARPOL annexes I and II had been ratified by states representing 85% of the world's total shipping tonnage, annex III by 48%, annex IV by 40%, and annex V by 61%. Letter from Thomas Mensah, Assistant Secretary-General, IMO, to Daniel Bodansky (Sept. 18, 1990) (on file with author).

224. See supra notes 204-05 and accompanying text.

225. Memorandum of Understanding on Port State Control, Jan. 26, 1982, 21 I.L.M. 1 (1982) [hereinafter Paris MOU] (entered into operation July 1, 1982). See generally Kasoulides, supra note 89. The Paris MOU is a nonbinding agreement that provides for harmonized inspection procedures and practices and the sharing of information. The fourteen participating states inspect vessels entering their ports for compliance with international marine pollution agreements such as MARPOL and SOLAS and for evidence of discharge violations at sea. In 1989, there were 12,459 inspections, involving 9164 vessels. PORT STATE CONTROL COMM., supra note 93, at 33. Each country is supposed to inspect 25% of the ships entering its ports each year. If this target were met, over 85% of vessels entering the ports of participating states would be inspected at least once in the course of a year, given the patterns of vessel traffic in Europe. In 1989, the percentage of ships inspected by each state was 20.6%, slightly short of the 25% goal. Id. at 21. Inspection is ordinarily limited to the vessel's certificates and documents. However, more detailed inspections are undertaken if the vessel does not have the certificates or documents required under the applicable international convention, or if there are clear grounds for believing that the ship does not substantially meet the requirements of the relevant convention, for example, if there are reports of a violation from another state party or a crew member. Generally, the purpose of the inspections is to gather information, not to take enforcement measures. But port states may detain a vessel with a serious deficiency until the deficiency is repaired. Cf. UNCLOS III, supra note 3, art. 219, 21 I.L.M. at 1313 (port state may detain unseaworthy vessels). In 1989, 344 vessels were detained for unseaworthiness. Thus far, there have been no reported claims by flag states for compensation for these detentions. Kasoulides, supra note 89, at 452.
III
CRITIQUE OF UNCLOS III

Although barely eight years old, the vessel-source pollution provisions of UNCLOS III are already being called into question. At several recent negotiations, coastal state efforts to authorize more stringent environmental measures were opposed by maritime states seeking to protect traditional freedoms of navigation. Although compromise language was accepted in each case, this language essentially preserved intact the positions of both coastal and maritime states, without resolving the real differences between them.

To some degree, these controversies can be viewed as disagreements that have arisen within the context of UNCLOS III as to how it should be interpreted and applied. To some degree, they may reflect dissatisfaction with the balance struck in the Convention itself. In either case, however, they demonstrate that the Convention has not laid to rest the problem of allocating jurisdictional competence among states to prescribe and enforce environmental norms. If UNCLOS III is to succeed in providing a stable ocean regime, further work is needed to spell out in concrete terms what it permits and to develop additional international rules and standards, both substantive and jurisdictional, that address problems not resolved by the Convention.

A. Unresolved Issues Relating to Vessel-Source Pollution

UNCLOS III operates as a “framework” convention. It sets forth the basic scope of and constraints on flag, coastal and port state jurisdiction, but leaves the concrete balancing of maritime and nonmaritime interests to other global or regional fora, the IMO in particular. A few of its provisions contain bright line tests. For example, a coastal state may not adopt national CDEM standards, nor may it adopt for enforcement purposes any national pollution standards for its exclusive economic zone. However, many other provisions in the Convention refer to competing considerations that must be weighed in specific cases. As a result, much work remains to be done in analyzing which specific types of prescriptive and enforcement measures are permissible under the Convention.

The need for additional work is most obvious with respect to coastal state environmental measures in the territorial sea. Article 21 of the Convention permits coastal states to adopt laws and regulations for the

226. See, e.g., supra notes 4-5.
227. UNCLOS III, supra note 3, art. 21(2), 21 I.L.M. at 1274.
228. Id. art. 21(5), 21 I.L.M. at 1311.
229. See Shearer, supra note 68, at 322 (unclear what enforcement measures permissible).
prevention, reduction, and control of pollution of their territorial sea.\textsuperscript{230} But, under article 211(4), these coastal state prescriptions may not "hamper innocent passage."\textsuperscript{231} The problem, of course, is to determine which coastal state laws and regulations would have that effect.\textsuperscript{232}

For example, can a coastal state require vessels carrying hazardous wastes to give notice of entry into the coastal state's territorial sea? Article 22(2) of the Convention explicitly permits coastal states to require that vessels carrying hazardous cargoes use sea lanes designated by the coastal state.\textsuperscript{233} But the Convention does not specify what additional coastal state regulations are permissible. Moreover, article 23, by requiring vessels carrying hazardous substances to comply only with "special precautionary measures established for such ships by international agreements,"\textsuperscript{234} suggests that precautionary measures established by national law may not be permissible.

During the negotiations on the Basel Convention,\textsuperscript{235} the United States took the position that a coastal state may not require vessels carrying hazardous wastes to report their entry into the territorial sea, on the grounds that this would impermissibly impair the right of innocent passage.\textsuperscript{236} Other states argued that the burden on navigation would be slight compared to the magnitude of the coastal state's interest in protecting its shores from pollution, and that such a coastal state notice requirement would be a legitimate exercise of prescriptive jurisdiction under UNCLOS III. The issue is arguable and illustrates different views of how the territorial sea provisions of UNCLOS III should be reconciled.

Coastal state jurisdiction in the EEZ appears to raise fewer ambiguities. Although the Convention's provisions on the EEZ, like those on the territorial sea, set up a basic tension between a coastal state's right to protect its marine environment and a maritime state's right to freedom of navigation,\textsuperscript{237} the balance weighs more heavily in favor of maritime interests in the EEZ than in the territorial sea. Thus, article 211(5) contains a much more definite rule designed to protect navigation rights in

\textsuperscript{230} UNCLOS III, supra note 3, arts. 21(1)(f), 21 I.L.M. at 1274.
\textsuperscript{231} Id. art. 211(4), 21 I.L.M. at 1311.
\textsuperscript{232} See Smith, supra note 145, at 91 (noting that all prescription to some extent hampers freedom of navigation).
\textsuperscript{233} UNCLOS III, supra note 3, art. 22(2), 21 I.L.M. at 1274.
\textsuperscript{234} Id. art. 23, 21 I.L.M. at 1274 (emphasis added).
\textsuperscript{235} See supra note 4.
\textsuperscript{236} Captain J. Ashley Roach, Traditional Uses of the High Seas: From Montego Bay to Basel to Kingston, Remarks at a Meeting of the Council on Ocean Law on Resources or Freedoms on the High Seas: Policing the Ocean Commons 8-10 (Feb. 8, 1990) (transcript on file with author).
\textsuperscript{237} Compare UNCLOS III, supra note 3, art. 56(1)(b)(iii), 21 I.L.M. at 1280 (in the EEZ, coastal states have jurisdiction to protect and preserve the marine environment) with id. art. 58(1), 21 I.L.M. at 1280 (in the EEZ, all states enjoy freedom of navigation).
the EEZ; it permits a coastal state to adopt only those laws and regulations that “conform and give effect” to generally accepted international rules and standards for the prevention, reduction, and control of pollution from vessels. Based on the principle that the more specific part of an agreement governs over the more general,\textsuperscript{238} this specific provision relating to pollution control measures in the EEZ would appear to inform and limit the more general provisions on the EEZ and thereby preclude coastal states from adopting national rules and standards.

The situation, however, is not that simple. Coastal states have sovereign rights to conserve and manage the natural resources of the EEZ.\textsuperscript{239} Moreover, the EEZ overlies the continental shelf, to whose natural resources the coastal state also has sovereign rights.\textsuperscript{240} The question is whether these resource-related rights include a right to impose and enforce environmental regulations. The United States apparently has taken this position, claiming jurisdiction to protect coral reefs by regulating ship anchoring in marine sanctuaries located on its continental shelf.\textsuperscript{241} Since ship anchoring is an incident of navigation and the suggested U.S. regulations do not conform and give effect to any generally accepted international rules and standards, the regulations are inconsistent with article 211.\textsuperscript{242} The United States has argued, however, that these regulations are resource protection rather than pollution control measures, and hence do not fall under the restrictions imposed by article 211;\textsuperscript{243} instead, they must be evaluated in terms of the more general equitable balancing of interests called for by the Convention’s provisions on the EEZ\textsuperscript{244} and the continental shelf.\textsuperscript{245} If this argument is correct, it

\begin{footnotesize}
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\item This rule is expressed in the Latin maxim, \textit{lex specialis derogat legi generali.}
\item UNCLOS III, \textit{supra} note 3, art. 56(1)(a), 21 I.L.M. at 1280.
\item \textit{Id.} art. 77, 21 I.L.M. at 1285.
\item Unless perhaps they were enforced as a condition of port entry, \textit{see supra} notes 128-32 and accompanying text.
\item Hajost, \textit{supra} note 241, at 290. \textit{But see} William T. Burke, \textit{Changes Made in the Rules of Navigation and Maritime Trade by the 1982 Convention on the Law of the Sea, in The Developing Order of the Oceans, \textit{supra} note 6, at 662, 670-71 (proposed prohibition on anchoring properly characterized as an environmental protection measure governed by parts XII of UNCLOS III rather than a resource exploitation measure governed by parts V and VI); \textit{cf.} United States v. Alexander, 602 F.2d 1228, 1231 (5th Cir. 1979) (Outer Continental Shelf Lands Act authorizes Interior Department to issue rules and regulations only for the administration of outer continental shelf mineral leases, not for the protection of natural resources per se).}
\item UNCLOS III, \textit{supra} note 3, art. 59, 21 I.L.M. at 1280 (in cases where a conflict arises between the interests of a coastal state and another state, “the conflict should be resolved on the basis of equity and in light of all relevant circumstances, taking into account the respective}
\end{enumerate}
\end{footnotesize}
 VesSEL-SOURCE POLLUTION opens the door to other assertions of "protective jurisdiction" by coastal states in their EEZ, and the issue again becomes one of assessing the impact of these regulations on the navigational interests of maritime states.

My purpose here is not to resolve these questions, but rather to suggest that much of the hard work of reconciling the interests of coastal and maritime states remains. UNCLOS III envisaged that this work would be accomplished, in large part through the various dispute settlement mechanisms set forth in part XV of the Convention, as coastal states put forward claims and maritime states disputed them. Until the Convention enters into force, though, these dispute settlement procedures remain a mere expectation. In the meantime, coastal states require guidance as to what actions are consistent with the legal regime reflected in the Convention.

**B. Limitations on Coastal and Port State Jurisdiction**

One of the most striking elements of UNCLOS III's provisions on vessel-source pollution are the limitations on coastal and port state jurisdiction. In other spheres, states have broad powers to regulate conduct outside their territory that adversely affects them, at least if the effects are direct. The United States, for example, tries to project its securities and antitrust laws into other countries on this basis. Indeed, if an act is considered to have its locus not merely where it was committed but also where its effects are felt, assertions of effects jurisdiction could be viewed as territorial rather than extraterritorial in nature.

The international law of the sea has nevertheless been reluctant to allow coastal states to regulate activities in their coastal waters (broadly defined) which may affect their resources or territory. Thus, under
UNCLOS III, despite the recognition of wider coastal state competence, a coastal state is still forbidden to exercise any prescriptive jurisdiction in waters beyond 200 miles from shore, even though it is possible that an incident in those waters might pollute the coastal state itself or, more likely, its EEZ and continental shelf resources.

This gap between the jurisdictional competence of states to protect the marine environment and their jurisdictional competence in other spheres appears, if anything, to be widening. In recent years, state jurisdiction to prescribe and enforce international standards has undergone a remarkable expansion, designed to promote better compliance with international law. For example, in the areas of human rights and antiterrorism, recently adopted conventions permit—indeed require—states to exercise jurisdiction universally. This approach was deemed necessary because the states that had jurisdiction under traditional principles of international law (i.e., the state where the offense occurred or whose national was responsible) might either be involved themselves and thus unwilling to punish the perpetrators or be unable to do so effectively due to the weakness of their judicial system.

In contrast, the expansion of jurisdiction to protect the marine environment has been more modest. As discussed above, UNCLOS III gives coastal states somewhat greater prescriptive and enforcement powers than before. Port states may play a greater role in investigating and, (them). A rare recognition by UNCLOS III of coastal state protective jurisdiction is article 218(2), which grants a port state broader jurisdictional competence over discharge violations in another state's coastal waters if the discharge causes or is likely to cause pollution to the port state's waters. UNCLOS III, supra note 3, art. 218(2), 21 I.L.M. at 1312.

249. The coastal state may, however, take enforcement measures under the Intervention Convention, supra note 35, to protect itself against grave and imminent threats of pollution. See supra note 198 and accompanying text.

250. In the Torrey Canyon oil spill, supra note 198, for example, some oil travelled over 200 miles before washing up on the coast of Brittany. See Norman A. Wulf, Contiguous Zones for Pollution Control, 3 J. MAR. L. & COM. 537, 545 (citing EDWARD COWAN, OIL AND WATER: THE TORREY CANYON DISASTER 162 (1968)). In the fisheries context, in contrast, coastal states may exercise prescriptive jurisdiction beyond their EEZ to regulate fisheries for anadromous stocks. See UNCLOS III, supra note 3, art. 66, 21 I.L.M. at 1282.

251. UNCLOS III itself has expanded the jurisdiction of coastal states to include protection against "pirate broadcasters" on the high seas, but not against marine pollution originating on the high seas. UNCLOS III, supra note 3, art. 109, 21 I.L.M. at 1289; see also infra notes 291-92 and accompanying text.

252. See, e.g., Torture Convention, supra note 54, art. 5, S.TREATY Doc. No. 20, at 20.


254. See supra notes 179-93 and accompanying text.
to a lesser extent, prosecuting marine pollution violations. Nevertheless, the role of the flag state remains primary.

Consider, for example, the jurisdiction of port states to prosecute violations of vessel-source pollution standards. Although port state enforcement, unlike enforcement at sea, does not impose a direct burden on navigation, UNCLOS III nevertheless gives priority to the flag state, by allowing it to preempt port state criminal proceedings in most circumstances. The only exceptions are for violations that cause major damage to the port state or when the flag state has repeatedly disregarded its obligation to enforce effectively the applicable international rules and standards. Moreover, port state enforcement is optional rather than mandatory.

Contrast this with the regime established by the recently adopted Torture Convention. Functionally, a port state is like a state that finds a torturer within its jurisdiction. But, unlike the port state, a state that finds a torturer within its territory must assert jurisdiction. Moreover, its jurisdiction is not subordinate to the jurisdiction of any other state. While it is permitted to extradite the torturer to another state, it may also refuse extradition and bring the prosecution itself.

The reason for the severe limits on jurisdiction outside the flag state is, of course, the interest of maritime states in free navigation. What is interesting, though, is that this interest in free navigation has been accorded greater weight by the United States than the interest in respecting the territorial sovereignty of other states. The United States asserts that it can regulate conduct occurring in another sovereign country if that conduct affects the United States. But it claims much less authority to regulate activities on the high seas, outside the territory of any state, under similar circumstances.

Exactly when this ordering emerged is unclear, but it was not always so. Piracy, for example, was the first crime for which universal jurisdiction was recognized. Any state could arrest and prosecute pi-

255. See supra notes 199-225 and accompanying text.
256. UNCLOS III, supra note 3, art. 228(1), 21 I.L.M. at 1314. Bernhardt views this as the worst aspect of the vessel-source pollution provisions of UNCLOS III. Bernhardt, supra note 6, at 299.
257. UNCLOS III, supra note 3, art. 228(1), 21 I.L.M. at 1314.
258. The one mandatory provision is that port states must “as far as practicable” take administrative measures to prevent the sailing of unseaworthy vessels that threaten damage to the marine environment. Id. art. 219, 21 I.L.M. at 1313.
259. Torture Convention, supra note 54, art. 5(2), S. TREATY DOC. No. 20, at 20.
260. Id. arts. 5, 7, S. TREATY DOC. No. 20 at 20, 21.
261. For criticism of this view, see BOWETT, supra note 100, at 66 (“The principle of the freedom of the high seas cannot be of any greater sanctity than that of . . . territorial integrity . . . .”).
262. See supra note 246 and accompanying text.
263. RUBIN, supra note 63, at 92-94; Randall, supra note 53, at 791; cf. Harvard Research
rates. But one of the reasons why this rule developed was that piracy is defined as taking place on the high seas, outside the territory of any state.\textsuperscript{264} Therefore, the prohibition of piracy and the apprehension and prosecution of pirates was not viewed as infringing on the territorial sovereignty of any other state. If an act that constituted piracy when committed on the high seas (e.g., robbery) was committed in another state, universal jurisdiction did not exist. Today, in contrast, the United States seems to take the opposite approach. It displays a greater willingness to exercise prescriptive and enforcement jurisdiction within another state's borders than to interfere with the freedom of navigation on the high seas.\textsuperscript{265}

Not only is the balance of interests in UNCLOS III weighted heavily in favor of maritime states, it is cast in very general terms. With a few exceptions,\textsuperscript{266} the Convention, in elaborating the jurisdictional competence of coastal states, does not call for an assessment of either the strength of the coastal state interest in particular types of regulations or the impact of those regulations on freedom of navigation. Instead, the Convention delineates coastal state jurisdiction in terms of broad geographic zones of the oceans. Thus, in its provisions on the territorial sea, the Convention makes no effort to distinguish between regulations that deny innocent passage altogether (for example, by prohibiting the passage of ships carrying hazardous wastes) and those that merely "impair" or "hamper" innocent passage by prescribing stricter CDEM standards. Both are prohibited equally.\textsuperscript{267}

\textsuperscript{264} High Seas Convention, supra note 36, art. 15, 13 U.S.T. at 2317, 450 U.N.T.S. at 90; UNCLOS III, supra note 3, art. 101(a)(i)-(ii), 21 I.L.M. at 1288.


\textsuperscript{266} E.g., UNCLOS III, supra note 3, art. 21(2), 21 I.L.M. at 1274 (prohibiting national CDEM standards in the territorial sea), art. 211(6), 21 I.L.M. at 1311 (special areas).

\textsuperscript{267} Id. art. 24, 21 I.L.M. at 1275.
As the previous section argued, this generality means that the Convention does not provide definitive answers to a number of issues. It also means that where the Convention does provide clear answers, setting forth a bright-line test, those answers are not likely to be carefully tailored to the concrete interests involved. For example, the Convention forbids the imposition of national CDEM standards in the EEZ\textsuperscript{268} without regard to either the strength of a coastal state's interest or the extent that the regulation would burden navigation. Thus, even where the coastal state's interest is very great and the maritime state's interest is low, the Convention precludes the coastal state from going beyond generally recognized international rules and standards.\textsuperscript{269}

IV
BEYOND UNCLOS III?

International law, like law generally, must respond to the "felt necessities of the times."\textsuperscript{270} To the extent it does not, pressure for change builds and the law cannot fulfill one of its basic purposes: to establish a predictable framework for action.

Although UNCLOS III recognizes greater coastal state competence to prescribe and enforce environmental measures, as a whole it leans heavily in favor of maritime interests.\textsuperscript{271} Given the growing concern of coastal states for the marine environment, this will likely be one of the pressure points on the stability of the Convention. Indeed, the negotiations in the past several years on the Basel Convention on the Transboundary Movements of Hazardous Wastes\textsuperscript{272} and the Kingston Protocol Concerning Specially Protected Areas and Wildlife in the Caribbean\textsuperscript{273} illustrate that this pressure has already begun. Unless maritime states display greater willingness to agree to international measures that

\textsuperscript{268} Id. art. 211(5), (6)(c), 21 I.L.M. at 1311.

\textsuperscript{269} Even with respect to special areas in the EEZ, see supra note 186: (1) the coastal state may not adopt national CDEM standards, UNCLOS III, supra note 3, art. 211(6)(c), 21 I.L.M. at 1311; (2) IMO-approved discharge and navigational standards may not take effect for at least fifteen months after notification of the special area designation to the IMO, id. art. 211(6)(a), 21 I.L.M. at 1311; and (3) the coastal state has no additional enforcement powers under article 220, id. art. 220(8), 21 I.L.M. at 1313.


\textsuperscript{271} Jesper Grolin, The Stability of the Environmental Regime of the 1982 Law of the Sea Convention, in THE 1982 CONVENTION ON THE LAW OF THE SEA, supra note 16, at 608; Smith, supra note 145, at 101 (provisions of UNCLOS III on innocent passage show "extraordinary deference to navigational concerns"); Vindennes, supra note 183, at 575 ("In reading the text of the Convention, it is impossible . . . to escape the conclusion that in most essential issues the interests which prevailed in the negotiations were those of the maritime powers"); id. at 581 ("[T]he consensus which eventually emerged does not seem to lie in the centre but is leaning rather heavily in the direction of the positions taken by the maritime powers.").

\textsuperscript{272} See supra note 4.

\textsuperscript{273} See supra note 5.
address the concerns of coastal states, the likelihood will grow that coastal states will develop their own standards or assert jurisdiction beyond what is allowed by UNCLOS III.274

To preserve the stability of the Convention, two approaches are possible. The international community could by agreement: (1) develop new international rules and standards regarding vessel-source pollution that address the emerging environmental concerns of coastal states, or (2) supplement the jurisdictional rules of UNCLOS III with rules that give greater latitude to coastal or port states.

A. New Substantive Rules and Standards

While the balance of interests set forth in UNCLOS III is skewed in favor of maritime interests, the Convention does not preclude the exercise of greater coastal state powers pursuant to newly developed international rules and standards. The framework established by the Convention indeed contemplates such a process by specifically calling for a reexamination of international rules and standards "from time to time as necessary."275 In this manner, the international community could address new concerns and problems without altering the jurisdictional balance set forth in UNCLOS III.

Consider, for example, the dispute during the Basel Convention negotiations about whether coastal states may impose a notice requirement for vessels carrying hazardous wastes through their territorial sea or EEZ.276 One alternative would have been simply to include such a notice requirement in the Basel Convention itself. This new international rule could then have been implemented by coastal states in their territorial sea and EEZ, in complete consistency with UNCLOS III, as an exercise of coastal state jurisdiction under article 211.

Maritime states, however, have failed to show much interest in developing new international rules and standards that take account of legitimate coastal state concerns. For example, at the recent negotiations on

274. An example of unilateral coastal state action was the adoption by Canada in 1970 of the Arctic Waters Pollution Prevention Act, R.S.C., ch. 2 (1st Supp. 1970), reprinted in 9 I.L.M. 543, which established a pollution control zone 100 miles wide within which Canada claimed the right to prescribe and enforce national CDEM and discharge standards. This assertion of jurisdiction was contested by the United States. See 9 I.L.M. 605 (correspondence between U.S. and Canada); 1 NEW DIRECTIONS IN THE LAW OF THE SEA 199, 211 (S. Houston Lay et al. eds., 1973). See generally Louis Henkin, Arctic Anti-Pollution: Does Canada Make—or Break—International Law?, 65 AM. J. INT'L L. 131 (1971); R. Michael M'Gonigle, Unilateralism and International Law: The Arctic Waters Pollution Prevention Act, 34 U. TORONTO FAC. L. REV. 180 (1976); Utton, supra note 43. The conflict has now been resolved by article 234 of UNCLOS III, which specifically allows coastal states to prescribe and enforce laws for the prevention, reduction, and control of marine pollution from vessels in ice covered areas in their EEZ. See supra note 151 and accompanying text.
275. UNCLOS III, supra note 3, art. 211(1), 21 I.L.M. at 1310.
276. See supra note 236 and accompanying text.
VESSEL-SOURCE POLLUTION

the Protocol Concerning Specially Protected Areas and Wildlife in the Caribbean,\textsuperscript{277} a number of states expressed the strong desire to regulate the passage of ships through specially sensitive parts of their territorial sea or EEZ. However, rather than take this opportunity to delineate the specific types of coastal state regulations that might be compatible with maritime interests, the United States instead sought to preserve intact the general balance of interests reflected in UNCLOS III.\textsuperscript{278} The result was a provision that restates the competing coastal state's right to "regulate the passage of ships" and the maritime state's "rights of innocent passage, transit passage, archipelagic sea lanes passage, and freedom of navigation."\textsuperscript{279} It gave no indication of how these competing rights should be reconciled in the context of particular problems, such as the passage of ships over sensitive coral reefs. In essence, the compromise language merely postponed the problem, rather than resolving it.

One problem for which additional international rules and standards are particularly needed is that of detecting vessel-source pollution violations and determining what happened. This is one of the main obstacles to enforcement. It is very difficult to detect violations and determine who is responsible, particularly in large sea areas such as the EEZ.\textsuperscript{280} If we are serious about controlling marine pollution, we need to devise and encourage more effective and easily used investigative tools. The challenge is to identify those investigative measures that least interfere with navigational interests. For instance, surveillance is nonintrusive, but boarding and inspecting vessels at sea is intrusive.

A number of monitoring tools could potentially help coastal states keep track of what is going on in their waters and thereby reduce the need to take intrusive measures. These tools include:

- vessel registries;
- transponders that can automatically transmit information on the vessel's position; and

\textsuperscript{277} See supra note 5.

\textsuperscript{278} See Roach, supra note 236, at 13. This balance of interests is reflected in article 211(6), which deals with the question of special areas of the EEZ. See supra notes 186, 269.

\textsuperscript{279} SPAW Protocol, supra note 5, art. 5(2)(c), 5 INT'L J. ESTUARINE & COASTAL L. at 371.

\textsuperscript{280} Even in areas immediately offshore it is hard to monitor what happens. One indication of this is that, out of 900 spills off the coast of the United Kingdom between 1970 and 1975, there were only 18 successful prosecutions, even though 203 spills could be linked to particular vessels. M.I. Drel', Enforcement Measures Against Pollution of the Sea, 12 MARINE POL'Y 297, 299 (1988); cf. Fitch, supra note 29, at 165 (U.S. has difficult time inspecting all vessels using U.S. ports). The problems, of course, are greatly magnified in large ocean areas such as the EEZ, particularly for developing countries with limited resources for surveillance and detection. Given these difficulties, easy-to-monitor international rules and standards are desirable. The 60 liters per mile and 1/15,000 of oil tank discharge standards contained in MARPOL, for example, are much easier to monitor than OILPOL's earlier 100 ppm standard. See M'GONIGLE & ZACHER, supra note 2, at 225-26.
reporting requirements regarding, for example, the vessel's entry into certain zones, position, and route. These types of monitoring tools have assumed increasing importance in the fisheries context, where coastal states have been able to use their control of EEZ fisheries access as a bargaining chip to gain flag state acquiescence. In the absence of flag state consent, however, many view these monitoring requirements as inconsistent with the traditional high seas freedom of navigation. UNCLOS III appears to support this view, since it provides that a coastal state must have "clear grounds" for believing that a vessel has violated a pollution regulation in the EEZ before the coastal state may require the vessel to give even such basic information as its identity, port of registry, and last and next ports of call.

The question, though, that maritime states should ask themselves is not whether such reporting requirements are inconsistent with traditional navigational freedoms, but rather whether the requirements would impose an unreasonable burden on navigation. Here, again, it is interesting to compare the law of the sea with another sphere, where states have been willing to accept much greater regulation—civil aviation. Under the Chicago Convention, air transport is a highly regulated sector. Sixteen annexes have been adopted by the International Civil Aviation Organization, containing detailed regulations on such matters as rules of the air, operation and airworthiness of aircraft, aeronautical telecommunications, and air traffic services. This high degree of international regulation, far from impinging on the ease and effectiveness of civil aviation, appears to have facilitated it. In contrast, attempts to require vessels to carry transponders and report their positions are resisted, even though the result may be that coastal states feel compelled to use more intrusive means of monitoring a vessel's activities. If air traffic can be so extensively regulated without impairing commerce, similar regulations should be acceptable in the maritime sphere.

281. For example, the South Pacific Fisheries Agreement requires vessels to report on zone entry and departure as well as on their positions. Treaty on Fisheries Between Governments of Certain Pacific Island States and the Government of the United States, Apr. 2, 1987, annex I, pt. 4 & sched. 4, T.I.A.S. No. 11,100, at 20, 32, 26 I.L.M. 1048, 1067, 1077.

282. UNCLOS III, supra note 3, art. 220(3), 21 I.L.M. at 1313.


B. New Jurisdictional Rules

New international rules and standards could address the problem of what actions coastal states may take with regard to vessel-source pollution. They cannot address, though, the problem of where coastal states may act. This requires the development of new jurisdictional rules.

With respect to prescription, one possibility is to develop new jurisdictional rules that take account of the relevant state interests with greater particularity than UNCLOS III. Rather than assume that all coastal state regulations infringe on navigation and are hence suspect, we could examine in greater detail whether, and to what degree, a particular assertion of coastal state jurisdiction would in fact hinder maritime commerce. Where the infringement on navigation would be severe, the coastal state should bear an extremely high, if not insurmountable, burden of justification; where the navigational interest is low, a much lesser coastal state interest should suffice. Under this approach, regulations that interfered with recognized shipping routes either would not be permitted at all or, at a minimum, would be highly suspect. In contrast, regulations that applied in an area not often used for navigational purposes or that affected only a limited type of shipping (for example, prohibiting passage over a sensitive coral reef by oil tankers and vessels carrying hazardous wastes) might be evaluated more favorably, particularly if alternate shipping routes exist. Indeed, it might be desirable to develop a concept akin to archipelagic sea lane passage to deal with situations where there are no convenient navigational routes between two points except through a coastal state's EEZ. In such situations, the coastal states might be required to designate sea lanes in which navigation could not be restricted on environmental grounds.

The strict limitations in UNCLOS III on coastal state jurisdiction are most understandable with respect to enforcement, since enforcement measures clearly have the greatest potential for infringing upon navigational freedoms. If a vessel is arrested and detained, even temporarily, this directly impairs its ability to navigate. Nevertheless, not all types of enforcement measures affect navigation to the same degree. Enforcement measures at sea, such as stopping, boarding, and arresting a vessel, im-

286. See UNCLOS III, supra note 3, art. 53, 21 I.L.M. at 1279 (defining archipelagic sea lane passage).
287. See John Knauss, Creeping Jurisdiction and International Law, 15 OCEAN DEV. & INT'L L. 209, 212 (1985) (extending archipelagic sea lanes regime to the EEZ might be viewed as "only a small creep").
288. Cf. UNCLOS III, supra note 3, art. 60, 21 I.L.M. at 1280 (permitting a coastal state to unilaterally establish safety zones not more than 500 meters in breadth around installations and structures in its EEZ, so long as the safety zones do not interfere with the use of "recognized sea lanes essential to international navigation"); Glenn Young, Vessel Traffic Management and Coastal State Enforcement, in LAW OF THE SEA: CONFERENCE OUTCOMES AND PROBLEMS OF IMPLEMENTATION, supra note 10, at 93, 95-97.
pose the greatest restriction on navigation. In contrast, enforcement actions in port constitute far less of a threat to navigation.

Moreover, while enforcement measures on the high seas pose special risks to freedom of navigation, the law of the sea does not forbid such measures altogether. It permits any state to assert jurisdiction on the high seas over pirates and a wide variety of states to arrest persons engaged in unauthorized broadcasting, including "any state where the transmission can be received" or "whose authorized radio communications is suffering interference."290

It may be time to reexamine the list of offenses for which enforcement jurisdiction may be asserted by nonflag states on the high seas. This list, of course, developed historically in response to new needs. But now attempts to expand it are dismissed on the grounds that they would infringe on navigational freedoms. It is not at all clear, though, why pollution on the high seas is of less concern to the world community than, say, unauthorized radio broadcasting or piracy, or why enforcement measures against polluters would be more intrusive. If, for example, a vessel were to dump high-level radioactive wastes 250 miles from shore, the coastal state might have a very strong interest in taking enforcement measures, perhaps much stronger than if the same ship were to engage in unauthorized broadcasting. But, under the Convention, the coastal state's hands are tied. Although allowing enforcement on the high seas for vessel-source pollution raises the danger of the "slippery slope," past extensions of jurisdiction, such as pirate radio broadcasting, have not had this effect.

289. UNCLOS III, supra note 3, art. 105, 21 I.L.M. at 1289.
291. The pirate broadcasting provision is particularly significant since states were willing to accept this "drastic departure from the traditional freedoms of the high seas and the principle of . . . exclusive [flag state] jurisdiction," Robertson, supra note 290, at 101, despite its "weak justification to solve a largely nonexistent problem." Id. at 100.
292. See Mensah, supra note 26, at 251 ("It may be that the problems of polluters have reached the point where 'polluters' of the sea may be likened to pirates."); Teclaff, supra note 195, at 139 (present-day polluter more dangerous than pirate ever was).
CONCLUSION

To the extent that UNCLOS III does not balance the interests of coastal and maritime states fairly, it will not provide a stable regime for the oceans. If it is not a stable regime, the question is whether the balance set forth in UNCLOS III will be revised by unilateral assertions of jurisdiction by coastal states, maximizing instability and conflict, or through multilateral negotiations. Given this reality, it is in the interests of maritime as well as coastal states to cooperate in developing better means of protecting the marine environment. The Convention provides a good start—an umbrella under which more detailed international rules and standards can be elaborated. What needs to be done now is to balance, in more concrete terms, the competing interests of coastal and maritime states, so that expansions of coastal state authority are undertaken in an orderly manner with the least burden on navigation.