THE "OTHER" LAW OF THE SEA

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The 1982 United Nations Law of the Sea Convention (UNCLOS) is, quite understandably, viewed by many as the "be all, end all" statement and source of the law of the sea. Not only does the convention's name imply that it occupies the field, so to speak, but its sheer size, scope, ubiquity, and near-universal acceptance support such a perception. Even the United States, which has not ratified UNCLOS, considers most of its provisions to reflect, or to have achieved the status of, customary international law and thus to be binding on nations that do not specifically decline to adhere to them.

The reality, however, is that while UNCLOS provides an overall framework for legal governance of the world's oceans and codifies such important principles as freedom of the high seas and flag-state primacy, it is by no means the single, definitive statement of the law of the sea. Other significant international conventions are widely accepted and fill some gaps in the UNCLOS framework. Importantly, many of these "other" sources of the law of the sea provide coastal and port states like the United States substantial power and authority to safeguard vital safety, security, and environmental interests within their maritime zones, including the exclusive economic zone, contiguous zone, territorial sea, and internal waters. The United States has ratified many of these conventions and incorporated their provisions into domestic law.

This article will discuss and analyze aspects of this supporting array of international maritime law. It will begin by examining UNCLOS to set out its basic framework for governance of the world's oceans. It

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will next discuss the particulars of less widely discussed sources of the law of the sea in the vessel safety, security, and pollution realms, and demonstrate how they add "fabric," greater fidelity, to UNCLOS's general framework. The article will then discuss specifics of the American port-state control program—the means by which the United States, as a coastal/port state, utilizes control measures made available to it by these "other" sources of the law of the sea to ensure that visiting foreign vessels adhere to minimal international standards. Finally, through an analysis of U.S. port-state control program statistics and recent domestic case law, the article will assess the effectiveness of the legal regime prescribed by this "other" law of the sea.

UNCLOS

UNCLOS is, in many respects, an amazing treaty. Hailed as "possibly the most significant legal instrument of [the twentieth] century," UNCLOS strikes a delicate balance between freedom of navigation and utilization of the oceans on the one hand, and on the other, sovereign rights and control over the ocean and its resources.[1] It solves long-standing issues that had proved to be intractable (e.g., the allowable breadth of the territorial sea) and creates new legal regimes to reflect evolving state practice (such as the exclusive economic zone). Against a backdrop of overweening national self-interest, it achieves a remarkable degree of consensus and compromise in areas that significantly impact national sovereignty and sovereign rights, particularly over resources—matters that have historically caused nations to go to, or threaten, war.[2]

The first major thing UNCLOS does is establish the limits of various maritime zones and delineate who can do what in each zone, in the airspace above them, and with respect to the resources of the water column, the seabed, and the subsoil within each zone.[3] UNCLOS permits a coastal state to declare a territorial sea that extends up to twelve nautical miles from its baseline;[4] it further permits claims to, and exercise of, sovereignty over all waters shoreward of the twelve-nautical-mile line.[5] These waters, comprising the territorial sea and a state's internal waters (the latter term referring to all waters landward of the baseline), are collectively known as "territorial waters." The rest of the world's waters are known as "international waters" and are divided into three zones:[6] a "contiguous zone," which can extend from the outer edge of a nation's territorial sea up to twenty-four nautical miles from its baseline;[7] an "exclusive economic zone" (EEZ), which can extend from the outer edge of a nation's territorial sea up to two hundred nautical miles from its baseline;[8] and the high seas, which are all waters seaward of declared EEZs.[9] International waters are not "owned" by any nation, though, as we shall see, UNCLOS does permit nations to exercise limited sovereign rights in international waters.

Second, UNCLOS codifies the doctrine of flag-state primacy. A "flag state" is a nation that confers its nationality upon ships and grants such ships the right to fly its flag. A ship has the nationality of the state whose flag it is entitled to fly; it does not necessarily have the nationality of, for example, its owner or operator (individual or corporate), crew, etc., unless any of the latter happen to be of the same nationality as the flag state.[10] Thus, a ship that is owned by an American corporation, operated by a Greek shipping company, crewed by a mixed-nationality crew, and flagged in Panama is a Panamanian vessel. It is critically important for vessels, especially those involved in legitimate international trade, to be flagged by some nation. The alternative, not to be flagged by any nation, is to be without nationality, stateless. Vessels without nationality are "international pariahs," without an internationally recognized right to navigate freely on the high seas and subject to the exercise of jurisdiction and control by all nations.[11] Clearly, the benefits to owners and operators of having flag states—ensuring their vessels can navigate freely, without being impeded by officials of non-flag-state nations except in tightly limited circumstances—outweigh the burdens and costs of flagging their vessels in particular nations.

But there are burdens and costs that come with permission to fly a nation's flag—paramount among them subjection to the law-enforcement and regulatory jurisdiction of the flag state. The term "jurisdiction" includes the right to prescribe laws and regulations that are to apply aboard a particular vessel (that is, "jurisdiction to prescribe"), the right to enforce those laws and regulations in civil or criminal tribunals ("jurisdiction to enforce and adjudicate"), and an implied right to "interfere" with the vessel to the extent necessary to exercise that jurisdiction.[12] Not only do vessels flagged by a nation become subject to its criminal laws, but UNCLOS specifically grants flag states the authority and responsibility to assert regulatory control over their vessels as well. This control includes the right and obligation to take regulatory measures designed to ensure safety at sea with regard to, inter alia, the construction, equipment, and seaworthiness of vessels; the crewing of vessels; and the ability of vessels to communicate effectively to avoid collisions.[13] Examples of such measures include periodic surveying of vessels and ensuring that adequate charts and navigational devices are carried; that crews are of appropriate size, certification, and training; and that crews observe "applicable international regulations" concerning safety and environmental stewardship.[14] In short, the flag state assumes, and owners/operators accede to, full responsibility for, and jurisdiction over, vessels that fly its flag.[15]

Having introduced UNCLOS's maritime zones and the notion of flag-state primacy, we can now turn to the regime's most important function—prescribing (in the absence of superseding agreements to the contrary) who can do what, where, on and in the world's oceans.[16] There are four classes of nation-states under

the UNCLOS scheme that have interests and equities in activities in and on the oceans: flag states, port states, coastal states, and third-party states. The extent of a nation's interests and equities will vary, depending on which of the four classes it falls into, the maritime zone at issue, the activities occurring within that zone, and the nationality of the vessel engaging in them. Two equities are of particular significance: first, the right to exercise authority, jurisdiction, and control over vessels;[17] and second, the right to control the utilization of resources, whether living or nonliving.

To start with the high seas—vessels of all nations enjoy "freedom of the high seas," which includes, among other things, freedom of navigation and of fishing.[18] Though not specifically enumerated in UNCLOS, freedom of navigation includes a freedom from interference—that is, the right of a vessel flagged by one state to proceed unmolested by officials from another state.[19] This idea is codified in UNCLOS article 92, which states that on the high seas, flag states have, with limited exceptions, exclusive jurisdiction over vessels that fly their flags.[20] In practical terms, this means—again, with limited exceptions—that only flag-state officials may interfere with the free navigation of their flagged vessels (by stopping and boarding them, for example) and take law-enforcement action as warranted (including arrest and seizure, with a view toward prosecution) aboard them on the high seas.

When a vessel flagged by one state leaves the high seas and enters the maritime zones of a coastal/port state, however, the flag state's jurisdiction over that vessel, though it still exists in full force, is no longer exclusive. The coastal/port state gains concurrent jurisdictional rights over that vessel, rights that increase as the vessel gets closer to land.[21] For example (moving shoreward from the high seas), UNCLOS grants coastal states "sovereign rights" in their EEZ to "explore, exploit, conserve, and manage" the resources, both living and nonliving, both within the water column and on and below the seabed.[22] Included within the concept of sovereign rights is the right of the coastal state to exercise jurisdiction so as to prevent and punish infractions by vessels, wherever flagged, of its resource-related laws.[23] Thus, a foreign vessel suspected of fishing in a coastal state's EEZ in violation of that state's resource laws can be boarded and searched by officials of the coastal state; further, it can be subjected to seizure and enforcement action in tribunals of the coastal state if a violation is confirmed. These coastal-state resource-related jurisdictional rights exist concurrently with flag-state rights; in other words, the flag state could choose to prohibit resource-related infractions by its vessels in foreign EEZs and could punish such violations in its own tribunals, in addition to whatever enforcement actions the coastal state takes. The flag state retains exclusive jurisdiction over its vessels for any *nonresource* infractions committed by or on board its vessels while in another nation's EEZ.[24]

The EEZ jurisdictional regime discussed above is wholly applicable within the contiguous zone as well, as that zone is entirely contained within the EEZ. In addition, UNCLOS empowers a coastal state in its contiguous zone to "exercise the control necessary" to prevent or, in the case of a vessel departing its territorial waters, punish violations of its fiscal, immigration, sanitary, or customs (known as FISC) laws.[25] Thus, for example, the coastal state could exercise jurisdiction as necessary, including enforcement action in its tribunals, against a foreign vessel that was intercepted in the contiguous zone while attempting to smuggle prohibited items from the coastal state (a customs violation). Again, these coastal-state jurisdictional rights in its contiguous zone are exercised concurrently with those of the flag state, which retains exclusive jurisdiction over its vessels in all other respects (i.e., for all nonresource, non-FISC violations) while its vessels are in foreign contiguous zones.

A coastal state's jurisdictional rights over a foreign vessel increase significantly once the vessel crosses from international waters into that state's territorial waters (that is, as defined above, its territorial sea and internal waters). UNCLOS provides a coastal state broad authority in its territorial sea to prescribe laws that apply to all vessels, including foreign vessels. Examples of what the coastal state has the right to prescribe are its criminal, fiscal, immigration, sanitary, customs, pollution, and navigational-safety laws and regulations.[26] There are only two explicit limitations in UNCLOS on the coastal state's jurisdiction to prescribe. First, it may not prescribe laws relating to foreign vessel design, construction, manning, or equipment, unless they merely implement international regulations; as we have seen, and pursuant to UNCLOS article 94, such matters are the province of the flag state.[27] Second, it may not prescribe laws so burdensome that they have the practical effect of preventing vessels from exercising a fundamental navigational right in foreign territorial seas—that is, the right of innocent passage.[28]

UNCLOS defines "innocent passage" as a foreign vessel's right to pass, in a continuous and expeditious manner, through a coastal state's territorial sea as long as during the passage the vessel engages in no act that prejudices the peace, good order, or security of the coastal state.[29] The significance here of the right of innocent passage is that a coastal state's enforcement jurisdiction—whether criminal or civil—over a foreign vessel that is legitimately in innocent passage is limited to a certain degree. First of all, a vessel driven into territorial waters due to distress or entering them to assist another vessel or aircraft is generally exempt from coastal-state enforcement of its domestic laws that would otherwise have governed that vessel's entry.[30] Second, the coastal state generally is prohibited from arresting anyone aboard a vessel in innocent passage or from taking any steps, including conducting a criminal investigation aboard the vessel, in

response to a criminal act that may have occurred before the vessel entered the territorial sea.[31] Finally, with respect to a violation occurring aboard a foreign vessel during its innocent passage, if the vessel has no intention of calling at one of its roadsteads or ports, the coastal state should not exercise its enforcement jurisdiction over that vessel except in very limited circumstances: if the consequences of the violation extend to the coastal state; if the violation is of a kind to disturb the peace of the country or the good order of the territorial sea; if the master of the ship or a diplomatic agent or consular officer of the flag state has requested the assistance of local authorities; or if enforcement proceedings are necessary for the suppression of illicit traffic in narcotic drugs or psychotropic substances.[32] It is important to note that this limitation in coastal-state enforcement jurisdiction with respect to a violation occurring aboard a foreign vessel during its innocent passage is "hortatory" only ("*should* not exercise its enforcement jurisdiction")—that is, not mandatory under international law but a discretionary exercise of coastal-state comity.

A foreign vessel that is in a coastal state's territorial sea but not in innocent passage is subject to the full legislative and enforcement jurisdiction of the coastal state;[33] after all, it is in the state's sovereign waters. Similarly, a port state has full sovereignty over its internal waters and has plenary jurisdiction over foreign vessels while they are there (there is no right of innocent passage in internal waters).[34] The port state retains plenary jurisdiction over a foreign vessel passing through its territorial sea after a call at one of the coastal state's ports for offenses committed there.[35] With respect to a vessel transiting through its territorial sea on the way to its internal waters, the port state has the right to take the necessary steps—including denial of entry—while the vessel is still in the territorial sea to prevent any breach of the conditions to which admission to internal waters is subject.[36]

Although under the UNCLOS framework a coastal/port state exercises increasing jurisdiction over a foreign vessel as the vessel approaches that state—particularly when the vessel intends to call on the state—UNCLOS is deliberately devoid of specifics in many areas. For example, while, as discussed above, UNCLOS permits a coastal state to adopt pollution laws and regulations applicable to foreign vessels in its territorial sea, the regime provides no guidance as to the nature and scope of such laws and regulations, other than that they must be "in conformity with the provisions of [UNCLOS] and other rules of international law."[37] Also, again as discussed above, under UNCLOS the flag state is principally responsible for vessel design, construction, manning, and equipment; coastal/port states may not apply their laws to foreign vessels in this realm, "unless they are giving effect to generally accepted international rules or standards."[38] But UNCLOS provides no guidance as to what such "generally accepted"

standards are, nor does it purport to set or adopt any. As the following section will show, UNCLOS does not need to do so; these standards are set by other widely accepted multilateral maritime treaties—the "other" law of the sea.

THE "FABRIC" OF THE UNCLOS FRAMEWORK

UNCLOS relies for these purposes on dozens of such conventions, but this article will focus on five that are particularly significant and wide-ranging: the International Convention for the Safety of Life at Sea (the SOLAS Convention); the International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code); the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW Convention); the International Convention for the Prevention of Pollution from Ships (MARPOL Convention); and the International Ship and Port Facility Security Code (ISPS Code).

Before turning to the specifics, however, a few background topics need to be discussed. The first of these is the "organization that has probably had the most substantial direct effect on the law of the sea"—the International Maritime Organization.[39] The IMO is the "United Nations' specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships."[40] The convention establishing the IMO was adopted in 1948 and came into effect in 1958; the IMO's first meeting was held in 1959. Most of its work is done in committees, including the Maritime Safety Committee, the Marine Environment Protection Committee, and the Legal Committee. These bodies identify needs for new conventions or for amendments to existing ones. All of the important conventions to be discussed in this section were adopted under the auspices of the IMO, which today oversees the process of keeping these conventions abreast of developments in maritime and related industries.

The second preliminary point is the role of nongovernmental entities in helping flag states carry out their responsibilities. These entities fall into two categories: "recognized organizations" (in this context, classification societies) and "recognized security organizations" (RSOs). A classification society is an organization that "establish[es] and appl[ies] technical standards in relation to the design, construction and survey of marine related facilities including ships and offshore structures."[41] An RSO is an entity that an ISPS signatory state may authorize to undertake certain security-related activities on its behalf, including approval of Ship Security Plans or amendments thereto; verification and certification of ships' compliance with ISPS requirements; and conduct of Port Facility Security Assessments.[42] The significance of these nongovernmental entities, of both kinds, is that the extent to which any given foreign vessel is likely to be selected for safety or security examination depends on the demonstrated,

historical performance not only of its flag state but also of the nongovernmental entity to which those responsibilities have been "subcontracted."

Finally, the "other" law of the sea, like UNCLOS, consists of treaties that are notionally binding only on signatory states. Thus, theoretically, nonsignatory nations do not have to comply with their standards, and coastal/port states cannot formally utilize the specific provisions of these treaties when taking, or anticipating the need to take, control actions aboard vessels of nonsignatory states. But the reality is that the vast majority of nations in general, and flag states in particular, have adopted them. A very few vessels flagged by nonsignatory states do engage in international trade; it can certainly be argued, however, that many of the provisions of the supplementary instruments are so widely adhered to that they have acquired the status of customary international law, binding for those states too, if they have not expressly "opted out." This argument, coupled with UNCLOS's grant of authority to port/coastal states to ensure foreign vessel adherence to "other rules of international law" and "generally accepted international rules or standards," gives such states significant clout over vessels flagged by states that have not specifically adopted those rules and standards.[43]

The SOLAS Convention. The International Convention for the Safety of Life at Sea, 1974, as amended, prescribes minimum standards for the construction, equipment, and operation of ships. The genesis for the convention was the disastrous RMS *Titanic* sinking in 1912, which led to the first iteration of SOLAS in 1914. Since then it has been comprehensively revised several times.[44] The most recent version, that of 1974, entered into force on 25 May 1980; it has been adopted by 159 nations, including the United States, which collectively represent 99.04 percent of world shipping tonnage.[45] According to the IMO, "the SOLAS Convention in its successive forms is generally regarded as the most important of all international treaties concerning the safety of merchant ships."[46]

The real substance of SOLAS is in the annex, which is divided into twelve chapters, as follows: chapter I, "General Provisions"; chapter II-1, "Construction Subdivision and Stability, Machinery and Electrical Installations"; chapter II-2, "Fire Protection, Fire Detection, and Fire Extinction"; chapter III, "Life-Saving Appliances and Arrangements"; chapter IV, "Radiocommunications"; chapter V, "Safety of Navigation"; chapter VI, "Carriage of Cargoes"; chapter VII, "Carriage of Dangerous Goods"; chapter VIII, "Nuclear Ships"; chapter IX, "Management for the Safe Operation of Ships"; chapter X, "Safety Measures for High-Speed Craft"; chapter XI-1, "Special Measures to Enhance Maritime Safety"; chapter XI-2, "Special Measures to Enhance Maritime Security"; and chapter XII, "Additional Safety Measures for Bulk Carriers."

Within each chapter are detailed standards that establish minimum performance benchmarks in each area. Flags states are responsible for their vessels' compliance with these standards and for certifying compliance; examples include the Safety Construction Certificate, Safety Equipment Certificate, Safety Radio Certificate, and Passenger Ship Safety Certificate. The convention permits port states to inspect such certificates aboard foreign vessels and to conduct further examinations, and possibly take control measures, if onboard conditions clearly do not comport with the certificates.

The ISM Code. The International Management Code for the Safe Operation of Ships and for Pollution Prevention was adopted in 1993 in response to human errors or omissions that had apparently played causal roles in significant marine casualties during the 1980s.[47] In 2002, IMO Resolution MSC.99(73) created a new chapter IX ("Management for the Safe Operation of Ships") in SOLAS incorporating the ISM Code into that convention; as a result, all SOLAS signatory nations are also now bound by the code. To accomplish its goal of promoting safety and environmental protection through the minimization of human error, the ISM Code requires shipowners and other persons, such as managers or bareboat charterers, who assume responsibility for operating the ship (we will refer to them below, generically, as "the company") to implement Safety Management Systems.[48] These systems (mostly in the form of checklists) must be documented and maintained in a Safety Management Manual to be kept on board the vessel.

A Safety Management System should contain the following functional elements:

- A safety and environmental-protection policy
- Instructions and procedures to ensure safe operation of ships and protection of the environment in compliance with relevant international and flag-state legislation
- Defined levels of authority and lines of communication between, and among, shore and shipboard personnel
- Procedures for reporting accidents and nonconformities with the provisions of the code
- Procedures to prepare for and respond to emergency situations
- Procedures for internal audits and management reviews.[49]

Examples of instructions and checklists required in the Safety Management Manual are those that define various tasks and assign qualified personnel to

carry out key shipboard operations that impact the safety of the ship and the prevention of pollution; that establish procedures to identify, describe, and respond to potential emergency shipboard situations and establish a program for drills and exercises to prepare for emergency actions; and that establish procedures to ensure that the ship is maintained in conformity with the provisions of relevant rules and regulations and with any additional requirements that may be established by the company.

Flag states are primarily responsible for ensuring their vessels' compliance with the ISM Code, since it is part of SOLAS. A signatory flag state attests to a company's compliance with ISM by issuing certificates, which include a Document of Compliance, issued to the operating company upon verification that it meets ISM requirements, and a Safety Management Certificate, issued to a company's vessels to attest their compliance with these same requirements. Again, as with SOLAS, port states are permitted to inspect such certificates, conduct further examinations, and take control measures aboard foreign vessels as warranted if a vessel clearly does not meet the minimum standards that the certificates are supposed to ensure.

The STCW Convention. Having safety, maintenance, and equipment operation checklists in a Safety Management System is one thing; having qualified, proficient mariners to carry out important shipboard functions is quite another. The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, which was adopted on 7 July 1978 and entered into force on 28 April 1984, was devised to prescribe uniform international minimum standards for the training and certification of, and watch keeping by, mariners. One hundred fifty-four nations, which collectively flag 99.15 percent of global shipping tonnage, have adopted the convention.[50]

The STCW Convention comprises chapter I, "General Provisions"; chapter II, "Master and Deck Department"; chapter III, "Engine Department"; chapter IV, "Radiocommunication and Radio Personnel"; chapter V, "Special Training Requirements for Personnel on Certain Types of Ships"; chapter VI, "Emergency, Occupational Safety, Medical Care and Survival Functions"; chapter VII, "Alternative Certification"; and chapter VIII, "Watchkeeping." The basic requirements of the convention are enlarged upon by the STCW Code, created as part of amendments to the convention in 1995. The convention's chapters and the code provide specific training, experience, and other requirements that a mariner must possess in order to be certified to serve in a particular capacity aboard a vessel.

Unlike with most other IMO-sponsored international agreements, the main onus for compliance with STCW rests not with the flag state but instead with the

country ("administration") certifying a particular mariner as being trained and competent in accordance with international standards.[51] This certification by the administration is done through a statement of compliance in the credentials (licenses, certificates of documentation, etc.) that are issued to merchant mariners.

The MARPOL Convention. The International Convention for the Prevention of Pollution from Ships "is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes."[52] It antedates UNCLOS, being a combination of two treaties adopted in 1973 and 1978, respectively. The convention contains five technical annexes; a sixth annex was adopted via a protocol of 1997. These annexes prescribe, in significant detail, standards to minimize or prevent pollution from ships, whether from accidental discharges or routine ship operations. Adherence to annex I ("Prevention of Oil Pollution") and annex II ("Prevention of Pollution by Noxious Liquid Substances in Bulk") is mandatory for all MARPOL signatory states; compliance with the remaining annexes, III–VI (respectively, "Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form," "Prevention of Pollution of the Sea by Sewage," "Prevention of Pollution from Garbage," and "Prevention of Air Pollution from Ships") is discretionary. One hundred fifty nations, representing 99.14 percent of global shipping tonnage, have signed on to annexes I and II; somewhat fewer, but in no case a number representing less than 82 percent of global shipping tonnage, have signed the other annexes.[53]

As with other such conventions, signatory flag states bear the principal onus of ensuring that their vessels comply with MARPOL's requirements, signifying their vessels' compliance by issuing certificates. These include, as appropriate, an International Oil Pollution Prevention (IOPP) Certificate; an IMO Certificate of Fitness for Ships Carrying Liquefied Gases in Bulk; an IMO Certificate of Fitness for Carriage of Dangerous Chemicals in Bulk; and an International Air Pollution Prevention Certificate. Such certificates are required to be carried by vessels of signatory flag states.

One other point of significance in relation to MARPOL is that whereas under UNCLOS a coastal/port state *may* enact pollution legislation that applies to foreign vessels in waters subject to its jurisdiction, a state party to MARPOL *must* make that convention's provisions applicable to vessels, even foreign ones, in waters subject to its jurisdiction.[54] The United States has codified MARPOL in its domestic law through the Act to Prevent Pollution from Ships (Title 33, *United States Code,* arts. 1901–15) and associated regulations.

The ISPS Code. The International Ship and Port Facility Security Code, a comprehensive set of measures to enhance the security of ships and port facilities,

was developed in response to the perceived threats to ships and port facilities in the wake of the 9/11 attacks in the United States. It is implemented through chapter XI-2, "Special Measures to Enhance Maritime Security," of the SOLAS Convention. The code, which entered into force on 1 July 2004, has two parts, one mandatory and one recommendatory. The United States, as a SOLAS signatory, is bound by the ISPS Code, and has incorporated ISPS into its domestic regulations in Title 33 of the *Code of Federal Regulations,* subchapter H.

ISPS prescribes complementary security measures to be taken both aboard vessels and at port facilities. Contracting governments are required to conduct security assessments of their port facilities and are responsible for ensuring that shipping companies assess all vessels flying their flags. Each facility and vessel is then required to create a security plan (Port Facility Security Plan or Ship Security Plan) outlining the operational and physical security measures the facility or ship will have in place during normal operations and in heightened security circumstances. Every ship is required to carry an International Ship Security Certificate indicating that it complies with the requirements of SOLAS chapter XI-2 and part A (the mandatory part) of the ISPS Code.

There are many more conventions that support the UNCLOS framework, some that further explain and supplement the five discussed here. For example, chapter VII of SOLAS, which makes mandatory the International Maritime Dangerous Goods Code, also variously refers to such supplementary doctrine as the International Bulk Chemical Code, the International Gas Carrier Code, and the International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships.

These conventions—the five discussed and the others like them—do not apply to all vessels; in fact, each has complicated applicability provisions, involving vessel type and tonnage.[55] Nevertheless, it is fair to say that the conventions described above embody the most significant and comprehensive "other" law of the sea, applicable to the vast majority of vessels involved in international commercial service. Such vessels are the principal focus of port states, which desire to minimize the deleterious safety, pollution, and security effects of such vessels for their sovereign territories. Port states protect their vital interests in such areas by an inspection and control regime known as "port-state control."

PORT-STATE CONTROL

Under this regime a port state may take measures that include boardings and inspections, followed by control actions as necessary in response to any identified discrepancies. Collectively, for each port state these measures exist within a comprehensive framework called the "port-state control" (PSC) program. The

American PSC program, which is administered by the U.S. Coast Guard, will be examined as representative of such programs worldwide.

The primary goal of the American PSC program is to eliminate substandard vessels (those "whose hull, machinery, equipment, or operational safety is substantially below the minimum standards required by the relevant convention or whose crew is not in conformance with the safe manning document") from U.S. waters.[56] The first step is to board and inspect vessels for compliance with safety, security, and environmental-protection standards. With thousands of foreign vessels visiting American ports every year and inspection resources spread thin, not every vessel can be boarded and inspected. Instead, the Coast Guard selects vessels for boarding and inspection, by two methods: first, targeting specific vessels likely not to be in compliance, as indicated by their scores on a targeting matrix (discussed below); and second, randomly selecting other vessels, whatever their targeting-matrix scores, just to keep everyone honest.

There are two targeting matrices, one for safety and one for security. The safety matrix—officially called the "Safety and Environmental Protection Compliance Targeting Matrix"—looks at five aspects of a vessel and assigns points based on its demonstrated performance with respect to each.[57] The categories examined are ship management (who the owner, operator, or charterer is); flag state; recognized organization (i.e., classification society); vessel history; and particulars (type of vessel, age, etc.). With respect to point assignment, and using the flag-state category as an example, vessels flagged by a state that has a detention ratio (discussed later) two or more times the average of all flag states will be assigned seven points; if the flag state has a detention ratio above the average but less than twice the average, the vessel is assigned two points; otherwise its score in the "flag state" category is zero.[58] Vessels assigned seventeen or more points by the overall targeting matrix, that have been involved in marine casualties that may have affected seaworthiness, that Coast Guard Captains of the Port determine to be potential hazards to the port or the environment, or whose classification societies have detention ratios of 2 percent or more are all deemed "Priority I" vessels and will be boarded.[59] Vessels that receive seven to sixteen points on the matrix are "Priority II," and those that score six points or lower are considered nonpriority vessels. Priority II vessels may be boarded as resources permit; any non–Priority I vessel may be selected for examination by the PSC random-selection process but will typically otherwise not be examined.[60]

The system is virtually identical on the security side, though the features examined in the security matrix—officially, the "ISPS/MTSA Security Compliance Targeting Matrix"—are somewhat different.[61] The ship-management and flag-state categories examine the same features, though the point assignments are somewhat different. "Recognized organization" in this case looks not at

classification societies but at recognized security organizations (that is, RSOs). The other two categories are the vessel's security-compliance history and its past ports of call. Vessels that score seventeen points or higher, that have had more than three RSO-related control actions in the last twelve months, that have been denied entry to or expelled from a port for ISPS-related reasons in the past twelve months, or whose last five ports of call include any listed in the *Federal Register* as not compliant with the ISPS Code are considered "ISPS I" vessels and are to be examined while still at sea.[62] "ISPS II" vessels (with scores between seven and sixteen points or having new owners or flag states since the last ISPS exam) are examined in port. "ISPS III" vessels are usually not subject to security examinations, unless selected randomly.[63]

Once aboard a foreign vessel, PSC inspectors examine its documents for the necessary certificates of compliance with safety/environmental and security requirements. The international conventions permit officials of the coastal/port state not only to examine the certificates supplied but to determine their validity.[64] For example, the inspectors may require crew members to conduct fire-fighting drills to demonstrate that they are in fact trained in that evolution, as the Safety Management Certificate attests; to lower and raise a lifeboat to ensure that the davit works properly and that the crew knows how to operate it; or to demonstrate the operation of pollution-prevention equipment, such as the oily-water separator (or OWS, a device that removes oil from a ship's bilgewater so the cleansed bilgewater can be discharged overboard).

If, as a result of the inspection, the PSC inspector determines there are "clear grounds" to believe that the vessel has security violations or only a marginal level of safety, the coastal/port state is authorized to impose control measures. The "clear grounds" standard differs, depending on the nature of the problem. Any security deficiency, regardless of nature, is sufficient.[65] With respect to safety or environmental issues, the deficiency has to pose a significant impact to the crew, vessel, port, or environment.[66]

If clear grounds do exist, the possible control measures include, in decreasing order of severity:

- Denial of entry, or expulsion
- Detainment[67]
- Captain of the Port order[68]
- Customs hold[69]
- Restrictions of operation/vessel movement
- Delay

- Comprehensive security inspection[70]
- Letter of deviation[71]
- Flag-state notification
- Lesser administrative/corrective measures.

Enforcement measures available to port states include judicial civil-penalty proceedings for major noncriminal violations, repeat violations, or minor violations not corrected before the vessel returns to an American port; administrative civil penalties for lesser violations; or letters of warning. Also, of course, as discussed in the following section, criminal prosecution is possible in the most egregious cases.

SOME STATISTICS AND A CRITICAL ANALYSIS THEREOF

The United States publishes PSC statistics annually. According to the 2009 report, in that year

> a total of 8,557 individual vessels, from 86 different Flag Administrations [i.e., flag states], made 75,902 port calls to the United States. The Coast Guard conducted 9,657 SOLAS safety exams, and 8,725 ISPS exams on these vessels. The total number of ships detained in 2009 for environmental protection and safety related deficiencies decreased [from the previous year] from 176 to 162. The total number of ships detained in 2009 for security related deficiencies decreased from 27 to 18. During calendar year 2009, we saw a drop in nearly all of the key tracking factors, likely owing to the downturn of world economic conditions.[72]

The report tracks statistics from previous years in three-year groups. For the three-year window ending in 1997, 6.64 percent of PSC inspections resulted in vessel detentions for safety and environmental reasons. During the three years ending in 2009, that ratio dropped to 1.92 percent. For security inspections the statistics do not reach as far back, as the ISPS convention is of relatively recent origin. Nonetheless, the 2009 report indicates that the three-year ISPS control-action ratio has steadily declined, from 0.89 percent for the period ending in 2005 to 0.34 percent for the three years ending in 2009.[73]

These statistics appear to indicate that flag states are taking seriously their responsibilities under the "other" law of the sea, which would obviously be a positive development. However, there are some grounds for skepticism. First of all, these are statistics for vessels arriving in U.S. ports. The United States has been very aggressive in the administration of its PSC program—in fact, in the eyes of some, too aggressive.[74] Whatever the truth of the latter assertion, the mere perception by operators of substandard vessels that their ships might be more stringently examined in the United States than in other nations' ports, with expensive

delays if detained, may make such operators reluctant to send them here. In short, positive safety and security statistics in the United States do not necessarily mean that vessels are everywhere becoming more compliant; it just may mean that problem vessels are going elsewhere.

Second, the numbers, while encouraging, suggest a compliance plateau in recent years, if not a marginal decrease. The three-year average detention ratios (percentages) for environmental and safety noncompliance for the periods between 1997 and 2009 are as follows: in 1997, 6.64; in 1998, 6.02; in 1999, 5.08; in 2000, 3.55; in 2001, 2.69; in 2002, 2.40; in 2003, 2.22; in 2004, 2.30; in 2005, 2.00; in 2006, 1.78; in 2007, 1.60; in 2008, 1.75; and in 2009, 1.92.[75] As these statistics indicate, performance improved dramatically between 1997 and 2001 and only incrementally after that. In fact, in recent years there has been a slight decline in compliance. While the overall numbers are much improved in the past decade, the statistics appear to show that, for cost reasons or otherwise, a compliance ceiling has been reached, upon which it may prove hard to improve.

Finally, there is the valid criticism that the PSC inspections largely focus on documents issued by the flag state (IOPP Certificates, etc.), paperwork that may not truly reflect the material or security conditions aboard the vessel—that may even, as one author has put it, be "used as a façade behind which groups or companies can do whatever they please."[76] A recent case in the United States demonstrates that such disconnects between documentary certification and actual vessel conditions can and do occur. In *United States v. Hugo Pena (et al.),* a vessel surveyor working for Universal Bureau Shipping (a recognized classification society) and acting on behalf of the government of Panama issued the Panamanian-flagged vessel *Island Express I* an IOPP Certificate on 15 April 2010.[77] This certificate attested that the vessel's pollution-prevention equipment, including its oily-water separator, was fully operable. On 4 May, nineteen days later, American PSC inspectors boarded the vessel and discovered that its OWS was in fact out of commission. Subsequent investigation revealed that the class surveyor, a Mr. Pena, had known the OWS was not operable on 15 April but had issued the IOPP Certificate anyway. This was a violation of MARPOL and U.S. law, and it resulted in his felony prosecution and conviction in U.S. court—the first-ever MARPOL conviction in an American court of a class inspector for issuing fraudulent certificates.

Notwithstanding these potential grounds for criticism, it seems that the safety, security, and environmental protection regimes beyond UNCLOS can be, and have been, effective. Anecdotally, despite the construction and operation of supertankers and the increasing quantities of petroleum products being shipped worldwide, spectacular vessel breakups and spills have not occurred in recent years in the numbers that the world experienced even a few decades

ago—*Amoco Cadiz, Torrey Canyon, Exxon Valdez*. Industry statistics back up this impression. The average annual number of significant oil spills (over seven hundred tons) from tankers in the 1970s was 25.4; in the 1980s, 9.3; in the 1990s, 7.9; and from 2000 to 2009, 3.3.[78] The amount of cargo being shipped on the world's oceans is indeed vast and increasing—approximately thirty-three trillion ton-miles in 2009, up from approximately twenty-three trillion ton-miles in 2000.[79] Nonetheless, total ship losses of vessels five hundred gross tons and above have been cut nearly in half during the same period—from nearly 150 in 2000 to fewer than seventy-five in 2009.[80]

There are many multilateral treaties that fill in the UNCLOS framework. These instruments are widely accepted and implemented, and they promote order and the free flow of commerce by prescribing universal standards for vessel construction, operation, and management, for the training and qualification of mariners, and the like. In accordance with the 1982 United Nations Convention on the Law of the Sea, they assign compliance responsibility to flag states. However, in the spirit of "trust but verify," they contain real enforcement mechanisms that enable coastal and port states to safeguard their vital interests, even in the face of occasionally lackadaisical flag-state oversight. Taken together, this "other" law of the sea serves a valuable purpose, the promotion of vessel safety and security and environmental stewardship. Statistics suggest that it is achieving its goals.

NOTES

1. Quotation from statement of Secretary-General Javier Pérez de Cuéllar upon signing UNCLOS in 1982.
2. It is widely acknowledged that the War of 1812 was caused in large part by American resentment of England's practice of stopping U.S. vessels on the high seas and "impressing" sailors from those vessels into British naval service. More recently, a dispute between Spain and Canada in 1995 over the turbot fishery (known as the "Turbot War") in the North Atlantic threatened to devolve into warfare when both nations deployed warships to the disputed area.
3. UNCLOS adopts in large part, and builds upon, maritime zone schemes that were less comprehensively codified in earlier international conventions, such as the 1958 Geneva Conventions on the Law of the Sea.
4. A nation's baseline is typically the low-water line on its shores; however, UNCLOS contains rules in part II (Territorial Sea and Contiguous Zone) that govern establishment of a baseline when facing irregular shoreline features (bays, low tide elevations, etc.).
5. UNCLOS, arts. 2 and 3.
6. "International waters" is not a term of art under UNCLOS, but it is commonly used to describe the waters beyond the sovereign waters of the world's territorial seas.
7. UNCLOS, art. 33.
8. Ibid., art. 57.
9. Ibid., art. 86.

10. Ibid., art. 91.
11. *United States v. Marino-Garcia,* 679 F.2d 1373 (11th Cir. 1982).
12. For example, 14 *United States Code* (hereafter USC) § 89 authorizes designated Coast Guard officials to go on board, at any time, any vessel subject to the jurisdiction of the United States; to address inquiries to those on board, examine ship's documents and papers, and examine, inspect, and search the vessel; to arrest and seize as warranted; and to use all necessary force to compel compliance with orders.
13. UNCLOS, art. 94.
14. Ibid.
15. A flag state may, and typically does, contract with a classification society (discussed in the following section of this article) to assist it in highly technical matters related to vessel design, construction, and maintenance.
16. Nations are free to enter into bilateral or multilateral agreements that modify UNCLOS's general principles. The conventions comprising the "other" law of the sea discussed later in this article are perfect examples of such agreements.
17. Jurisdiction over vessels includes jurisdiction over persons aboard, as well as (often) vessel owners, managers, agents, etc. It is important to note that jurisdiction may not be exercised against warships and other government vessels in noncommercial service. UNCLOS, arts. 32, 95, and 96.
18. Ibid., art. 87.
19. Myres McDougal and William Burke, *The Public Order of the Oceans: A Contemporary International Law of the Sea* (New Haven, Conn.: Yale Univ. Press, 1962), p. 869.
20. Those exceptions include universal crimes (e.g., piracy); flag-state consent, either standing or ad hoc; hot pursuit; constructive presence; right of visit; master consent; and, conceivably, jurisdiction pursuant to a UN Security Council resolution.
21. It should be noted that although a flag state retains full jurisdiction over its vessels wherever they are, the reality is that the flag state will be unable to exercise its jurisdictional rights over a vessel in the territorial waters of another state without the consent of that state to enter those waters and do so.
22. UNCLOS, art. 56(1).
23. Ibid., art. 73.
24. Ibid., arts. 58(1) and (2).
25. Ibid., art. 33.
26. Ibid., arts. 21(1) and 211.
27. Ibid., art. 21(2).
28. Ibid., arts. 24(1)(a), 211(4).
29. Ibid., arts. 17–19. The limited exception to the "continuous and expeditious" passage requirement is that stopping and anchoring is permitted if it is an incident of ordinary navigation; it is made necessary by some life-threatening distress aboard the vessel; or it is incident to a vessel's rendering assistance to another vessel or aircraft in distress.
30. U.S. Navy Dept. and U.S. Transportation Dept., *The Commander's Handbook on the Law of Naval Operations,* Naval Warfare Publication 1-14M (Washington, D.C.: 2010 rev.), sec. 3.2.2. For example, the distressed vessel or would-be rescuer would not be subject to the coastal state's customs, notice of entry, or other laws that regulate the means and manner by which vessels may enter territorial waters. The distressed vessel or would-be rescuer, however, is not entitled to blanket immunity from coastal-state enforcement of its other (non–condition of entry) domestic laws.
31. UNCLOS, art. 27(5).
32. Ibid., art. 27(1).
33. Non-innocent passage would include lingering, loitering, or engaging in an activity that is prejudicial to the peace, good order, or security of the coastal state. UNCLOS, art. 19, contains a list (in the U.S. view, an exclusive list) of activities that are per se prejudicial to the coastal state's peace, good order, or security and that are thus inconsistent with innocent passage.
34. As in the territorial sea, a port state may, as a matter of international comity, decline to exercise its enforcement jurisdiction over a foreign vessel in its internal waters if a crime or incident aboard the vessel does not disturb the "peace of the port" and instead "hand off" disposition of the matter to the flag state.

But see note 21 concerning a flag state's ability to take enforcement action while its vessel is in the territorial waters of another nation.

35. UNCLOS, art. 27(2).

36. Ibid., art. 25(2).

37. Ibid., art. 21(1).

38. Ibid., art. 21(2).

39. R. R. Churchill and A. V. Lowe, *The Law of the Sea,* 3rd ed. (Dover, N.H.: Manchester Univ. Press 1999), p. 23.

40. *IMO: International Maritime Organization,* www.imo.org/.

41. "Classification Societies: What, Why and How?" *International Association of Classification Societies,* www.iacs.org.uk/. IMO Resolution A.739(18) prescribes minimum performance standards for classification societies.

42. ISPS Code, B/4.3.

43. See, generally, Anna Mihneva-Natova, *The Relationship between United Nations Convention of the Sea and the IMO Conventions* (New York: United Nations and Nippon Foundation of Japan, [2005]), available at www.un.org/.

44. There have been many less comprehensive amendments and additional protocols since then.

45. "Status of Conventions Summary," *IMO: International Maritime Organization,* www.imo.org/.

46. "International Convention for the Safety of Life at Sea (SOLAS), 1974," *IMO: International Maritime Organization,* www.imo.org/.

47. Adopted through IMO Resolution A.741(18).

48. A "Safety Management System" is a structured and documented system enabling company personnel to implement effectively the company's safety and environmental-protection policy. ISM Code, sec. 1.1.4.

49. ISM Code, sec. 1.4.

50. See note 45 above.

51. This reflects the reality that in the global shipping world, vessels flagged in one state are frequently crewed by mariners from one or more other states.

52. "International Convention for the Prevention of Pollution from Ships (MARPOL)," *IMO: International Maritime Organization,* www.imo.org/.

53. "Status of Conventions Summary."

54. MARPOL, art. 4(2).

55. U.S. Homeland Security Dept., "Coast Guard Port State Control Targeting and Examination Policy for Vessel Security and Safety," Navigation and Vessel Inspection Circular [hereafter NVIC] 06-03, Commandant United States Coast Guard Publication [hereafter COMDTPUB] P16700.4, change 2 (Washington, D.C.: 27 March 2007), encl. 4, table 4.

56. Ibid., encl. 4, p. 1.

57. U.S. Homeland Security Dept., *Port State Control in the United States: Annual Report 2009* (Washington, D.C.: 2009), p. 8.

58. Ibid.

59. Each U.S. port has a designated federal Captain of the Port (COTP), who is the senior Coast Guard officer with responsibility for enforcing, within that port, "port safety and security and marine environmental protection regulations, including, without limitation, regulations for the protection and security of vessels, harbors, and waterfront facilities; anchorages; security zones; safety zones; regulated navigation areas; deepwater ports; water pollution; and ports and waterways safety" (*Code of Federal Regulations,* Title 33 [hereafter 33 CFR], § 1.01-30).

60. U.S. Homeland Security Dept., *Port State Control in the United States,* p. 8.

61. Ibid., p. 18. The MTSA, or Maritime Transportation and Security Act, is the U.S. law that implements ISPS domestically. MTSA is codified at 46 USC § 70101 *et seq.*

62. U.S. Homeland Security Dept., *Port State Control in the United States.* For the *Federal Register,* see www.federalregister.gov/.

63. Ibid.

64. See, for example, SOLAS, chap. I, regulation 19, and chap. XI-2, regulation 9 (with respect to ISPS verification); also MARPOL, art. 5(2).

65. NVIC 06-03, encl. 4 note l, p. 5.

66. Ibid.

67. A "detention" is a significant control action that triggers, among other things, notification of the vessel's flag state and of the classification society or recognized organization that issued the certificates relating to the subject of the detention; see U.S. Homeland Security Dept., "Port State Control Guidelines for the Enforcement of Management for the Safe Operation of Ships (ISM Code)," NVIC 04-05, COMDTPUB P16700.4 (Washington, D.C.: 1 August 2005), p. 9. NVIC 06-03, encl. 4, app. A provides examples of detainable deficiencies for both safety and security.

68. 33 CFR § 160.111 grants the COTP authority to order a vessel to anchor or to operate in the manner directed when, inter alia, he or she has reasonable cause to believe that the vessel is not in compliance with any law, regulation, or treaty.

69. 46 USC § 60105 requires foreign vessels to obtain customs clearance before departing a U.S. port for another American port or a foreign port. Various authorities permit the U.S. Customs and Border Protection Service to withhold customs clearance of a foreign vessel at the request of the Coast Guard to ensure, for example, that the vessel posts a letter of undertaking or surety bond to guarantee payment of civil penalties assessed or likely to be assessed. See, for example, 46 USC § 70121 and 33 CFR § 160.115.

70. A "comprehensive security inspection" is similar to an expanded vessel examination in the safety/environmental-protection realm; it involves a detailed review of the vessel's security program.

71. 33 CFR § 164.55 authorizes the COTP to permit a vessel to deviate from the equipment and operational requirements of 33 CFR Part 164 if he or she deems the deviation will not impair the safe navigation of the vessel under anticipated operating conditions.

72. U.S. Homeland Security Dept., *Port State Control in the United States,* p. 2.

73. Ibid., p. 5.

74. Foreign crew members have received felony convictions in U.S. federal court for violating American environmental statutes; see, for example, *United States v. Jho,* 534 F.3d 398 (5th Cir. 2008). The United States has been criticized at the IMO and elsewhere for overreaching in this and related cases.

75. U.S. Homeland Security Dept., *Port State Control in the United States,* p. 5.

76. William Langewiesche, *The Outlaw Sea* (New York: North Point, 2004), p. 33.

77. *United States v. Hugo Pena (et al.),* U.S. District Court, Southern District of Florida, case no. 10-60158-CR-WPD(S), decided on 20 December 2010.

78. "Data and Statistics," *International Tanker Owners Pollution Federation Limited,* www.itopf.com/.

79. "Fearnresearch," *Astrup Fearnley,* www.fearnleys.com. Total seaborne trade during the same period rose from 5,595 million metric tons in 2000 to 7,636 million metric tons (estimated) in 2009.

80. "Hull Spring Statistics as of December 31, 2009," *International Union of Marine Insurance,* iumi.com/. The total loss figure was much worse in the 1980s, with over two hundred vessels of five hundred gross tons or larger being lost every year during the first half of the decade.