ARTICLE

INTERNATIONAL PROTECTION OF EARTH'S OCEANS

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The ocean is the central issue of our time: both urgent and eternal. The oceans are gravely under threat from fishing methods, pollution and climate change caused by us. Through them it is now ourselves that are threatened and endangered. The tools to protect the oceans include knowledge, understanding and science. No healthy oceans, no healthy life on this planet.

Albert II, Prince of Monaco

July 9, 2018 at Marine Biological Laboratory, Woods Hole, Massachusetts, quoted in Cape Cod Times, p. A1, July 10, 2018

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I. INTRODUCTION

Viewing Planet Earth from outer space may be an unexpected change in the sight of the oceans that occupy almost three quarters of the surface. Not just the visible sheen of oil pollutions that has been with us for at least one hundred years, but islands of floating indestructible plastic bags and packaging, deadly to sea birds, whales, dolphins, and sea turtles. These islands of waste are also symbols of the chemical pollution that is even more dangerous to human health. In July 2017 the United Nations General Assembly began to discuss a new type of treaty to regulate abuses of ocean areas unclaimed by any nation, called "res nullius" or "no-man's land." Even before negotiations began, opposition was already fierce from those who feel that the oceans are already over-regulated and that natural forces will solve the problem; that is a political issue not examined in this Article. Nor will there be discussion of ocean warming and climate change, already the victims of politics. This Article will discuss the origins, history, purposes, and methodology of international ocean regulation, as the United Nations searches for answers to questions of how to regulate and where to begin the regulation.

^{1.} U.N General Assembly A/Res. 72/73 2017 G.A. Agenda item 77(a). The General Assembly document, dated January 4, 2018 is a text-book on current ocean activities in 17 sections, 370 paragraphs and 55 pages in the English language version entitled "Oceans and the Law of the Seas." The sections are: Implementation of the Convention and related agreements and instruments; Capacity Building; Meeting of States Parties; Peaceful Settlement of Disputes; The Area; Effective Functioning of the Authority and the Tribunal; The Continental Shelf and the work of the Commission; Maritime Safety and Security and flag state implementation; Marine Environment and marine resources; Marine Biodiversity; Marine Science; Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including socio-economic aspects; Regional Cooperation; Open-ended Informal Consultative Process on Oceans and the Law of the Sea; Coordination and Cooperation; Activities of the Division of Ocean Affairs and the Law of the Sea; Seventy-third Session of the General Assembly (2018). See generally id.

The subject matter of this Article is the oceans or High Seas. Today, that means not only surface waters but the territorial seas and historic bays, straits, continental shelf, continental slope, and deep sea beds or abyssal plain. The Author is not a scientist. His first source of information on the oceans is *The Sea Around Us* by Rachel Carson.² The Author was a naval officer and an Admiralty lawyer. This Article is basically chronological, reviewing bilateral, multilateral, and international regulations of ocean waters over a long time period.

Multilateral Treaties

Agreements between two nations dealing with surrender, alliance or peace were familiar in ancient times, but it is generally conceded that the first multilateral treaty was the Treaty of Westphalia in 1648.³ Before the existence of permanent international organizations, such as the League of Nations, it was the responsibility of one of the powers to take charge of a diplomatic conference:⁴ selecting the time and place, limiting the subject matter, issuing invitations, hosting and entertaining sessions, supervising any Final Act and its signatures, and providing archival space for deposit of the Treaty its ratifications and adhesions, and any subsequent protocols of amendment, modification, or additions.⁵ This depository function includes informing all parties of any reservations or understandings that accompanied the actions of governments.⁶

The Flag State Doctrine

By the nineteenth century, the ocean was free to all nations for navigation and fishing, subject to the right of coastal states to exercise control over a water area closely adjacent—usually extending outward from the low water mark for three nautical miles.⁷ In the remaining

^{2.} See generally RACHEL CARSON, THE SEA AROUND US (1951).

^{3.} Treaty of Westphalia, Oct. 24, 1648, 1 Consol. T.S. The Treaty of Westphalia put an end to the Thirty Years War that had begun as a religious war within the Holy Roman Empire in 1618. Battles, sieges, and the sack of cities were in Germany. Negotiations lasted five years. The result was Germany divided by Calvinist, Lutheran, and Catholic rulers. France acquired Alsace and Metz, Toul and Verdun. The Netherlands and Switzerland were recognized as independent powers as the religious origins of the war were forgotten. (The name Westphalia was chosen because the Catholic delegates were in Munster and the Protestants in Osnabrück). See generally C.L. Gross, The Peace of Westphalia, 1648-1948, 42 AM.J. INT'L. L. 20 (1948).

^{4.} See generally 1 L. OPPENHEIM, INTERNATIONAL LAW: A TREATISE 576 (H. Lauterpacht, ed., 8th ed. 1955).

^{5.} *Id*.

^{6.} Id.

^{7.} Ruth Lapidoth, Freedom of Navigation – Its Legal History and Its Normative Basis, 6 J. MAR. L. & COM. 259, 353 (1975). See also HUGO GROTIUS, THE FREE SEA 27, 27 (Richard

water area—the oceans or high seas—nly the nation whose flag a vessel flies, after being legally registered, could interfere in any way with the vessel's operations.⁸ Nevertheless, there were well recognized exceptions: piracy and the slave trade.

II. USES OF MILITARY FORCE AT SEA

War at sea was essentially unregulated by the Holy Roman Empire and the Christian Church, the only supra-national authorities in the years when Western Civilization developed. Respecting relations between nation states, customary international law developed out of the private law of the Romans that had been codified in 534 A.D. by Emperor Justinian I in *Corpus-Juris Civilis*.⁹

Hakluyt trans., 2004) (1604). Hugo de Groot (Grotius) from Delft Holland, is considered the father of international law because he separated law from theology unlike many other writers on international law. The 1604 work was the product of his legal practice for the States General of Holland, but was published posthumously. *See also* Edward Dumbald, The Life and Legal Writings of Grotius (Univ. of Okla. Press) (1969). *Compare* Philip C. Jessup, The Law of Territorial Waters and Maritime Jurisdiction (1927) (discussing historical positions) with H.S. Kent, *Historical Origins of the 3 Mile Limit*, 48 Am.J. Int'l. L. 537 (1954).

8. Customary International Law is the usual source, enlarged over centuries of usage, but affected by bilateral and multilateral agreements. The classic discussion of the principle occurred in 1927 in S.S. Lotus (Fr. v. Turk), Judgment, 1927 P.C.I.J. (ser. A) No. 10 (Sept. 7), a collision of a French flag ship, with a Turkish flag ship outside Turkish territorial waters of the Aegean Sea. Turkey had arrested and prosecuted a surviving French officer for those who died on the Turkish ship, an action sustained by the Court; the judges being divided equally, the President of the Court voted for Turkey. *Id.*

National laws and treaties requiring flag state responsibility are so numerous that an international shipping industry association, the Baltic and International Maritime Council (BIMCO), located in London, has published "Shipping Industry Guidelines on Flag State Performance" while the International Maritime Organization has published the International Safety Management Code (ISM) that lists the responsibilities of the vessel management under international agreements dealing with protection of the environment and the Safety of Life at Sea. BIMCO, INTERCARGO, ICS, ISF, *INTERTANKO*, SHIPPING INDUSTRY GUIDELINES ON FLAG STATE PERFORMANCE (2d ed. 2006). A Self-Assessment Form based on the ISM Code was published in 2001 and is under constant revision. The effect of truthful or non-truthful answers has not yet been tested in court proceedings dealing with limitation of ship owner liability or detention in port after unfavorable inspection results. *Id.*

9. S.P. SCOTT, THE CIVIL LAW 2, 342 (1932) (English translation); H.J. Berman, *The Origins of Western Legal Science*, 90 HARV. L. REV. 894 (1977); A. Nussbaum, *The Significance of Roman Law in the History of International Law*, 100 U.PA. L. REV. 678 (1952). The Romans had a series of religious rituals associated with wars, but these were not part of Corpus Juris Civilis.

A. Piracy

Criminal conduct at sea, especially robbery, has been condemned and punished since ancient times, the perpetrators described as enemies of the human race (Hostis Humani Generis). The captor of pirates could ignore whatever flag and proceed to execution after a "trial." Nations began to codify laws against piracy in the Eighteenth Century and conflicts between customary international law and legislative interpretations began to appear. 11 Nevertheless, maritime powers felt no need for multilateral agreements on the subject until the International Law Commission of the United Nations began the preparatory work for the 1958 Geneva Conventions on the Law of the Sea ("LOS I"). 12 That 1958 Convention on the High Seas (part of LOS I) contains definitions of piracy, pirate ships, and piratical acts and these provisions are also included in the 1982 Law of the Sea ("LOS III"). 13 State-sponsored piracy in peace-time is likely ancient, given Julius Caesar's tales of attacks on pirates of the Eastern Mediterranean.¹⁴ This custom in the Western Mediterranean brought the new United States into its first international conflicts, using naval power against Morocco, Algiers, Tunis, and Tripoli. 15 Piracy continues today. It is not sanctioned by any organized state but tolerated and encouraged by social custom. Witness, for example, the collapsed nation of Somalia and its vigorous industry of piracy of peaceful oil tankers and container ships proceeding out from the Suez and Red Sea to ports in Asia or Africa. 16 Cooperation between naval forces,

^{10.} A.P. Rubin, The Law of Piracy (2d ed. 1998); B.H. Dubner, The Law of International Sea Piracy (1980); J.E. Noyes, *An Introduction to the International Law of Piracy*, 27 Cal. W. Int'l L.J. 105 (1980).

^{11.} The Privy Council, reviewing a case from the Hong Kong Colony described the Acts of Parliament and case law from 1696. In Re Piracy Jure Gentium, (1934 A.C. 586). See also D. CORDINGLY, UNDER THE BLACK FLAG (1991). The American statute is now 18 U.S.C. § 1651 (1934). See U.S. v. Smith, 18 U.S. (5 Wheat) 153 (1820). See also G.E. White, The Marshall Court and International Law: The Piracy Cases, 83 AM. J. INT'L LAW 727 (1989).

^{12.} For LOS I (1958), see Arts. 14-22, 450 U.N.T.S. 82.

^{13.} For LOS III (1982), see Arts. 100-107, 1833 U.N.T.S. 3.

^{14.} G. Walter, Caesar 17, 26-31 (1955), based on Suetonius and Plutarch. *See* P. de Souza, Piracy in the Graeco-Roman World (1999).

^{15.} See D. Lambert, The Barbary Wars (2007), F. Braudel, The Mediterranean and The Mediterranean World in the Age of Phillip II, 754-891 (1966; English translation 1973); and F.C. Leitner, The End of Barbary Terror: America's 1815 War with The Pirates of North Africa (2006).

^{16.} Somalia Pirates were portrayed in the film "Captain Phillips," documenting actual piracy of 2003. CAPTAIN PHILLIPS (Sony Picture 2013). The film portrayed that ransoms were

especially the United States Navy and Coast Guard seems to have diminished if not eliminated the problem.¹⁷

Another form of modern piracy was inspired by the hijacking of aircraft. For example, in an incident known as the Achille-Lauro affair, a group of men took an Italian cruise ship and threatened to kill the passengers unless Israel released fifty Palestinians that were jailed or detained in Israel. 18 The maritime equivalent occurred on the high seas between two Egyptian ports (Alexandria and Port Said) on October 7, 1985. 19 Egyptian officials seemed to have resolved the danger to passengers by offering safe passage to a friendly Arab nation (Tunisia or Algeria) to the occupiers, but United States intercepted the flight and forced the plane to land in Italy, which then held trials that convicted them of violations of Italian law.²⁰ Extensive debate over the issue of piracy persuaded the IMO Council and Assembly that a new treaty was essential, changing the offense from piracy to "terrorism."²¹ Using the examples from Aviation Law as guides, 22 a diplomatic conference at Rome in March 1988 produced the International Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation.²³

B. The Slave Trade

Great wealth to a very few and great misery to a very great many was the result of four hundred years of this evil trade. Accurate records of the numbers do not exist, but it is possible that as many as sixteen

paid by insurers. The International Maritime Bureau (IMB) a branch of the I.C.C. and the International Transport Workers Federation (ITF) keep careful records of Somali piracy.

^{17.} See generally M. Sterio, Fighting Piracy in Somalia and Elsewhere: Why More Is Needed, 33 FORDHAM INT'L. L.J. 372 (2010).

^{18.} M. Hoffman, Terrorism on the High Seas: The Achille Lauro Piracy and the IMO Convention on Maritime Safety, 82 Am. J. INT'L L. 269, 273 (1988).

^{19.} *Id*.

^{20.} Id.

^{21.} IMO Assembly Res. A., Measure to Prevent Unlawful Acts Which Threaten The Safety of Ships and the Security of Their Passengers and Crews, 584 (14) (Nov. 20, 1985).

^{22.} The first international convention dealing with crimes aboard aircraft was the Tokyo Convention of 1963, 704 U.N.T.S. 219, which dealt with the interaction of territorial and aircraft flag state jurisdictions; it had been prepared before hijackings had proliferated. A first effort at the control of hijacking was the Hague Convention of 1970, 860 U.N.T.S. 105, dealing only with aircraft in flight. A more effective convention dealing with all forms of sabotage to aircraft and the safety of flight was the Montreal Convention of 1971, 974 U.N.T.S. 177. The object of the later conventions is to force signatories to prosecute or extradite offenders.

^{23. 1678} U.N.T.S. 201. A protocol deals with fixed platforms on the continental shelf as subjects of terrorism.

million Africans were taken from their homes to the Americas, and as many as six million may have perished during the voyage. ²⁴ In Great Britain, the efforts of William Wilberforce against the slave trade in 1807 inspired British efforts to suppress the slave trade at sea, while France, Spain, Portugal, Holland, and Denmark were still engaged in the slave trade.²⁵ In the United States, congressional efforts to inhibit the trade began in 1794, even though the Constitution itself protected the trade until 1808, by which time the Framers thought it would have disappeared. Great Britain sought United States cooperation in naval actions against the trade over many years, but without success. Finally, in 1842 in the Webster-Ashburton Treaty, the United States agreed to station a naval squadron off Africa to suppress American slave traders.²⁶ In 1862, President Lincoln directed Secretary Seward to negotiate an enlarged treaty area with more comprehensive provisions.²⁷ The 1862 Treaty with Great Britain for Suppression of the African Slave Trade, was the result.²⁸ In 1890, because of earlier European negotiations on the Congo, an international conference in Brussels produced The General Act for the Repression of the African Slave Trade.²⁹ Both the League of Nations and the United Nations have kept the subject alive because slavery still lives.³⁰ The historic word

^{24.} Webster-Ashburton Treaty, 8 Stat. 572, art. VIII (1842). This 1842 Agreement also deals with the boundaries and extradition. For a discussion of European slavery, see generally H. THOMAS, THE SLAVE TRADE: THE STORY OF THE ATLANTIC SLAVE TRADE 1440-1870 (1997). For a description of the ships, see M. REDIKER, THE SLAVE SHIPS 66-72 (2007) and D. ELLIS & D. RICHARDSON, ATLAS OF THE ATLANTIC SLAVE TRADE (2001).

^{26.} ALLAN NEVINS, THE WAR FOR THE UNION: WAR BECOMES REVOLUTION 242-274 (1960).

^{28.} Treaty of Apr. 7, 1862, 12 Stat. 1225. T.S. 383. See generally D. FEHRENBACHER, THE SLAVEHOLDING REPUBLIC: AN ACCOUNT OF THE UNITED STATES GOVERNMENT'S RELATIONS TO SLAVERY 190 (2001).

^{29.} General Act for the Repression of the African Slave Trade, July 2, 1890, 27 Stat. 886, T.S. No. 383. The enormous region was constituted as the Congo Free State in 1885 but became a Belgian Colony from 1908 to 1960. See generally A. HOCHSCHILD, KING LEOPOLD'S GHOST

^{30.} See International Convention to Suppress the Slave Trade and Slavery, Sept. 25, 1926, T.S. 778. See also Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery, Sept. 7, 1956, 266 U.N.T.S. 3 (This treaty was a product of UNESCO). See also LOS III, supra note 13, art. 110.

"slave" and "slave trade" no longer seem appropriate for present times where the word now used is "trafficking." ³¹

C. Humanitarian Prohibitions: Drugs, Liquor, and Weapons Involving Maritime Transport

1. Drugs

After the Boston ship *Columbia* showed the way to profitable trade in Chinese tea, spices, silk, and porcelain in 1795, it was not long before American traders discovered the lively and more profitable sea trade in opium. Traders from New Bedford, Massachusetts and other New England ports in the 1830s and 1840s developed clipper ships for the fast and silent opium trade in China, Japan, Siam, Malaya, and the Philippine Islands from India.³² Some of the most respectable fortunes of Boston, New York, and Philadelphia (and their charities) were started in the opium trade in Hong Kong and the Pearl River Delta.³³

In the United States, naval officers visiting or inspecting American ships reported the opium cargoes and their destinations to Asian nations that were attempting to suppress opium addiction, resulting in formal bilateral agreements with Siam (now Thailand) as early as 1833, China in 1844 (after British victory in the Opium War of 1842), and Japan in 1858. ³⁴ Western European Maritime Powers would not involve themselves with the Asian Opium industry until opium dens and recreational drugs became prominent in their cities. Nations reacted with harsh local prohibitions before recognizing the maritime nature of the problem. ³⁵ In the Netherlands, the 1910 draft of the International Opium Commission was submitted to a diplomatic conference at the Hague resulting in the 1912 International Convention for the Suppression of the Abuse of Opium and Other Drugs. ³⁶ Drug import and export was mentioned in the 1919 Treaty of Versailles; ³⁷

^{31.} See, e.g., Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, Nov. 27, 2000, T.I.A.S. No. 13127, 2237 U.N.T.S. 319. It is a protocol to the United Nations Convention Against Transnational Organized Crime.

^{32.} SAMUEL E. MORISON, THE MARITIME HISTORY OF MASSACHUSETTS 273-79 (1941); J. BRADLEY, THE IMPERIAL CRUISE: A SECRET HISTORY OF EMPIRE AND WAR 289-296 (2009). In fact, Great Britain fought a war with China in 1842 to protect its trade in Indian opium.

³³ *Id*

^{34.} HENRY REIFF, THE UNITED STATES AND THE TREATY LAW OF THE SEA 127 (1959).

^{35.} Id.

^{36. 1} Bevans 612.

^{37. 2} Bevans 235, art. 295.

featured in the work of the League of Nations: The 1925 International Opium Convention;³⁸and noted in the 1936 International Convention of 1936 for the Suppression of the Illicit Traffic in Dangerous Drugs.³⁹ Duties of suppression were imposed on flag states without an enforcement mechanism by other states.⁴⁰

The UN work on dangerous drugs ought to have quickly followed the end of the Second World War, during which new and more dangerous drugs were developed, but it was forty years before serious action was contemplated.⁴¹ The 1984 General Assembly authorized the drafting of a new convention.⁴² A diplomatic conference at Vienna in December, 1988 produced the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.⁴³ Minimum changes from the League of Nations in flag state enforcement, but flag states may authorize other states to board and search suspected vessels.⁴⁴

2. Liquor

19th Century America not only turned opposition to the Slave Trade into Abolition of Slavery and a Civil War, but also treated morality issues in the same way. Thus, what began as "temperance" evolved into "prohibition." Western European nations did not follow the path to prohibition for their domestic populations, but would be persuaded to prohibit liquor in their colonies. It was American entry into the First World War that led to the Eighteenth Amendment to the United States Constitution. During its fourteen years, the United States' efforts at a multilateral treaty were firmly discouraged, but a series of agreements were made, and all nations could agree on

^{38.} International Opium Convention, Feb. 19, 1925, 81 L.N.T.S. 319.

^{39.} Convention of 1936 for the Suppression of the Illicit Traffic in Dangerous Drugs, June 26, 1936, 198 L.N.T.S. 301.

^{40.} Id.

^{41.} *Id*.

^{42.} G.A. Res. 39/41. 1, para. 9 (Dec. 14, 1984).

^{43.} U.N. Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Dec. 20, 1988, 1520 U.N.T.S. 204.

^{44.} Id. art. 17.

^{45.} U.S. CONST. amend. XVIII § 1 (repealed 1933).

^{46.} The spur to national prohibition was the Lever Food and Fuel Control Act, 40 Stat. 276, (1917) that forbade the use of food stuffs (grain) for distillation in war time. The Volstead Act to enforce national prohibition, 41 Stat. 305 (1919), survived President Wilson's veto. Amendment XVIII forbid the "manufacture, sale, or transportation of intoxicating liquor." U.S. CONST. amend. XVIII § 1 (repealed 1933).

protecting the revenue thus the 1925 treaty to prevent smuggling of liquor.⁴⁷

3. Weapons

Humanitarian concerns never bothered the vigorous world-wide industry in arms until the supply of arms to colonial peoples seeking independence became a problem. Anticipating the League of Nations, international agreement on maritime shipments of weapons began with the 1919 Convention on the Control of Trade in Arms and Ammunition. During the League of Nations there was prepared the 1925 International Convention on Supervision of International Trade in Arms and Ammunition and in Implements of War, 49 a futile effort at disarmament on land to parallel the Naval Disarmament Conferences of 1921 and 1927. The arms industry was essentially untroubled by these efforts. 50

D. Prize and Privateers

17th and 18th Century Wars at sea had moved from sea battles between belligerent navies to efforts to disrupt the enemy nations' trade by use of privately owned and operated vessels to prey on enemy shipping.⁵¹ Enemy vessels and their cargoes were called *Prize* and could be condemned and sold by Admiralty courts for the benefit of the captor—ship owners who were usually called *privateers*. In the former

^{47.} The Supreme Court made these bilateral treaties necessary by extending prohibition to foreign flag vessels in U.S. waters. *Cunard v. Mellon*, 262 U.S. 100, 128-129 (1923) (failing to mention possession and consumption). The United States and the United Kingdom reached agreement on the problem of passenger liners. 43 Stat. 761 (1924). The League of Nations produced an anti-smuggling Convention at a conference at Helsinki in August 1925. This convention authorized the "HOT PURSUIT" of offenders, a big issue during U.S. prohibition. Convention for the Suppression of the Contraband Traffic in Alcoholic Liquors art. 9, Aug. 19, 1925, 42 L.N.T.S. 73. *See* "The I'm Alone" Arbitration, S.S. I'm Alone, 3 Rep. Int'l Arb. Awards 1609, 1614 (1933). Hot Pursuit from the territorial sea now involves the twenty-four-mile contiguous zone and the two-hundred-mile E.E.Z. *See* LOS III, *supra* note 13, art. 111 (1994).

^{48.} Convention and Protocol for the Control of the Trade in Arms and Ammunition, Sept. 10, 1919, 7 L.N.T.S 331.

^{49.} WILLIAM M. MALLOY, TREATIES, CONVENTIONS, INTERNATIONAL ACTS, PROTOCOLS AND AGREEMENTS 1923-1937 4903 (1925).

^{50.} S. Doc. 75-104, Vol. IV Treaties, Conventions, International Acts, Protocols and Agreements Between the United States and Other Powers 1923-1937 4903 (Malloy) (1938).

^{51.} DONALD A. PETRIE, THE PRIZE GAME: LAWFUL LOOTING ON THE HIGH SEAS IN THE DAYS OF FIGHTING SAIL 3 (1999).

colonies, now states, the Continental Congress authorized them to issue letters of "marque and reprisal."⁵² The British Admiralty Court issued hundreds of decisions on Prize law in the period 1793-1815.

In 1605 Hugo Grotius wrote De Jure Praedae *on the Law of Prize*, identifying the practices that differentiated the actions of belligerent nations from piracy.⁵³ By the 18th century, a code of unwritten practices had developed whereby belligerent states could send out private merchant ships to destroy and plunder the shipping of declared enemies by the issue of "Letters of Marque (Mark) and Reprisal" to legitimize this form of piracy. With a very small Navy, the United States fought the War of 1812 by privateers.⁵⁴

The first multilateral effort to regulate war at sea was the 1856 Declaration of Paris, ⁵⁵ a product of the Crimean War. Use of private merchant vessels for belligerent purposes (privateering) was abolished and there were rules to protect neutral ships and neutral cargoes, excluding contraband. ⁵⁶ Paper blockades (the absence of naval vessels actually patrolling the approaches to enemy harbors) were also abolished. ⁵⁷ Much more significant in the regulations of war at sea were the Hague Peace Conferences of 1899 and 1907. ⁵⁸

III. COMMUNICATION

The telegraph by wire over land was introduced by Samuel F.B. Morse, an artist and inventor in 1844 after twelve years of experiments and the development of the Morse Code;⁵⁹ he received a patent in 1847.⁶⁰ Within ten years, speculators and promoters were discussing the possibility of laying cables on the ocean bottom.⁶¹ An idea seized by a successful businessman, Cyrus W. Field who raised the funds for

^{52.} Resolution of Apr. 3, 1776. The 1787 Constitution created a federal Admiralty power in Article III.

^{53.} See generally Hugo Grotius, De Jure Praedae on the Law of Prize (1605).

^{54.} See generally Ronald D. Utt, Ships of Oak, Guns of Iron: The War of 1812 and the Forging of the American Navy (2009).

^{55.} C. COLOMBOS, THE INTERNATIONAL LAW OF THE SEA, 457-68 (6th ed. 1967); see generally Charles H. Stockton, *The Declaration of Paris*, 14 AM. J. INT'L L. 356 (1920).

^{56.} COLOMBOS, supra note 55; Stockton, supra note 55.

^{57.} COLOMBOS, supra note 55; Stockton, supra note 55.

^{58.} See infra note 140 and accompanying text.

 $^{59.\}$ See generally Lewis Coe, The Telegraph: A History of Morse's Invention and Its Predecessors in the United States (2003).

^{60.} Id.

^{61.} Id.

several under-water cables from Newfoundland (Trinity Bay) to Ireland (Valentia in Kerry). 62 After three failed attempts, a cable that he had laid in 1858 worked briefly. 63 That original cable soon also failed, but after the American Civil War was replaced in 1866 after other nations began their own installations. It was likely that the trawler fishing industry would be a major problem, but drilling for oil had not begun. By 1884, all major powers were using such transmissions and the need for protection from deliberate interference was apparent. France called a diplomatic conference at Paris in 1882 attended by twenty-six nations. 64 They produced a multilateral treaty, the International Convention for the Protection of Submarine Cables. 65 This treaty was amended at London in 1913, but it is still in force. 66

While the oceans are not the medium of transmission, the inventions of Guglielmo Marconi's wireless telegraphy became essential for maritime safety. The German Emperor convened at Berlin in 1906 a conference which concluded an international convention on Wireless Telegraphy. ⁶⁷ This was the first of a great many international efforts to deal with a new technology and industry. A 1913 Conference modified the Marconi's 1906 effort, but wireless telegraphy assumed such vital importance in the First World War that a new series of agreements was soon demanded in the Treaty of Washington of 1922. ⁶⁸

While cable and radio telegraphy were available for commerce, military and other governmental purposes, the high cost proved to be a considerable deterrent for ordinary communications between families, friends, and small businesses. Thus, communication by letter (the mail, or the post) had expanded to a level where government subsidies were

^{62.} See generally JOHN STEELE GORDON, THREAD ACROSS THE OCEAN: THE HEROIC STORY OF THE TRANSATLANTIC CABLE (2002). Field and his British scientist adviser, Lord Kelvin, used a consortium of four separately incorporated companies.

^{63.} COE, supra note 59.

^{64.} *Id*

^{65.} Mar. 14, 1884. T.S. No. 380. The United States and forty other nations remain signatories to the original convention that was preserved in the Treaty of Versailles, art. 282, Jun. 28, 1919, S. Exec. Doc. No. 51; It continues in the 1958 Geneva Conventions on the Law of the Sea (art. 26, 1963, 450 U.N.T.S. 96.) and the 1982 United Nations Convention on the Law of the Sea (art. 58(1), 87(c), 112, 113, 114, 1833 U.N.T.S. 44, 57, 64, 65). Today, miles of fiberoptic cable laid on the ocean bottom by Amazon, Facebook, Google, Microsoft and others connect the continents. Adam Satariano, *How the Internet Travels Across Oceans*, N.Y. TIMES (Mar. 10, 2019) https://www.nytimes.com/interactive/2019/03/10/technology/internet-cablesoceans.html [https://perma.cc/CPB8-6BXW].

^{66.} Mar. 14, 1884. T.S. No. 380.

^{67. 1906} Berlin Conference, July 5, 1912, T.S. No. 581. See REIFF, supra note 34 at 37.

^{68. 1922} Washington Treaty, 1924, 25 L.N.T.S. 202.

available in many countries to ship-owners who contracted to carry mail and packages, but issues dealing with costs and combinations of land and sea carriage defied easy solution. At the Paris conference in 1863, the attendees did not produce a treaty, but uniform principles for bilateral agreements were prepared. Eleven years later, a diplomatic conference at Berne, Switzerland formed an international organization, known since 1878 as the Universal Postal Union, still operational.⁶⁹ The work on communications is now the responsibility of the International Telecommunications Union, a special agency established in 1947.⁷⁰

IV. MARITIME SAFETY

The idea of regulating vessel operations to protect life and property at sea by treaty began in Great Britain in 1862 when the British Government invited other nations to adhere to its Rules of the Road.⁷¹ Having very narrowly avoided war with Great Britain in late 1861 and early 1862 because of the Trent Affair, Congress and the Lincoln Administration adopted a more careful and cooperative attitude towards Great Britain thereafter.⁷² An anti-slave trade treaty was created at Washington on April 7, 1862, with additions on February 17, 1863.⁷³ Congress enacted an American version of the 1863 British Rules of the Road on April 29, 1864.⁷⁴

American participation in the 1853 Brussels Congress on Meteorology (largely due to the work of Lt. Matthew Fontaine Maury, USN)⁷⁵ and the obvious continent-wide territory of the United States

^{69.} See REIFF, supra note 34, at 36, 107, 257.

^{70.} *History*, INT'L TELECOMM. UNION (last visited Feb. 10, 2020) https://www.itu.int/en/about/Pages/history.aspx [https://perma.cc/97CR-9YDQ].

^{71.} D. Owen, *The Origin and Development of Marine Collision Law*, 51 Tul. L. Rev. 759, 784 (1977) (33 maritime nations adopted these rules of 1868).

^{72.} ALLAN NEVINS, THE WAR FOR THE UNION: THE IMPROVISED WAR 387-94 (1959).

^{73.} See Lyons-Seward Treaty art. 1, Apr. 7, 1862, 12 Stat. 1225.

^{74.} An Act Fixing Certain Rules and Regulations for Preventing Collisions on the Water, 1864, 13 Stat. 58. The 1864 Congress adopted the Rules of the Road for inland waters as well as the oceans, but this was without the input of the harbor pilots, Great Lakes shipping and the river shipping industry resulting in significant contradictory rules by later Congresses. *See* Inland Rules, Great Lakes Rules and Western Rivers Rules, all repealed in 1981 and replaced by new Inland Rules, 33 U.S.C. § 2001-38 (2004). *See also* Coast Guard and Maritime Transportation Act of 2004, P.L. No. 108-293 (2004), 118 Stat. 1028.

^{75.} Matthew Fontaine Maury was born in Virginia, He became a naval officer by apprenticeship (before the 1845 Naval Academy) but was soon devoted to science. In 1836, he published *A New Theoretical and Practical Treatise on Navigation*. In 1843, he became

were factors prominent in the 1881 International Geographical Congress' demand for a solution to the problems of conflicting time zones, chaotic for railroads, and the prime meridian. The accidental administration of President Chester A. Arthur and his Secretary of State, James G. Blaine, with the sanction of Congress, invited all powers to a conference at Washington in November 1884 to discuss the problems of the Prime Meridian. The Shipping Industry, largely controlled and insured from London, had solved the problem by use of the Meridian of the Royal Naval Observatory at Greenwich on the River Thames, east of London. The statesmen concurred, and the 1884 Conference agreed that the meridian of Greenwich would be the starting point for east and west longitudes and for twenty-four zones of identical time.

A. Multilateral Conference on Maritime Safety

The idea of the treaties on maritime safety issues was carried out by the new administration of President Benjamin Harrison⁷⁹ in the Washington Conference of 1889 although the idea had been proposed by Cleveland's first Secretary of State, Thomas F. Bayard.⁸⁰ The

Superintendent of the U.S. Navy's Dept. of Charts and Instruments and the Naval Observatory where he studied winds, currents, sailing directions, meteorology, hydrography, and in 1855, he published the first text on oceanography, *The "Physical Geography of the Sea.*" He left the US Navy in 1861 to join other Virginians in the Confederacy which sent him to London. After the war he became a professor at the Virginia Military Institute (V.M.I). *See generally* C.L. LEWIS, MATTHEW FONTAINE MAURY: THE PATHFINDER OF THE SEAS (1927).

- 76. See generally Lt. David Sobel, Longitude (1995).
- 77. James G. Blaine was a Republican Member of Congress from Augusta, Maine from 1863-1876, and Speaker from 1869-1875; he was an unsuccessful presidential candidate in 1876, 1880 and 1884, and a Senator from Maine 1876-1881. He served twice as Secretary of State: 1881 under Garfield and Arthur, and again in 1883 under Harrison. As speaker during the Grant presidency he could not avoid accusations of graft and corruption. *See* D.S. MUZZEY, JAMES G. BLAINE: A POLITICAL IDOL OF OTHER DAYS 392-47 (1934).
- 78. The Median of Greenwich was authorized for British use in the world's largest Navy and Merchant Marine after 1773 by the Royal Naval Observatory, founded by King Charles II in 1675. See D. SOBEL, LONGITUDE 166-68 (1995) and the Proceedings of the Prime Meridian Conference, H. Ex. Doc. No. 14 at 111-17 (1884).
- 79. Benjamin Harrison, History (last visited Feb 10, 2020) https://www.history.com/topics/us-presidents/benjamin-harrison [https://perma.cc/M8HP-BRLY]. Benjamin Harrison, grandson of Whig President W.H. Harrison, was a lawyer, Civil War political general, and Republican Senator from Ohio. He defeated Grover Cleveland's 1888 reelection bid but was defeated by Cleveland in his own 1892 reelection bid. Harrison's principal adviser in international matters was Secretary of State Blaine.
- 80. Thomas F. Bayard had been Democrat Senator from Delaware (his father, uncle and grandfather were also senators from Delaware). He had apprenticed with international traders in

Washington Conference attracted all the maritime powers, but not their merchant marines or insurers; only Great Britain, the Netherlands, and the United States sent delegates from the Admiralty Bar and the merchant marine while France and Germany sent Admiralty Court officials. Navies were heavily represented: fourteen delegations featured experienced naval officers. President Harrison greeted the delegations along with Secretary of State Blaine. Rear Admiral Samuel R. Franklin, USN, was the unanimous choice for President of the Conference of which the proceedings (in English and French) were transcribed verbatim. The Washington Conference on Maritime Safety met from October 16 to December 31, 1889. During some of this time the Pan American conference that created the Pan American Union was also in session from October 2, 1889 to April 19, 1890. The Pan-American conference was the principal interest of Secretary of State Blaine who had pursued a Latin-American policy since 1880.

The 1889 Washington Conference was remarkably prescient, discussing a number of issues that produced later multi-lateral solutions:

- 1. Depths to which vessels may be safely loaded (the 1924 Load-line Convention)
- 2. Vessel seaworthiness (1948 SOLAS)
- 3. Compulsory Sea lanes (1977 Rules of the Road)
- 4. Navigation in Ice in the North Atlantic (1913 Ice Patrol)
- 5. Uniform systems of buoys (1933 C and T)

Philadelphia, New York and with his father; admitted to the Delaware Bar in 1851, he served as United States Attorney for Delaware, 1855-57. In the Senate he served on the Electoral Commission in 1876 and was unsuccessful presidential candidate in 1876 and 1880. In Cleveland's Second Administration he was the first "Ambassador" to Great Britain, 1893-97. He was a strong proponent of Anglo-Saxon unity, although his heritage was Huguenot French. See C.C. TANSIL, THE FOREIGN POLICY OF THOMAS F. BAYARD xi-xiii, xiv-xvii, 654 (1940). See generally ALLAN NEVINS, GROVER CLEVELAND, A STUDY IN COURAGE, 404-450 (1933).

81. See generally Final Act and Protocols of Proceedings of the International Maritime Conference of 1889, Ex. Doc. No. 53. The British Rules had been slightly amended in 1884. (Austria-Hungary, Chile, China, France, Great Britain, Italy, Japan, Mexico, Netherlands, Norway, Russia, Spain and Sweden. Delegations without naval or admiralty experts were: Belgium, Denmark, Siam and Venezuela.) The 6 member U.S. Delegation headed by Rear Admiral Samuel R. Franklin, USN, prepared a lengthy list of topics for the Conference, the "Detailed Programme" including Sound and Light Signals, Rules to Prevent Collisions, Rules for Construction of Seaworthy Vessels, Load Lines, Vessel Identification Marking, Life Saving Equipment, Qualifications of Officers, Traffic Lanes in Congested Waters, Wreck Removal, Uniform System of Buoys and a Permanent Maritime Commission. *Id.*

- 6. Uniform Reporting of Wrecks
- 7. Uniform Qualifications for Merchant Marine Officers and Watchstanders (1976 ILO and 1978 STCW)
- 8. A Permanent Committee of Maritime Safety Experts (the 1958 IMCO and the 1982 IMO.⁸²

The actual results of the Conference were the uniform *Rules of the Road*, based on the 1865 British Board of Trade Rules. 83 The complexity and number of the Rules seemed to eliminate a single treaty. Instead, the choice of individual national (but uniform) legislation was adopted. The United States Congress quickly acted in 1890. Great Britain followed but legislation for uniform rules was not achieved before the First World War stopped the treaty process. Comparative Law problems of Collision and Salvage were in the care of a new non-governmental organization ("NGO"), Comité Maritime International in a diplomatic conference in 1910 at Brussels that produced treaties on salvage and collisions at sea. 84

The loss of RMS Titanic on April 15, 1912, with more than 1500 deaths, galvanized the British Government into maritime safety action. Secretary Great Britain invited all powers to attend a conference at London from November 12, 1913 to consider aspects of Safety of Life at Sea. The conference resulted in the North Atlantic Ice Patrol, Agreements on the use of Radio-Telegraphy on Merchant Vessels, Standards of Water-tight Integrity in the Construction of Vessels, and Rules concerning life-saving equipment and fire protection. He work of this conference would have to be repeated; by August 1, 1914 Europe was at war and maritime safety gave way to a war of submarines and destroyers. After the war, the British Government resumed its sponsoring function on maritime safety: The 1929 Convention on the Safety of Life at Sea ("SOLAS") revised the 1914 Rules and prepared for the world's oceans to be travelled by larger, faster and more dangerous ships. After the Second World War, and

^{82.} International Maritime Conference, supra note 81.

^{83.} See generally Final Act and Protocols of Proceedings of the International Maritime Conference of 1889, Ex. Doc. No. 53, 51st Cong. 1st Session (1890). The British Rules had been slightly amended in 1884.

^{84.} See infra note 258.

^{85.} See, e.g., W. LORD, A NIGHT TO REMEMBER (1955).

^{86. 1913} International Convention on Safety of Life at Sea, 1914, T.S. No. 910. See Reiff, *supra* note 24, at 104.

^{87.} Id.

^{88.} T.S. 910.

in the absence of IMCO (until 1959) the British Government called the 1948 SOLAS Conference.⁸⁹ This work continued in the 1960 SOLAS,⁹⁰ the 1974 SOLAS,⁹¹ and its 1978 Protocol,⁹² while the Rules of the Road were completely revised in the 1972 COLREGS.⁹³

B. Load-Lines

Samuel Plimsoll was a conscientious businessman who deplored the savage neglect of sailors and the frauds practiced on the public and insurers whereby unseaworthy "coffin" ships were over-insured and then deliberately or carelessly sunk.⁹⁴ He served in Parliament 1868-1880 and was the leader in the Merchant Shipping Act of 1876. 95 The Act enlarged the powers of the Board of Trade to inspect and prohibit unsafe practices in the shipping industry, opposed by the ship owners and their associations and insurers, all supporters of the Tory party, but whose chief, Prime Minister Benjamin Disraeli backed reforms. 96 One reform was the requirement that the depth to which a vessel could be safely loaded marked on the vessel's sides, midship, now engraved, as painted lines could be and were fraudulently changed. These lines were called *Plimsoll Marks*. They indicate specific seasons and geographic waters where depths might vary.⁹⁷ The Plimsoll Marks of British legislation were incorporated in the unratified London Convention of 1914. The 1929 International Convention on Safety of Life at Sea, 98 removed them for separate treatment in the London Load Line Convention of July 5, 1930.⁹⁹ The 1930 Convention was replaced by

^{89. 1948} International Convention for the Safety of Life at Sea, 1948, 164 U.N.T.S 113.

^{90. 1960} International Convention for the Safety of Life at Sea, 1960, 536 U.N.T.S. 27.

^{91. 1974} International Convention for the Safety of Life at Sea, 1974, 1184 U.N.T.S. 2.

^{92.} Protocol Relating to the International Convention of I November 1974 for the Safety of Life at Sea, 1981, at 237, 1226 U.N.T.S. 277.

^{93.} Convention on the International Regulations for Preventing Collisions at Sea at 18, 1972, 1056 U.N.T.S. 16.

^{94.} See generally DAVID MASTERS, THE PLIMSOLL MARK (1983).

^{95.} An Act to Amend the Merchant Shipping Acts 1867, 39 & 40 Vict. c. 80 (Eng.).

^{96.} MASTERS, supra note 94.

^{97.} *Id.* Plimsoll Marks consist of short straight lines with a centered circle; the lines may be lower for tropical waters and higher for Arctic waters.

^{98. 1929, 136} L.N.T.S 81 at 94.

^{99. 135} L.N.T.S. 301.

the London International Convention on Load Lines of April 5, 1966. 100

V. FISHERIES

This Part deals with more than 27,000 species of fish already recognized by experts at the Food and Agriculture Organization ("FAO"), which has assumed larger responsibilities in the management and conservation of fisheries in six Regional Commissions. From the earliest times, coastal people protected fishing close to shore, often leading to violence and military action. Scientific research about the living and spawning conditions of different fish and mammal species did not begin until the 19th century.

Neighboring nations found ways to resolve disputes by arbitration, conciliation, mediation, or bilateral agreements. The New England Cod Industry, where the fish were taken on the high seas (The Grand Banks), but brought ashore to be dried and salted (curing) led to generations of disputes and was not finally settled until 1912, 130 years after the first bilateral negotiation on the subject (1783). ¹⁰¹ Coastal waters fisheries were usually conducted from small boats with small crews and nothing but nets and lines, but their catches could not satisfy increasing demand. Fishing centers, like Gloucester, Massachusetts soon followed the examples of the New Bedford Whale industry with large ships, large crews, and scientific instruments to fish the high seas, well beyond national territorial claims. ¹⁰²

^{100. 640} U.N.T.S. 133. See J. Kushner, The 1966 International Load Line Convention: Compatibility of Greater Carrying Capacity with Safety of Life and Property, 3 J. MAR. L. & COM. 375 (1977)

^{101.} See generally M. KURLANSKY, COD: A BIOGRAPHY OF THE FISH THAT CHANGED THE WORLD (1997). Curing ashore began when the New England colonies and Nova Scotia and New Brunswick were parts of the British Empire. In the Peace Treaty of 1783, John Adams made certain to protect the cod fish industry, whose replica hangs over the legislators in the Massachusetts Great and General Court. (The British delegation did not include Canadians). The treaty gave Americans the "right" to fish in "accustomed" areas and the "liberty" to cure fish on "unsettled shores"—undefined words that became controversial. See Art. 3, 8 Stat. 54.

The Hague Tribunal returned its compromise decision, essentially upholding the 1884 Bayard-Chamberlain Treaty rejected by the Senate. Both countries agreed with the Tribunal's decision, confirming the award on July 20, 1912. See T.S. 572, 37 Stat. 1734.

^{102.} See infra note 253. High seas fisheries would eventually develop factory ships. Initially, nets and lines were used to take the most expensive and desirable anadromous species: swordfish, salmon and tuna, but the introduction of extensive electronic equipment in factory ships could "vacuum" the ocean floor, taking indiscriminately anything that swam or crawled.

LOS III (1982) with the 200-mile EEZ, greatly reduced the amount of open ocean and governments became concerned with sustainability as well as conservation and management,

Multilateral Agreements began in 1882 in the North Sea where fishermen from Great Britain, Belgium, Netherlands, Norway, Denmark, and Germany were competing for high-priced species of fish that were soon exhausted. ¹⁰³ Agreement to prevent over-fishing was achieved only after national measures were proved to be inadequate. ¹⁰⁴ This is a rapidly developing subject beyond the scope of this Article, ¹⁰⁵ but the methodology can be best illustrated by the whale industry. The United States government has kept up its interest in the fishing industry through The Fish and Wild Life Service, established in 1906 in the Department of Interior. ¹⁰⁶

Whales

Pre-Revolutionary New England developed markets for whale products: sperm oil for lighting, whale bone for corsets and sticks and ambergris for food, and scents, obtained from whales in the nearby Atlantic. After 1820, people from New Bedford and Nantucket, Massachusetts flocked to serve in distant water whaling factory ships (an estimated ten thousand men in more than four hundred ships) on voyages that lasted several years until the ships' holds were bursting with barrels of whale oil; 107 the years 1820 to 1850 were the peak years before whale oil was replaced by cheaper petroleum products after

leading to the 1995 Agreement on Stradling and Highly Migratory Fish Stocks, 2167 U.N.T.S. 88. See generally H.N. Scheiber, Ocean Governance and the Marine Fisheries Crises: Two Decades of Innovation and Frustration, 20 VA. ENVT'L L.J. 119 (2001).

105. Treaty – protected species: Cod, Sockeye Salmon, Tropical Tuna, Halibut, Fur Seals, Atlantic Tuna, Antarctic Seals, Salmon (Pacific), Seals, Marine Mammals, Blue-fin Tuna, Pollock, Straddling and Highly Migratory Species and Sea Turtles. *See generally* W.T. BURKE, THE NEW INTERNATIONAL LAW OF FISHERIES (1994).

106. Fish and Wildlife Service of Dept. of Interior, 1906 T. Roosevelt organized it as part of his national conservation policies. A Fishery Service had been part of the Department of Commerce.

107. This essentially New England industry is described, with statistics in L.E. DAVIS, R.L. GALLMAN & K. GLEITER, IN PURSUIT OF LEVIATHAN: TECHNOLOGY, INSTITUTIONS, PRODUCTIVITY, AND PROFITS IN AMERICAN WHALING 1816-1906 (1997). The vast literature may be sampled in E.A. STACKPOLE, THE SEA HUNTERS: THE GREAT AGE OF WHALING (1953), N. PHILBRICK, IN THE HEART OF THE SEA: THE TRAGEDY OF THE WHALESHIP ESSEX (2000) E.J. DOLIN, LEVIANTHAN: THE HISTORY OF WHALING IN AMERICA (2007) and J.R. SPEARS, THE STORY OF THE NEW ENGLAND WHALERS (1922). Above and beyond all is the great novel, MOBY DICK (1851) by Herman Melville (1819-1891), written after seven years of his youth at sea.

^{103.} International Convention for Regulating the Police of the North Sea Fisheries, May 6, 1882,160 Consol. T.S. 219.

^{104.} Id

1859.¹⁰⁸ Thus, the United States' commercial interest in the whaling industry diminished and finally ceased just as other nations began to participate in distant waters whaling with new technologies to find and kill whales to the point of extinction.¹⁰⁹ The Scandinavians saw the need for statistics to demonstrate the dangers of extinction of various whale species, already being discussed by Canadian and American authorities. Norway established the International Bureau for Whaling Statistics at Oslo in 1930,¹¹⁰ a step towards the study of extinction, an action encouraged by the League of Nations that would be violently opposed by the modern whalers.¹¹¹

A timid agreement, dependent on flag-state enforcement was produced at Geneva in 1931. 112 The subject matter was the "baleen" whale, (not the more numerous whales with teeth) and it protected young whales and mother whales with young "calves." 113 Vessels for whaling required special licenses and must report a range of statistical information to the Bureau of Whaling Statistics. 114 No seasonal or geographic limits inhibited the whaling industry as aerial spotting and explosives added to the kill. Tightening the obligations of flag states, a London meeting prohibited kills of *Grey* or *Right* Whales outright and imposed geographic and seasonal limits on the hunt for baleen whales. Minimum size limits were added for some species. 115 A sort of enforcement was attempted in the provision for a flag state inspector to be stationed on each whale factory ship. The major whaling nations rejected the 1937 Protocol and extinction of species hovered while a 1939 conference featured reports from some inspectors. 116 The twoocean War of 1939-1945 interrupted the over-kill and a 1945 London Meeting (before the United Nations Organization became effective)

^{108.} The first drilling of a successful oil well occurred at Titusville, PA in 1859. While potential uses of petroleum were publicized by Prof. Benjamin Silliman of Yale; John D. Rockefeller (1839-1937) developed refining and transportation of petroleum by rail, and organized Standard Oil Co. of Ohio in 1870.

^{109.} Norway, Denmark, Canada, Russia (later the USSR), Japan, Korea, the Netherlands (Dutch East Indies, now Indonesia), Portugal, Italy, Argentina, Chile, and Peru).

^{110.} REIFF, *supra* note 34, at 178-82.

^{111.} *Id*

^{112.} Regulation of Whaling, Sept. 24, 1931, 155 L.N.T.S. 349, T.S. 880.

^{113.} Id.

^{114.} Id.

^{115.} T.S. 933.

^{116.} REIFF, supra note 34, at 181.

provided for a resumption of whaling under the League of Nations agreements. 117

The United Nations Charter entered into force on October 24, 1945 with the US membership approved by the Senate and concurring legislation approved by both House and Senate. A new treaty on whaling, The International Convention for the Regulations of Whaling, was one of the first projects before the Cold War unraveled the alliance that won the war. Phenew convention applied to all waters in which whaling is prosecuted and to the entire industry on land or sea. Enforcement is entrusted to a new International Whaling Commission with authority to make rules and regulations (The Schedule) a code, easily amended without a diplomatic conference and authorized recommendations to member states. Unlike other UN Commissions, each signatory is a Member of the Commission.

The vast new powers of Article V are "the conservation and utilization of whale resources." The Commission is specifically authorized to fix: (a) protected and unprotected species; (b) open and closed seasons; (c) open and closed waters, including "sanctuary areas"; (d) size limits for each species; (e) time, methods and intensity of whaling—including the maximum catch of whales to be taken in any one season; (f) types and specifications of gear and apparatus and appliances which may be used; and (g) methods of measurement. 124 All that being said, the same article provides that the regulations "shall be . . . necessary . . . and based on scientific findings." Quotas are not to be allocated by nation and the regulations "shall take into consideration the interest of the consumers and the whaling industry." There is a very broad exception for "scientific

^{117.} Id.

^{118.} U.N. Charter in force by its terms on October 24, 1945 to have headquarters in New York while the General Assembly met in London in January 1945 (and adopted British spelling of the English language).

^{119.} International Convention for the Regulation of Whaling, 161 U.N.T.S. 72. See also LOS III, supra note 13, art. 65, 120.

^{120.} See LOS III, supra note 13, Id., art. I.

^{121.} International Convention for the Regulation of Whaling, *supra* note 119.

^{122.} Id.

^{123.} Id., art. V.

^{124.} Id.

^{125.} Id.

^{126.} Id.

research."¹²⁷ The IWC bureaucracy is in London, but Annual Meetings move around the member states. IWC actions have produced opposition and non-membership especially the Moratorium on Commercial Whaling for the 1985-86 Season and later seasons.

VI. OCEANOGRAPHY

During the research and negotiation of the North Sea Fisheries, a new area of scientific study emerged, named anonymously Oceanography but associated with the British Challenge Expedition of 1872-1876. It was composed of elements from astronomy, navigation, meteorology, biology, chemistry, geology, statistics, and physics. Assembly of these subjects in a single institution happened in Europe with the work of Albert I, Prince of Monaco, a yachtsman and founder of the Oceanographic Museum of Monaco and the Oceanographic Institute of Paris. In the United States, 128 universities gradually expanded their work in the special components, while privately funded institutions immediately offered research, study, and publication at such places at the Scripps Institution of Oceanography and the Woods Hole Oceanographic Institution. 129 Governments have always funded important elements of oceanography through the naval service. 130 Examples include the Admiralty Hydrographic office in London and the United States Coast and Geodetic Survey followed by the Depot of Charts and Instruments that became the US Hydrographic Office in 1866, 131

VII. CONDUCT OF CIVILIZED WAR

Today *civilized warfare* is oxymoronic, but in the 19th century where there were no conflicts of Napoleonic proportions from 1815 to 1914, it seemed realistic, especially when female nurses began to appear on battlefields to care for wounded soldiers unable to continue the fight. 132 Codes of honor among gentlemen engaged in duels were

^{127.} Id., art. VIII (1). See Whaling in the Antarctic (Australia v. Japan), Judgment, 2014 I.C.J. Rep. 226.

^{128.} See generally J.W. Smith, To Master the Boundless Sea: The U.S. Navy, The Marine Environment and Cartography (2018).

^{129.} *Id*.

^{130.} Id.

^{131.} Id.

^{132.} Female nurses trained in sanitation were introduced into the British Army by Florence Nightingale (1820-1916) during the Crimean War in 1855. In the American Civil War Clara

clearly a precursor for rules for the conduct of warfare in the days when war was regarded as diplomacy by other means. European nations were alarmed by the 1871 creation of Bismarck's German Empire after successful wars with Bavaria, Denmark, Austria, and France. 133 Russia's Western borders ran more than 1,050 miles against three hostile empires (Germany, Austria-Hungary and the Ottomans 134 but Germany was clearly the most dangerous), separating Russia from its ally, France and potential ally, Great Britain. Accordingly, on August 24, 1898 Tsar Nicholas II invited all powers to a Conference at the Hague, Netherlands on May 18, 1899 to deal with issues of war and peace. The subject of the resulting conventions were: a permanent Court of Arbitration (at the Hague) but not mandatory; conduct of war on land, sea and air (balloons); and the prohibition of poison gas and dum-dum (exploding) bullets. 137

The inspiration for a new conference to deal with unsettled issues from 1899 and new issues revealed by actual hostilities came from President Theodore Roosevelt in a letter of October 21, 1904.¹³⁸

Barton (1821-1912) led nurses onto the battlefields of Virginia in 1864. The plight of wounded soldiers on the battlefields of the Italian Risorgimento moved a wealthy Swiss philanthropist, Henri Dunant (1828-1910), to persuade the Swiss federal government to assemble a Conference at Geneva in 1863 to discuss the problem which resulted in the founding of the International Red Cross in 1864. Its work was extended from the battlefield to natural disasters in 1884. Dunant received the first Nobel Peace Prize in 1901.

133. See generally D. Lieven, The End of Tsarist Russia: The March to World War I and Revolution (2015).

134. Id.

135. *Id*

136. Twenty-seven nations attended (20 European, 7 non-European including China, Japan, Siam, Mexico and the United States). The conference lasted ten weeks (to July 31, 1899). See J.B. Scott, The Hague Conferences of 1899 and 1907 (1909); J.H. Choate, The Two Hague Conferences (1913) and A.P. Higgins, The Hague Peace Conferences (1909).

137. List of 1899 Treaties (July 29, 1899)

I. Pacific Settlement of International Disputes

II. Laws and Customs of War on Land

III. Adaptation to Maritime Warfare of Principles of Geneva Convention of 1864

IV. Prohibiting Launching of Projectiles and Explosives from Balloons

Declaration I on the Launching of Projectiles and Explosives from Balloons

Declaration II on the Use of Projectiles the object of which is the Diffusion of Asphyxiating or Deleterious Gases

Declaration III on the Use of Bullets which Expand or Flatten Easily in the Human Body (dum-dum bullets).

138. Theodore Roosevelt born in New York City, A.B. Harvard (1880), N.Y. State Assembly (1882-84), U.S. Civil Service Commissioner (1889-95), Police Commissioner N.Y.C. (1895-97), Assistant Secretary of Navy (1897-8), Rough Rider (1898), Governor N.Y. (1899-

Roosevelt was awarded the Nobel Peace Prize in 1906 for his actions in the Peace Treaty of August 1905 to end the war between Russia and Japan. ¹³⁹ Even though he was at war with Japan and subjected to revolution at home, Tsar Nicholas II again invited all powers to a Conference at The Hague, Netherlands on June 15, 1907 to deal with issues of war and peace. Forty-five nations attended. The conference lasted eighteen weeks to October 18, 1907. Futile discussions on mandatory arbitration of disputes and limitation of arms clouded the successful prohibition of the use of force by creditor nations to collect from debtor nations (past examples involved: Mexico, Haiti, Dominican Republic, and Venezuela). ¹⁴⁰ Thirteen new conventions emerged, among which were naval warfare and neutral shipping; ¹⁴¹ one of the foundations of Woodrow Wilson's efforts to keep the United States out of the First World War.

UNCIVILIZED WAR

Sadly, nations did not observe the treaties, and some adherents deliberately disregarded their commitments. This led to the loss of twenty million lives in the First World War. The basic idea of multilateral efforts for peace, however, lived on in the League of Nations. A Second World War with the loss of sixty million lives followed, the reason for the United Nations in 1945.

War at Sea has not disappeared but the legal context is different under the United Nations Charter. 145 Member States agree not to use

^{1901),} Vice President (1901), President (1901-09). See EDMUND MORRIS, THEODORE REX 312-38 (2001).

^{139.} *Id*.

^{140.} List of 1907 Treaties (October 18, 1907): I. Pacific Settlement of International Disputes; II. Limitation of Employment of Force for Recovery of Contract Debts; III. Opening of Hostilities; IV. Laws and Customs of War on Land; V. Rights and Duties of Neutral Powers and Persons in Case of War on Land; VI. Status of Enemy Merchant Ships at the Outbreak of Hostilities; VII. Conversion of Merchant Ships into War Ships; VIII. Laying of Automatic Submarine Contact Mines; IX. Bombardment by Naval Forces in Time of War; X. Adaptation to Maritime War of the Principles of the Geneva Convention; XI. Restrictions with Regard to the Exercise of the Right of Capture in Naval War; XII. Rights and Duties of Neutral Powers in Naval War Creation of International Prize Court.

^{141.} Id.

^{142.} VICTOR DAVIS HANSON, THE SECOND WORLD WARS, 463-99 (2017).

^{143.} *Id*.

^{144.} *Id*.

^{145.} See generally LELAND GOODRICH, CHARTER OF THE UNITED NATIONS (3d ed. 1969); see also IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW (6th ed. 2005); W. Michael Reisman, The Constitutional Crisis in the United Nations, 87 Am. J. INT'L L. 83(1993); Oscar Schacter, The Rights of States to Use Armed Force, 82 MICH. L. REV. 1620,

"force" in international relations, ¹⁴⁶ the sole exception being self-defense against an "armed attack." ¹⁴⁷ The Security Council (subject to the veto of permanent members) may use war at sea to "maintain or restore international peace and security." ¹⁴⁸

Regional defensive alliances are not forbidden in the UN system. ¹⁴⁹ Accordingly, as the Cold War began in earnest with Soviet expansion into Czechoslovakia and the Berlin Airlift and communist party increases in France and Italy, the United States and Great Britain developed and extended a defensive alliance based on the North Atlantic Ocean, NATO, in 1949. ¹⁵⁰ Now in 2019, the North Atlantic Treaty Organization of forty-nine nations is still operational, despite political questions as to its future. ¹⁵¹

VIII. WELFARE OF SEAMEN

In 1850, The US Congress enacted the first provision for the welfare of merchant seamen (and naval enlisted men) by abolishing flogging in all US flag vessels. This was the result of a campaign begun in 1840 with the publication of *Two Years Before the Mast* by Richard Henry Dana, a Boston lawyer. ¹⁵² Further legislative protections came after the organization of seamen's unions under Andrew Furuseth who became President of the International Seamen's Union in 1905 and would be a great challenge to the International Labor Organization ("ILO"). ¹⁵³

The Versailles Treaty Negotiations intended to not only bring an end to the First World War, but actually attempted to reorganize Western European society. Woodrow Wilson's dream organization, the

^{1633 (1984).} In 1992 and 1993 the Security Council used its Chapter VII Powers to forbid shipping to ports of the former Yugoslavia.

^{146.} U.N. Charter art. 2, ¶ 4.

^{147.} U.N. Charter art. 51.

^{148.} U.N. Charter art. 42.

^{149.} See David McCullough, Truman 334-790 (1992); Herbert Feis, From Trust to Terror: The Onset of the Cold War (1970)

^{150.} Id.

^{151.} Id.

^{152.} Act of Sept. 28, 1850, ch. 80, 9 Stat. 515. (repealed 1949). Richard Henry Dana (1815-1882) recorded his experiences on a voyage (round the Horn) to California on the brig Pilgrim in 1834-36. *See* HAROLD D. LANGLEY, SOCIAL REFORM IN THE U.S. NAVY 1798-1862, 170-208 (1967).

^{153.} Andrew Furuseth (1854-1938) was a Norwegian immigrant and a ferocious organizer and champion of working people. *See generally* HYMAN WEINTRAUB, ANDREW FURUSETH: EMANCIPATOR OF THE SEAMEN (1959).

League of Nations was also part of the treaty. The League was finally established at Geneva without the United States, in 1920. 154 What had been intended as a subsidiary organization the International Labor Organization ("ILO") or Bureau International du Travail ("BIT") was created at Geneva before the League existed. 155 Its charter required tripartite delegations from member states: Employees (organized labor), employer associations, and government. 156 ILO treaties are referred to by number; the ILO has produced more than two hundred treaties that are or have been in force concerning all aspects of industrial operations using human labor. 157 Before the end of the Second World War, the ILO reconstituted itself in a 1944 Conference in Philadelphia to establish social justice as its goal, so that all human beings, "irrespective of race, creed or sex have the right to pursue both their material well-being and their spiritual development in conditions of freedom of dignity of economic security and equal opportunity." 158

ILO treaties in force that involve the maritime industry are:

- 1. Minimum Age of Seafarers (No. 7 1920) revised by No. 58 (1936) and No. 138 (1973)
- 2. Seaman's Articles of Employment (Agreement) (No. 22 1926)
- 3. Minimum Standards for Crew Accommodations (No. 92 1949) revised by No. 133 1970)
- 4. Shipowner Liability in case of Sickness, Injury or Death (No. 55/1936)
- 5. Minimum Standards for Merchant Ships (No. 147/1976)

^{154.} See generally Margaret McMillan, Paris 1919: Six Months That Changed the World (2002); see also Frank Walters, A History of the League of Nations (1967); Arthur Nussbaum, A Concise History of the Law of Nations (1958).

^{155.} Id.

^{156.} With regard to tripartite delegations, see ILO Rules for the Conference arts. 3 & 7, available at https://www.ilo.org/ilc/Rulesfortheconference/lang--en/index.htm [https://perma.cc/A5YW-LWLX]. See also S. OSIEKE, CONSTITUTIONAL LAW AND PRACTICE IN THE INTERNATIONAL LABOUR ORGANIZATION (1985); VIRGINIA A. LEARY, INTERNATIONAL LABOUR CONVENTIONS AND NATIONAL LAW: THE EFFECTIVENESS OF AUTOMATIC INCORPORATION OF TREATIES IN NATIONAL LEGAL SYSTEMS (1982).

^{157.} See generally DAVID A. MORSE, THE ORIGIN AND EVOLUTION OF THE ILO AND ITS ROLE IN THE WORLD COMMUNITY (1969). The current version of the ILO Treaty is from 1946. See International Labor Organization Constitution, Apr. 20, 1948, 15 U.N.T.S. 35 (see also 62 Stat. 3485).

^{158.} International Labor Organization [ILO] Constitution annex, *Declaration Concerning the Aims and Purposes of the ILO (Declaration of Philadelphia)*, available at https://www.ilo.org/dyn/normlex/en/f?p=1000:62:0::NO:62:P62_LIST_ENTRIE_ID:2453907: NO [https://perma.cc/A5RA-Z4KJ].

- 6. Seafarers, hours of work and the manning of ships (No. 180/1996)
- 7. Conditions of Work in the Fishing Industry (No. 188/2007)

A joint effort of ILO and IMCO produced the 1978 Convention on Standards of Training, Certification and Watchkeeping and the 1995 Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessels. ¹⁵⁹ The humanitarian services of the ILO were recognized in 1969 by the award of the Nobel Peace Prize. ¹⁶⁰

IX. OIL POLLUTION

Crude oil only began to be carried in bulk instead of barrels at the end of the 19th century, but serious regulation to prevent or correct oil pollution of harbors and coasts had to await the super tankers and the new industry of oil transport in the 1960s. ¹⁶¹ Nevertheless, the damage to harbors from oil-fed fires, the destructive fouling of small boats, the noxious smells, the destruction of sea birds, fish and shellfish, and the fouling of beaches were long recognized. ¹⁶² National port authorities had prohibited discharge of oil and other types of "refuse." ¹⁶³ In 1922, however, members of the US Congress, responding to public pressure, asked President Harding to convene an international conference to

^{159.} International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, July 7, 1978, 1405 U.N.T.S. 97; International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, *adopted* July 7, 1995 (its summary is available at

 $[\]label{lem:http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-on-Standards-of-Training,-Certification-and-Watchkeeping-for-Fishing-Vessel-Personnel-.aspx [https://perma.cc/GPE7-W7SR].$

^{160.} Evasion of ILO requirements was only a small part of the rationalization of flag of convenience shipping by United States and other European shipowners. In no particular order they feared Labor Unions, Coast Guard Inspections and Taxation. *See generally* BOLESLAW ADAM BOCZEK, FLAGS OF CONVENIENCE: AN INTERNATIONAL LEGAL STUDY (1962); RODNEY CARLISLE, SOVEREIGNTY FOR SALE: THE ORIGINS AND EVOLUTION OF THE PANAMANIAN AND LIBERIAN FLAGS OF CONVENIENCE (1981); U.N. Convention on Conditions for Registration of Ships, *opened for signatuer* Feb. 7, 1986, 26 I.L.M. 1229.

^{161.} See generally Joseph C. Sweeney, Oil Pollution of the Oceans, 27 FORDHAM L. REV. 155 (1968).

^{162.} Id.

^{163.} The Refuse Act of 1899, 33 U.S.C.A. § 407 (based on the Commerce clause was intended to prevent obstruction of navigable waters). *See* United States v. Standard Oil Company, 384 U.S. 224 (1966).

consider effective means to prevent pollution of navigable waters. ¹⁶⁴ Harding's Secretary of State, Charles E. Hughes, responded and the Conference on Oil Pollution met at Washington in June 1926. ¹⁶⁵ American direction was accepted because it was then the leading source of crude oil before discoveries in the Middle East and South America were revealed.

Twelve maritime nations attended, as well as invited experts from shipowner and maritime insurance associations, conservation societies, oil producers and fishery industry associations. The US delegation was well prepared, ¹⁶⁶ and they strongly insisted on the complete prohibition of oil discharges at sea. On the other hand, other nations were not ready for such a radical solution. ¹⁶⁷ Committees considered the problems associated with industry developments and wartime experiences:

Causes of Pollutions

Classification and Admeasurement of vessels

Territorial Zones

Enforcement Measures¹⁶⁸

There was a treaty drafted. 169 It provided that coastal nations could establish pollution prohibited zones of between 50 and 150 nautical miles from the coast and special fishery zones. 170 Sea-going vessels (except warships) carrying oil in bulk as cargo could not discharge oil or oily mixtures if the oil content exceeded .05 of one percent in the prohibited zone. 171 To encourage installation of machinery to separate oily water in ballast tanks, the spaces were to be exempted from tonnage dues. 172 No nation ratified the 1926 Convention but it was reviewed by the Communication and Transit Organization of the League of Nations which prepared a new oil

^{164.} Pollution of Navigable Waters, Pub. Res. No. 65, 42 Stat. 821-22. (1922). In 1924, Congress enacted the Prohibition of Oil Pollution in navigable waters (43 Stat. 604-06), cynically amended in 1966 to require gross negligence or willfulness, but repealed in 1968.

^{165.} See Sweeney, supra note 161.

^{166.} U.S. Interdepartmental Committee on Oil Pollution of Navigable Waters, Oil Pollution of Navigable Waters: Report to the Secretary of State by the Interdepartmental Committee (1926).

^{167.} See Sweeney, supra note 161.

^{168.} *Id*.

Preliminary Conference on Oil Pollution on Navigable Waters, June 8, 1926, T.S.
No. 1794.

^{170.} See Sweeney, supra note 161.

^{171.} Id.

^{172.} Id.

pollution convention in 1935;¹⁷³ but no diplomatic conference on the subject was ever held before the League ended in 1946.¹⁷⁴ The Second World War witnessed a great increase in the demand for oil and the tankers to carry it, almost all have now been scrapped except where "jumboized."¹⁷⁵

The United Nations Charter intended that there would be a series of subsidiary organizations, governed by their own treaties and financed by themselves with a loose connection to the United Nations Organization. Thus, the International Civil Aviation Organization ("ICAO"), Food and Agricultural Organization ("FAO"), World Health Organization ("WHO"), World Meteorological Organization ("WMO"), ILO, and World Trade Organization ("WTO") came into existence. The efforts to establish a maritime regulatory agency, however, were delayed for ten years by strong opposition from shipowning nations. The Great Britain had divided counsel at this time. The ship owning industry and its insurers were foremost, but environmental protection voices were also strong, although "environmental" terminology was not then in use.

Support for the 1935 League of Nations draft treaty on oil pollution continued but moved to the new United Nations Educational, Scientific, and Cultural Organization ("UNESCO") in the absence of a maritime organization. The Great Britain invited all member states to attend a conference in London in April 1954 to consider problems of oil pollution. The Oil as source of energy had become essential for

^{173.} Pollution of the Sea by Oil, League of Nations Doc. C.449M.235 1936-VIII (1935).

^{174.} See Sweeney, supra note 161.

^{175.} Jumbo-sized tankers have removed and preserved bow and stern sections and replaced the cargo carrying mid-section with new and greater capacity spaces. These were mostly single hull extensions effected before the requirement of double hulls for tankers.

^{176.} U.N. Charter art. 57.

^{177.} See REIFF, supra note 34, at 216-23. IMCO (1958-1982). The 1948 conference to establish a maritime regulatory body ran into trouble immediately on its name which had to disavow regulatory supervision and anti-trust or anti-competitive controls. Thus, Intergovernmental Maritime Consultative Organization. Postwar Ship owning nations held off ratification until 1958 and its pledge to protect the *conference* system of price fixing. A tonnage requirement accompanied the number of necessary ratifications (21) with seven nations of more than one million tons of ship tonnage. Convention on the Intergovernmental Maritime Consultative Organization, Mar. 6, 1948, 289 U.N.T.S. 48.

^{178.} See U.N. Secretary-General, Pollution of Sea Water, U.N. Doc. E/CN.2/100 (Jan. 9, 1951) & U.N. Doc. E/CN.2/134. See also NAGENDRA SINGH, INTERNATIONAL CONVENTIONS OF MERCHANT SHIPPING, 1080-1157 (1963).

^{179.} Thirty-two members states attended the Convention for the Prevention of Pollution of the Seas by Oil, May 12, 1954, 327 U.N.T.S. 3. Amended by two protocols: 1962 (200

personal automobiles and heating as well as industrial transport, manufacturing and war thus the oil transporting industry had very strong support. 180

The resulting international convention relied heavily on the prohibited zones that involved both territorial and non-territorial waters. The hot issue of the breadth or limit of coastal state sovereignty (3-6-9-12 or 200 nautical miles seaward from the low water mark) was then before the International Law Commission in its preparatory work for the 1958 Geneva Conventions, thus the pollution conference did not attempt to resolve the legal status of the prohibited zones. The drafters counted on voluntary observation of the zones which has been the practice of most mariners. Despite its non-enforcement, there are many reservations and understandings attached by governments. ¹⁸¹

The heart of this convention was the problem of the deliberate cleaning of the cargo tanks of oil tankers after discharge of oil by using sea water to ballast the vessel for safety. Although enforcement had to depend on the flag states, attempts to permit inspection of the vessels by non-flag state officials even in port were rejected, although the issue would return. Proof of pollution depended on the *Oil Record Book* and computations therefrom. This convention did not deal with civil liabilities to victims of pollution; it is essentially quasi-penal, dependent on flag state legislation. ¹⁸²

Civil liabilities, possibly accompanied by criminal prosecution, were the consequences of large oil spills in populated areas with a tourist or aqua culture industry: Torrey Canyon, Amoco-Cadiz, Exxon-Valdez, and the Erica and Prestige among the more notorious. 183 While

U.N.T.S. 332) and 1969 (1140 U.N.T.S. 340). See Rear Admiral H.C. Shepard & John W. Mann, Reducing the Menace of Oil Pollution, 31 DEPT. OF ST. BULL. 311, 311-14 (1954); Sweeney, supra note 161.

Until 1997 there were a series of private agreements to provide compensation for oil spill damage not otherwise available, the 1969 TOVALOP (Tankers Owner's Voluntary Agreement on Liability for Oil Pollution) and the 1971 CRISTAL (Contract Regarding Interim Supplement to Tanker Liability for Oil Pollution). Now discontinued, they were funded on the basis of quantities of oil carried.

^{180.} See Sweeney, supra note 161.

^{181.} See SINGH, supra note 178.

^{182.} Id.

^{183.} International Convention on the Establishment of an International Fund for Oil Pollution Damage, Dec. 18, 1971, 1110 U.N.T.S. 57; there have been three amendments by protocols in 1976 (1862 U.N.T.S. 509), 1992 (1953 U.N.T.S. 330) and 2003 (IMO Doc. LEG/CONF 14/20). Use of the Oil Record Book in prosecution of unlawful pollution can be illustrated by United States v. Caribbean Cruise Lines, Ltd. 11 Fed. Supp. 2d 1358 (S.D. Fla. 1998).

the purpose of the international efforts has been to impose liability on ship-owners and their insurers, there has been a simultaneous effort to make consumers pay through the "Fund" Conventions. 184

IMCO was responsible for the 1969 Civil Liability Convention ("CLC"). ¹⁸⁵ The CLC is applicable to governmental clean-up and all other damages in contracting state territory and its Exclusive Economic Zone of the 1982 LOS III ("EEZ"), but there are defenses and the amount of liability is limited. ¹⁸⁶ The amount of limited liability was always the central issue because of the availability of insurance cover, but the treaty amounts never came close to cover the actual expenditures by governments to clean up a major oil spills. ¹⁸⁷

IMCO was reorganized into a more powerful agency in 1982 with more responsibilities.¹⁸⁸ There are now regimes dealing with polluting substances other than oil, demanded by public opinion: The 1973 International Convention for the Prevention of Pollution from Ships ("MARPOL 73/78"), was amended before it went into force in 1983.¹⁸⁹ A 1984 IMO Diplomatic Conference failed to produce a convention dealing with hazardous and noxious substances;¹⁹⁰ a second effort in 1996 did produce a convention.¹⁹¹ The subject of civil liability for

184. Id.

^{185.} International Convention on Civil Liability for Oil Pollution Damages, Nov. 29, 1969, 973 U.N.T.S. 3; amended by Protocols: 1976 (1225 U.N.T.S. 356) and 1992 (1956 U.N.T.S. 254).

^{186.} Acts of war, acts of God, intentional acts of third parties, intentional or negligent acts of claimants and governmental negligence in maintaining aids to navigation.

^{187.} Originally 2000 Poincaré francs in gold per ton of the vessel's tonnage to a maximum of 210 million Poincaré francs. Protocols of 1976, 1984 and 1992 have increased these amounts in Special Drawing Rights (SDR).

The United States never ratified CLC because of these low amounts. OPA '90, specifically provides that state pollution laws are *not* preempted by federal legislation, 33 U.S.C. § 2718 (2018); *see* Ray v. Atlantic Richfield Co., 435 U.S. 151 (1978) and United States v. Locke, 529 U.S. 89 (2000).

^{188.} See id.

^{189.} International Convention for the Prevention of Pollution from Ships, Nov. 2, 1973, 1340 U.N.T.S. 184 *amended at* Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973, Feb. 17, 1978, 1340 U.N.T.S. 61. The current international regulations are reviewed in NICHOLAS J. HEALY & JOSEPH C. SWEENEY, THE LAW OF MARINE COLLISION, 270-302 (1998).

^{190.} IMO finally achieved the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, May 3, 1996, 35 I.L.M. 1415.

^{191.} International Convention on Civil Liability for Bunker Oil Pollution Damage, *adopted* Mar. 23, 2001 (its summary available at http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-

damage done by bunkers (as opposed to cargo) was achieved in 2001. 192 Subsidiary to the civil and penal liabilities was the use of military force against polluting vessels on the high seas, thus the 1969 Convention Relating to Intervention on the High Seas in cases of Oil Pollution Casualties, amended in 1973. 193 Mandatory provisions to prevent oil spills were accomplished through the 1990 Convention on Oil Pollution Preparedness, Response, and Cooperation. 194 LOS III Part XII deals with the Maritime Environment in general terms to be supplemented by specifics duties.

X. CUSTOMARY LAW OF THE SEA AND PRELIMINARY CODIFICATION

In the absence of an international organization or multilateral treaties, international lawyers debated the works of jurists who wrote chiefly about customary practices of nations. ¹⁹⁵ By the end of the 19th century, scholars could say that international law was made from (1) treaties or (2) customary international law. Accordingly, "Opinio Juris Sive Neccesitatis" was added to persistent state practice to make customary international law. ¹⁹⁶ The new element requires the state practice must have been observed by a considerable number of nations over a considerable period of time because states believed compliance was necessary. ¹⁹⁷ The exception was *jus cogens* a fundamental

Convention-on-Civil-Liability-for-Bunker-Oil-Pollution-Damage-(BUNKER).aspx [https://perma.cc/GKS3-DUM7].

193. International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, Nov. 29, 1969, 970 U.N.T.S. 211, *reprinted in* 1313 U.N.T.S. 3.

194. International Convention on Oil Pollution Preparedness, Response and Operation, Nov. 30, 1990, 1891 U.N.T.S. 51.

195. At the end of the 18th and well into the 19th Century Emmerich de Vattel (1714-1767) was the principal authority. Born and educated a Swiss Protestant, he served as Foreign Minister for the Catholic king of Saxony: Not a lawyer but a diplomat, his 1758 work, *Le Droit des Gens ou Principes de la loi naturelle appliqués a la conduite et affairs des nations ou des souverains* [The Law of Nations] was the usual authority in Europe and America. Other jurists were: Pufendorf, Babeyrac and Wolff.

196. See generally Anthony A. D'Amato, The Concept of Custom in International Law, 63 Am. J. INT'L L. 211 (1969); Ryan M. Scoville, Finding Customary International Law, 101 IOWA L. REV. 1893 (2016)

197. The International Court of Justice has examined the process in Fisheries (U.K. v. Nor.), Judgment, 1951 I.C.J. Rep. 116 (Dec. 1951); *North Sea Continental Shelf* (Fed. Republic of Ger. v. Den. & Neth.), Judgment, 1969 I.C.J. Rep. 3 (Feb. 1969), Asylum (Colom. v. Peru), Judgment, 1950 I.C.J. Rep. 266 (Nov. 1950) & Pulp Mills on the River Uruguay (Arg. v. Uru.), Judgment, 2010 I.C.J. Rep. 199 (Apr. 2010). *See also* Jonathan I. Charney, *International*

^{192.} *Id*.

principle of civilized society that may not be altered by treaty or practice. ¹⁹⁸ In this manner the three mile limit and flag state doctrine came to be accepted as law, although not applicable to "persistent objectors." 199 The League of Nations, eventually composed of sixtythree nations, (except the United States which never joined and the Soviet Union which was expelled) became involved with many maritime matters as a result of the inclusion in the creating Treaty of Versailles of provision for a Communications and Transit Organization within the League of Nations. ²⁰⁰

Communications and Transit

The Communications and Transit Organization ("C&TO") was created at a Conference in Barcelona, Spain in April 1921.²⁰¹ C&TO then arranged a conference to frame the Convention on the Regime of Navigable Waterways of International Concern on April 26, 1921, dealing essentially with European rivers and canals. 202 Access to the sea for land-locked nations was also considered in the Convention and Statute on Freedom of Transit.²⁰³ Access to ports of all nations by vessels of all nations was the subject at Genoa, Italy in 1923, producing the Convention on the International Regime of Maritime Ports. ²⁰⁴The highly controversial topic of Uniform Buoys for harbors and coasts—

Agreements and the Development of Customary International Law, 61 WASH. L. Rev. 971 (1986); Louis B. Sohn, The Law of the Sea: Customary International Law Developments, 34 AM. UNIV. L. REV. 271 (1985), Jonathan I. Charney, The Persistent Objection Rule and the Development of Customary International Law, 56 BRIT. Y.B. INT'L LAW 1 (1985) [Persistent Objection Rule].

198. Vienna Convention on the Law of Treaties arts. 53 & 64, Jan. 27, 1980, 1155 U.N.T.S. 331. The Vienna Convention is prospective only, not retroactive.

A different issue underlies the principles of Erga Omnes dealing with fundamental issues concerning all nations rather than just contesting parties. See Barcelona Traction (Belg.v. Spain), Judgment, 1970 I.C.J. 3 (Feb. 5, 1970).

199. See Persistent Objection Rule, supra note 197.

200. Treaty of Versailles art. 23e, June 28, 1919, 1 L.N.T.S. 312. Germany, Italy, and Japan resigned. (The United Nations has 193 member states in 2018.

201. Protocol to the Convention on the Regime of Navigable Waterways of International Concern, Apr. 20, 1921, 7 L.N.T.S. 65.

202. Id.

203. See Convention on the International Regime of Maritime Ports, Sept. 12, 1923, 142 L.N.T.S. 342. The League's concern was with obstacles to trade as a source of international friction leading to war. This could be set aside by the Security Council of the United Nations decision to close ports in the 1990-91 Kuwait-Iraq War. See also Ashely Roach, Container and Port Security: A Bilateral Perspective, 18 INT'L J. MARINE & COASTAL L. 541 (2003) (dealing with the exclusion of containers from US ports for security reasons).

204. Id.

especially the colors and shapes—was put into treaty form at Geneva in 1936, the International Convention on a Uniform System of Maritime Buoyage.²⁰⁵ C&TO also attempted to deal with oil pollution and tonnage measurement (for the purpose of assessing canal tolls and port charges).

B. UNIDROIT: Private Commercial Law

An Organ of the League to deal with private commercial law problems, not addressed by the non-governmental organizations ("NGOs"): International Law Association ("ILA"), Comite Maritime International ("CMI") and International Chamber of Commerce ("ICC"), was established at Rome in 1920 to consist of national experts appointed by member states.²⁰⁶ The International Institute for the Unification of Private Law ("UNIDROIT") accepted several projects on transportation.²⁰⁷

C. Codification of Public International Law

In 1927, The Assembly of the League assigned the issue of the public law of oceans to an international conference to be held in 1936 in The Hague, Netherlands, the site of the Permanent Court of International Justice. The long lead time encouraged deep research and official questionnaires to governments.²⁰⁸ An example of the type of research was that conducted by Professor Manley O. Hudson and his fellow experts at Harvard Law School.²⁰⁹ Although not a member of the League, the United States participated fully in the conference with forty-six other member states of the League.²¹⁰ Although no

^{205.} Buoys to indicate safe approaches to harbors differed greatly as to size, shape and color; some uniformity was maintained in the United States by the Coast Guard and in England by the Elder Brethren of Trinity House

^{206.} UNDROIT survived the end of the League when it was adopted by Italy in 1946.

^{207.} UNDROIT has pursued transportation projects in the 1955 Convention on the Carriage of Goods by Road. Possible application to maritime transport are the 1988 Ottawa Convention on International Financial Leasing and International Factoring and the 2001 Cape Town Convention on International Interests in Mobile Equipment. Lengthy projects have involved Agency, Carriage of Goods by Internal Waters and International Commercial Contracts.

^{208.} See Yuen-Li Liang, Documents on the Development and Codification of International Law, 41 AM. J. INT'L L. 4 SUPP. 29-147 (1947). The Conference at the Hague met from March 13 to April 12, 1936.

^{209.} Id.

^{210.} Id.

international convention was developed in the month of meetings, the documentation became an extremely valuable research tool for work in Law of the Sea, especially the Draft Convention on Territorial Waters of the International Law Commission ("ILC").²¹¹

D. International Law Commission

In 1947 the General Assembly created the ILC, acting under the authority of Article 13 of the UN Charter, to be composed of fifteen recognized legal experts, to be elected by the General Assembly. ²¹² The ILC was intended to be the drafters of all the multi-lateral treaties for the Organization and its specialized agencies, but it was soon overwhelmed by the number of treaty projects. ²¹³ The General Assembly was intended to be a policy maker, not a legislature. ²¹⁴ International law, whether public or private was intended to be made by the multi-lateral treaty. ²¹⁵ Accordingly, the ILC needed to manage its resources very carefully and select topics that could be turned into ratifiable treaties. Because of the extensive documentation from the 1936 codification conference, the Law of the Sea was chosen for development by the ILC in 1949. ²¹⁶

During the next seven years, the ILC reviewed the developments, the historic terminology, and customary international law applicable to the territorial sea, the continental shelf, contiguous zone, high seas, fisheries, cables, and piracy. ²¹⁷ The final report of 1956 provided a road map for the Conference, later dubbed LOS I, to be held in March 1958. ²¹⁸ Issues concerning fisheries were certain to be difficult and confrontational, thus a special conference of the FAO to consider the *scientific and technical* questions concerning fisheries while putting aside the legal issues to be dealt with by the General Assembly was needed. That conference including all the world's fisheries experts met

^{211.} Id.

^{212.} See U.N. General Assembly, Report of the Comm. on the Progressive Dev. of Int'l Law and its Codification, Report of the Sixth Comm., UN Doc. A/504 (Nov. 20, 1947).

^{213.} See U.N. Charter art. 13.

^{214.} Id.

^{215.} Id.

^{216.} See U.N. General Assembly, supra note 212.

^{217.} U.N. General Assembly, Report of Int'l Law Comm., GAOR A/925 Supp. No. 10 (June 24, 1949); Yuen-Li Liang, *The First Session of the International Law Commission*, 44 Am. J. Int'l L. 123 (1952). For a source on General Assembly Resolutions, see Blaine Sloan, United Nations General Assembly Resolutions in a Changing World (1981).

^{218.} Id.

at Rome in April 1955.²¹⁹ The 1956 ILC Report was presented to the General Assembly and favorably reviewed by the Sixth Committee in December 1956, and the General Assembly called for the Diplomatic Conference in 1958.²²⁰

E. LOS I (1958)

The Conference assembled at the Palais des Nations (of the League of Nations) in Geneva, Switzerland on February 24, 1958. Eighty-seven member states attended—the UN membership had not yet increased dramatically by the 1960s decolonization of Africa and Asia. The meetings lasted nine weeks and produced four international conventions:

- 1. The Territorial Sea and Contiguous Zone²²¹
- 2. The High Seas²²²
- Fishing and Conservation of the Living Resources of the High Seas²²³
- 4. The Continental Shelf²²⁴

The United Nations had not yet adopted decisions by consensus and these were adopted by vote. ²²⁵ Ratifications were achieved at a

But there is a legal reason. As a result of Article 19 of the U.N. Charter, member states lose their votes in the General Assembly (but not the Security Council) when they became delinquent in payment of assessed contributions. In the 1956 Suez Crisis, Security Council enforcement action was vetoed by France and the United Kingdom but under its Uniting for Peace Resolution (G.A. Res. 337A, UNGAOR 5th Sess. Supp. No. 20 (Nov. 3, 1950); the General Assembly created an emergency peace keeping force from non-aligned militaries (UNEF I). Certain Expenses of the United Nations, Advisory Opinion, 1962 ICJ Rep. 151 (July 20, 1962) approved

^{219.} U.N. General Assembly, Report of Int'l Tech. Conference on the Conservation of the Living Res. of the Sea, A/CONF.10/6 (July 1955).

^{220.} G.A. Res. 1105 (XI) (Feb. 21, 1957).

^{221.} Convention on the Territorial Sea and Contiguous Zone, Apr. 29, 1958, 15 U.S.T. 1606, 516 U.N.T.S. 205.

^{222.} Convention on the High Seas, Apr. 29, 1958, 13 U.S.T. 2312, 450 U.N.T.S. 82.

^{223.} U.N. General Assembly, Diplomatic Conference, Convention on Fishing and Conservation of the Living Resources of the High Seas, 559 U.N.T.S. 285 (Apr. 29, 1958).

^{224.} U.N. General Assembly, Diplomatic Conference, Convention on the Continental Shelf, 499 U.N.T.S. 311 (Apr. 29, 1958).

^{225.} The United Nations made its decisions by votes for its first twenty years, demonstrated by the vast electronic scoreboard (yes-no-abstain) that formerly hung behind the rostrum in the General Assembly Hall. Political issues once conformed to the policies of the United States and its NATO allies, however the dramatic increases in membership caused by decolonization created concerns among developed nations as the non-aligned Group of 77 asserted its voting power. Voting disappeared in favor of *consensus* about 1965 for political reasons.

slow pace, but by the time LOS III was completed in 1982, all four were in force.²²⁶ That fact, however, could not disguise the disagreements and silences that lingered. A brief review of the provisions on a geographical basis follows.

The territorial sea was to be measured from a base-line and would include bays, other than historic bays whose mouth was less than twenty-four miles in width.²²⁷ Special rules of innocent passage applied to international straits within these waters.²²⁸ However, no agreement could be achieved on the old three-mile limit. Four, six, nine, twelve, and two hundred miles were proposed. A contiguous zone measured out to twelve miles to deal with "customs, fiscal, immigration or sanitary regulations" was approved.²²⁹ The continental shelf is a submarine area adjacent to the coast to a depth of two hundred meters or beyond to where the depth of the super adjacent waters admits of the exploitation of the natural resources. Coastal states had exclusive rights to explore and exploit the shelf. Almost every word would create a conflict.²³⁰ The High Seas continued to be a vast no-man's land in which four freedoms for all member states were recognized: freedom of navigation, freedom of over-flight, freedom to fish, and freedom to lay submarine pipes and cables.²³¹ Other uses were not recognized.²³²

The United States was in an unusual position as far as the developing states were concerned: urging a three-mile width of the territorial sea and at the same time protecting its use of *flag of convenience* shipping. On the latter issue, the magic words were *genuine link* between the flag state and the ships that fly its flag. The

the UNEF expenses as constitutional but France and the Soviet Union indicated their continuing refusal to pay for UNEF (and UNOC—the 1960 Congo Force). Instead of invoking Article 19, voting ceased in the General Assembly and consensus was gradually adopted in all U.N. decision making parts. Assembling a package of approvals with a wide-spread group of states can take a lengthy time to reach consensus.

^{226.} Each treaty required twenty-two ratifications to enter into force, but governments did not ratify the treaties as a package, hence the wide difference in citations in U.N.T.S. See generally Arthur H. Dean, The Law of the Sea, 38 DEPT. ST. BULL. 574 & 38 DEPT. ST. BULL. 1116. William T. Burke & Myres S. McDougal, Crisis in the Law of the Sea: Community Perspectives Versus National Egoism, 67 YALE L.J. 539 (1953); Philip C. Jessup, The United Nations Conference on the Law of the Sea, 50 COLUM. L. REV. 234 (1959).

^{227.} See id; U.N. General Assembly, supra note 212.

^{228.} Id.

^{229.} Id.

^{230.} Convention on Continental Shelf art. 1, Apr. 29, 1958, 15 U.S.T. 471, 499 U.N.T.S. 311.

^{231.} See Convention on the High Seas, supra note 222.

^{232.} *Id*.

principal targets were the fleets of Panama and Liberia (also the US United Fruit Company's Honduran flag vessels). This issue remained vital for many years as the problem of open registries of vessels.²³³

Realizing that many provisions of the four treaties remained controversial, an optional protocol for compulsory settlement of disputes was provided.²³⁴ Nations followed a UN practice to forbid reservations by ratifying or adhering states for the High Seas and Territorial Sea Conventions but not the others.²³⁵

F. LOS II (1960)

The only appropriate descriptive word for this conference is *embarrassment*.²³⁶ When the General Assembly could not resolve the issue of breadth of the territorial sea, a new diplomatic conference was called for in 1960 to deal with that issue.²³⁷ When the General Assembly calls (and pays for) a formal conference in all official languages, it is customary for the Secretariat to prepare rules for the Conference, one of which is the requirement that two-third of the attending members must approve the Final Act.²³⁸ This was the undoing of the 1960 Conference. A joint United States-Canada Compromise provided a six-mile territorial sea with a further six mile fishing zone. In a final vote the compromise had fifty-four favorable votes opposed by twenty-eight negatives. It was one vote shy of adoption. No convention emerged.²³⁹

^{233.} See BOCZEK, supra note 160.

^{234.} Optional Protocol of Signature concerning the Compulsory Settlement of Disputes arising from the Law of the Sea Conventions, Apr. 29, 1958, 450 U.N.T.S. 169.

^{235.} Reservations (and Understandings) were very common in multilateral treaties that were approved by vote, but with the use of consensus where many delicate compromises had to be concealed, no reservations became the rule to avoid the appearance of false consensus.

^{236.} See generally Arthur H. Dean, The Second Geneva Conference on the Law of the Sea: The Fight for Freedom of the Seas, 54 AM. J. INT'L L. 751 (1960).

^{237.} See id.

^{238.} See id.

^{239.} See id. A persistent legend is that a developing country in Latin America offered to change its negative vote to affirmative in exchange for a surplus aircraft carrier.

XI. REGULATION OF MARITIME TRANSPORT OF GOODS

A. The Harter Act

Having dealt with collision prevention and safety of life for all ocean-going vessels by the end of the 19th century, attention turned to the safe carriage of cargoes, both packaged or in bulk. It was the US Congress that first legislated in favor of cargo owners by defining the shipowners' duty to provide a seaworthy vessel and care for the cargo while in their custody in the 1893 Harter Act, a product of the same agrarian radicals and anti-monopolists that had produced the Sherman Anti-Trust Act of 1890.²⁴⁰ The Harter Act had a world-wide effect as it applied to imports as well as exports.²⁴¹ British colonies dependent on exports followed the American example as Australia, New Zealand, and Canada enacted similar statutes.²⁴²

B. Hague Rules and COGSA

At the conclusion of the First World War, attempts were made to exchange these cargo-owner protections for laws in favor of shipowners and their insurers. The Hague Rules of 1921 for voluntary incorporation into shipping documents sought to accomplish this. ²⁴³ CMI accomplished the transfer of the Hague Rules into mandatory treaty form (in French) at Brussels in 1924. ²⁴⁴ The treaty entered into

^{240.} Act of Feb. 13, 1893, ch. 105 §§ 81-196, 27 Stat. 445. Compromises with opponents account for the poorly drafted wording, but the vote was not recorded in a divided Congress (Senate was Republican 47 to 39, but the House was Democratic, 231 to 88) and President Harrison signed the bill on the same day. *See generally* Joseph C. Sweeney, *Happy Birthday, Harter: A Reappraisal of the Harter Act on its 100th Anniversary*, 24 J. MAR. L. & COM. 1 (1993); J. HUTCHINS, THE AMERICAN MARITIME INDUSTRIES AND PUBLIC POLICY 1789-1914 (1941); W. TETLEY, MARINE CARGO CLAIMS (3d ed. 1988).

^{241.} See id.

^{242.} See id.

^{243.} See Joseph C. Sweeney, The Prism of COGSA, 30 J. MAR. L. & COM., 543, 543-93 (1999), Michael F. Sturley, The History of COGSA and the Hague Rules, 22 J. MAR. L. & COM. 1 (1991); Michael F. Sturley, The History of the Hague Rules and United States COGSA, 1991 IL DIRITTO MARITTIMO 1. See also Joseph C. Sweeney, Crossing the Himalayas: Exculpatory Clauses in Global Transport, 36 J. MAR. L. & COM. 155 (2005); Joseph C. Sweeney, UNICITRAL and the Hamburg Rules: The Risk Allocation Problem in Maritime Transport of Goods, 22 J. MAR. L. & COM., 511 (1991) [hereinafter Sweeney, UNCITRAL]. For seventy years the citation for COGSA was 46 U.S. Code §§ 1301-15. In 2006 Congress recodified Title 46, omitting COGSA as numbered provisions, but relegating COGSA as a note to Section 30701 (the Harter Act) in which the reference is to the sections of COGSA by numbers 1 to 15.

^{244.} See id.

force for the British Empire in 1931.²⁴⁵ The US Congress revised and amended the treaty, enacting it as the Carriage of Goods by Sea Act ("COGSA") in 1936 *before* the Senate gave advice and consent to the treaty.²⁴⁶ Ocean transport of goods quickly became the most important element in world trade even while subject to the NGOs discussed below. It was the effects of the Second World War that moved non-bulk shipping into containers, diverted the carriage of passengers from sea to air, and created the United Nations organizations that now carry the burden of regulation. Before the existence of the League of Nations or the United Nations, several NGOs were created by lawyers to bring some order into the conflicting legal systems of Europe and remedy the uncertainties of customary international law: ILA, CMI, and ICC.

C. The International Law Association

The International Law Association ("ILA") was founded in Brussels in October 1873.²⁴⁷ The founders were a group of lawyers led by David Dudley Field of New York.²⁴⁸ Their goal was to codify international law to avoid situations that might lead to war, such as the American Civil War, and the Franco-Prussian War.²⁴⁹ Field, brother of Steven J. Field of the US Supreme Court and Cyrus W. Field of the Atlantic Cable, had codified New York's Civil Procedure. Possible codification of international law had been a project of Jeremy Bentham, English philosopher and economist and the idea was familiar and acceptable.²⁵⁰

The first project of ILA was maritime law: Rules of General Average, a relic of the general maritime law, but interpreted differently in London (by adjusters) and in Paris (by dispacheurs). It is a primitive form of equitable risk sharing among participants in a maritime adventure that predated the corporate ownership and modern insurances. ILA's successful form of agreement was the York-Antwerp Rules of General Average, amended and modified many times but

^{245.} See id.

^{246.} See id.

^{247.} See generally Richard Lowndes & George Rudolf, The Law of General Average and the York-Antwerp Rules (1975); Leslie J. Buglass, Marine Insurance and General Average in the United States: An Average Adjuster's Viewpoint (1981).

^{248.} See id.

^{249.} See id.

^{250.} Id.

always incorporated by reference in maritime commercial documents: charter parties, bills of lading and contracts of pilotage, salvage, towage, etc.²⁵¹ General Average disputes seldom get into court today but the 19th century US Supreme Court established principles: imminent peril common to all the interests; voluntary sacrifice to benefit all interests and a successful conclusion.²⁵²

D. Comité Maritime International

Comité Maritime International ("CMI") was founded in 1897 by a group of English, Belgian, and Italian maritime lawyers unsatisfied with the slow progress of the ILA in dealing with maritime problems.²⁵³ Its methodology was to assign topics to subcommittees of experts that would survey opinions of the maritime world through questionnaires on problems of a commercial nature.²⁵⁴ The subcommittee then drafted a report for a Plenary Conference. If the subject matter could be resolved only by uniform law, without national variations, a multilateral treaty would be drafted and presented to the Belgian government with a request that a diplomatic conference be called.²⁵⁵ Thirteen such conferences were held between 1910 and 1979. National Associations of Maritime lawyers became members of CMI and were responsible for persuading their governments to send an official delegation to the Conference. In the 1970's, as maritime commercial topics were placed on the agendas of IMO, UNCTAD, and UNCITRAL, CMI ceased its diplomatic activities and assumed a new role as expert adviser.²⁵⁶

Sufficient ratifications to bring the resulting CMI treaties into force had been slow and contentious because of the nature of CMI member associations. Maritime Labor, maritime safety experts, shippers, consumers and consignees have not been part of the CMI expertise that is usually made up of ship owner associations and

^{251.} See id.

^{252.} See Barnard v. Adams, 51 U.S. (10 How.) 270 (1850); The Star of Hope, 76 U.S. (9 Wall) 203 (1870); Ralli v. Troop 157 U.S. 386 (1895); The J.G. Donaldson, 167 U.S. 599 (1897).

^{253.} See generally Francesco Berlingieri, The Work of the Comite Maritime International: Past, Present and Future, 57 Tul. L. Rev. 1260 (1983).

^{254.} See id.

^{255.} See id.

^{256.} See Berlingieri, supra note 253.

maritime insurers (both hull and protection and indemnity ("P & I")).²⁵⁷ Thus, when the political issue of ratification or adhesion by governments occurred, the proposed treaty might be indefinitely postponed or even defeated.²⁵⁸ Nevertheless, a formidable list of ratified treaties still in force exists and CMI is usually the first source for expertise when U.N. organizations take up maritime related subjects.²⁵⁹

E. The International Chamber of Commerce

The International Chamber of Commerce ("ICC") was first organized in Paris in 1919. It does speak for shippers and consignees as well as shipowners. Most importantly it provides non-treaty definitions in the Uniform Customs and Practice ("UCP") and Incoterms. Its principal work is arbitration of international business disputes, the procedures of which are supervised by its court. ²⁶⁰

257. See Difficult Quest for a Uniform Maritime Law: Failure of the Brussels Conventions to Achieve International Agreement on Collision Liability, Liens and Mortgage, 64 YALE L.J. 878 (1955).

258. Id.

259. CMI Treaties that entered into force are the following:

1910 Collision Convention (1913) (several liability)

1910 Salvage Convention (1913) replaced in 1988

1924 Hague Rules, The Bills of Lading Convention (1931) with Protocols of 1968

(Visby Amendments (1977) and 1979 SDR Amendment (1984)

1924 Limitation of Shipowner Liability (1931), replaced in 1957 (1968) and 1979 Protocol (1984)

1926 Convention on Maritime Liens and Mortgage (1937), replaced by 1967 Convention, not in force

1926 Convention on Immunity of State-Owned ships (1937)

1952 Civil Jurisdiction in Matters of Collision (1955)

1952 Penal Jurisdiction in Matters of Collision (1955)

1952 Arrest of Seagoing Ships (1956)

The following conventions have not entered into force:

1957 Stowaways

1962 Nuclear Ships Operators

1967 Vessels under construction

1967 Maritime Liens and Mortgages

1974 Athens Convention on Limitation of Liability for Passengers

and their Luggage, replacing 1961 and 1967 Conventions.

260. ICC is composed of national organizations in more than 135 nations, and national committees (to select arbitrators). Its General Secretariat is located in Paris, and its Executive Council. Policies are fixed at the Triennial Congresses. *See generally About Us*, INT'L CHAMBER OF COM., https://iccwbo.org/about-us/ [https://perma.cc/B239-39YT] (last visited Feb. 10, 2020).

F. Marine Insurances

London is now and always has been the most important location for the various types of maritime insurances, traceable to Lloyd's Coffee House after 1687, where syndicates of wealthy investors shared the risks of maritime adventures. ²⁶¹ The contract was expressed in Lloyd's SG Policy developed in 1779, the all-purpose marine insurance policy. ²⁶² In the late 19th century, the separate forms of marine insurance observed today were developed not only in London, but in national markets. "Clubs" of ship-owners began P & I to insure whole fleets. ²⁶³ Organizations of shippers and consignees provided cargo insurance for the CIF form of trade, ²⁶⁴ and some insurers specialized in hull insurance. ²⁶⁵ Government regulation soon followed, ²⁶⁶ and the various insurers needed protection from disastrous losses, hence the reinsurance industry centered in London. ²⁶⁷

XII. THE UNITED NATIONS

While NGOs developed maritime treaties and uniform laws, they were more often non-liability treaties as far as cargo owners and passengers were concerned. As the decolonization of Africa and Asia expanded membership of the United Nations, former colonies began to demanded changes in trade and shipping policies to benefit their developing economies. Accordingly, regulation of the ship owners'

^{261.} See generally Grant Gilmore & Charles L. Black, The Law of Admiralty (2d ed. 1975); Joseph Arnould, Arnolud's Law of Marine Insurance and Average (16th ed. 1981); Alex Parks, The Law and Practice of Marine Insurance and Average (1975).

^{262.} See William R.A. Birch Reynardson, The History and Development of P&I Insurance: The British Scene, 43 Tul. L. Rev. 457 (1969); SJUR BRAEKHUS & ALEX REIN, HANDBOOK OF P&I INSURANCE (2d ed. 1979).

^{263.} Id.

^{264.} See generally CLIVE M. SCHMITTHOFF, THE EXPORT TRADE: A MANUAL OF LAW AND PRACTICE (8th ed. 1988); AMERICAN INSTITUTE OF MARINE UNDERWRITERS, GUIDE TO CARGO INSURANCE (3d. ed. 1984); Samir Mankabady, *The New Lloyd's Policy and Cargo Clauses*, 13 J. MAR. L. & COM. 527 (1982).

^{265.} See A.E. Schumacher, The Hull Policy: An Introduction and Brief History, 41 TUL. L. REV. 233 (1967); Alex L. Parks, The New London Hull Clauses, 15 J. MAR. L & COM. 1 (1984).

^{266.} See generally The Marine Insurance Act 1906, c. 41 6 Edw. 7 (UK). There is no similar federal statute in the United States, despite federal admiralty jurisdiction. Each of the Coastal states has regulatory statutes, accordingly substantial litigation continues under the doctrine of Wilburn Boat Co. v. Fireman's Fund Ins. Co., 343 U.S. 310 (1955).

^{267.} See Graydon S. Staring, The Law of Reinsurance Contracts in California in Relation to Anglo-American Common Law, 23 U.S.F. L. REV. 1 (1988).

business operations came under international investigation and debate in the United Nations, producing harsh confrontations with traditional NGOs of ship owners and their insurers. The General Assembly created these new organizations, totally dependent on it for funding and staffing and without the independence of the Special Agencies created by a treaty.

A. UNCTAD

In 1964, Pursuant to Article 55 of the Charter, the Group of 77 (actually more than 100) used the General Assembly to create a new organization that would respond to its demands, the UN Conference on Trade and Development ("UNCTAD"). ²⁶⁸ Its goal has always been improvement of the economies of developing countries. Discussions at UNCTAD have always been highly political, like the General Assembly, but it was soon recognized that many trade problems involved legal questions that might be resolved through the science of comparative law, hence the General Assembly created in 1967 a Commission on International Trade Law ("UNCITRAL").

While UNCITRAL's membership was intended to be limited (yet representative of geographic areas and legal systems), UNCTAD is open to all members of the United Nations. The large bureaucracy of UNCTAD was necessary to prepare materials for the quadrennial conferences that worked very slowly because of the bloc system.²⁶⁹ Nevertheless UNCTAD has affected world-wide shipping through diverse schemes of regulation:

- 1. The 1974 Code of Conduct on Liner Conferences, in force in 1983²⁷⁰
- 2. The 1980 International Convention on Multimodal Transport²⁷¹

^{268.} See G.A. Res. 2205, at 99 (Dec. 19, 1966).

^{269.} Consensus-building was achieved through bloc membership. Blocs A and D are developing states. B are the developed states and C are the centrally planned economies. Unaffiliated nations are essentially silenced.

^{270.} See Convention on the Code of Conduct for Liner Conferences, Apr. 6, 1974, 1334 U.N.T.S. 15. These shipowners associations are based on trade routes and clearly violate antitrust and restrictive practices legislation, but are exempted therefrom for political reasons. See generally DANIEL MARX, INTERNATIONAL SHIPPING CARTELS: A STUDY OF INDUSTRIAL SELF-REGULATION BY SHIPPING CONFERENCES (1953).

^{271.} See United Nations Conference on Trade and Development, Convention on International Multimodal Transport, U.N. Doc. TD/MT/CONF. 17 (1979-1980). See also

- 3. The 1986 International Convention on Open Registry Fleets²⁷²
- 4. The 1993 International Convention on Maritime Liens and Mortgages (cf. CMI 1967)
- 5. The 1995 International Convention on Arrest of Ships, in Force in 2011 (cf. CMI 1955)

UNCTAD quickly entered into business operations of ship owners and their associations and insurers; price fixing, membership controls and vessel schedules, subjects inconceivable to an earlier day. UNCTAD's Shipping Committee has carried out investigations of all aspects of trade by sea and proposes new and unusual solutions. Their non-treaty activities have involved the merchant marines and ports of developing countries and the treatment of foreign vessels in ports.

B. UNCITRAL

The origins of UNCITRAL point to the importance of the science of comparative law.²⁷³ Its present location in Vienna, although a political decision, insured that European Civil law would not be overwhelmed by American versions of the Common law.²⁷⁴

William Driscoll & Paul Larsen, The Convention on International Multimodal Transport of Goods, 57 Tul. L. Rev. 193 (1982).

The Convention settled the nomenclature problem. CMI's 1970 Tokyo Rules used "intermodal" and "though bill of lading."

272. See United Nations Conference on Trade and Development, Convention on Conditions for Registration of Ships, U.N. Doc. TD/RS/CONF. 23 (1986). See also BOCZEK, supra note 160. Again, the UNCTAD product changed the nomenclature to "open registry fleet" but the Convention accomplished little actual changes. See also Moira L. McConnell, Business as Usual: An Evaluation of the 1986 United Nations Convention on Conditions for Registration of Ships, 18 J. MAR. 1 & COM. 435 (1987).

273. Ten years after the October 1956 Soviet invasion that crushed the independent communist regime of Imre Nagy and caused 250,000 Hungarian citizens to flee to Western Europe and the United States, Hungarian diplomats sought to escape the smothering embrace of Soviet COMECON by a renewal of East-West Trade through the non-Cold War operations of the United Nations (and the Group of 77).

274. UNCITRAL's operations in New York (1966-1980) had been closely connected to the work of the Legal Counsel and its library. Having built large facilities for United Nations purposes in Vienna (UNO City), Austria needed to fill the buildings, but UN employees were reluctant to leave New York, Geneva, and, Nairobi which also clamored for use. Politics and legend provided the necessary leverage in the plight of Soviet Jews, hoping to emigrate to Israel to escape persecution in Russia. The *Media* in Western Europe and America were supportive, but Soviet officials disapproved direct flight, but tolerated travel by train to Vienna where the emigrants went into camps to await gradual transfer to Israel. The camps became a political problem for the Austrian government which intended to close them. To prevent this, New York must transfer U.N. organizations and employees to Vienna. UNCITRAL moved in 1980 but has

UNCITRAL began its work with a very active package of problems, but UN budget difficulties have forced a diminishing of its activities.²⁷⁵

More directly concerned with maritime activities were UNCITRAL's projects on Arbitration (because of the almost universal use of arbitration clauses in charter parties for the transport of bulk cargoes) and the bill of lading for transport of non-bulk shipments. This put UNCITRAL in confrontation with CMI.²⁷⁶ The unhappy result has been the effort to redo the 1977 Hamburg Rules, already in force for thirty-four mostly developing nations, with the 2008 Rotterdam Rules still waiting for ratification by major maritime powers. On the positive side is the widespread use of the 1976 Arbitration Rules, not only for commercial disputes but for disputes arising from United Nations activities.

C. United Nations Environmental Programme ("UNEP")

This organization was created by the General Assembly in December 1972²⁷⁷ as the direct result of the June 1972 Stockholm Conference on the Human Environment, attended by 176 members

been able to divide the locations of its working groups and Plenary Sessions between New York and Vienna.

An early leader of UNCITRAL (1969-74) was Prof. John O. Honnold (1916-2011), of the University of Pennsylvania who had been one of the principal drafters of the Uniform Commercial Code in the United States. (Without federal legislation under the interstate commerce power, this project reached the same goal by uniform state legislation.) After graduating from Harvard Law School, he worked on the legal staffs of the Security Exchange Commission and the Wartime Office of Price Administration before joining the University of Pennsylvania Law School (1946-69 and 1974-84). He was also a civil rights lawyer in Mississippi in 1965 and an Executive of the American Friends Service Committee.

275. The existing 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards was assigned to UNCITRAL for further development. UNCITRAL produced CISG (Convention on the International Sale of Goods, 1980 (in force 1988)), a Convention on Bills of Exchange and Promissory Notes (1990), and the Convention on Liability of Terminal Operators in International Trade (1991). Respecting the carriage of cargo, there are two conventions: The 1978 Hamburg Rules (Convention on the Carriage of Goods by Sea) and the 2008 Rotterdam Rules (Convention on Contracts for the International Carriage of Goods Wholly or partly by Sea). There is also the 1995 Convention on Independent Guarantees and Stand-by Letters of Credit, the 2001 Convention on Assignment of Receivables in International Trade and the 2005 Convention on Use of Electronic Communication.

Non-treaty activities have been the 1976 UNCITRAL Arbitration and Conciliation Rules (1976), the Turn-key Guide to Contracts for Large Industrial Works, Insolvency, Security Interests and Transparency in State Investor Disputes.

276. Sweeney, UNCITRAL, supra note 243.

277. G.A. Res. 2997 (XXVII), at 43 (Dec. 15, 1972). A voluble environmentalist from Canada, Maurice F. Strong (1929-2015) was the first leader of the Environmental Programme, and able proselytizer for protection of the environment.

states and legions of experts. It was generally free of Cold War tensions, but could not escape the differences between the developed nations and the non-developed former colonies, euphemistically called "developing" nations. The key word "environment" was itself evolving out of the simple ecology of 19th century conservationists as cities became shrouded in smog of automobile exhaust and springtime became silent due to the absence of birds killed by dichlorodiphenyltrichloroethane ("DDT").

Instead of a stalemate between the developing world's willingness to risk all types of industrial pollution and the developed world's insistence on management and control of the same, the Stockholm Conference produced wordy compromises in twenty-eight principles in the style of the 1948 Declaration of Human Rights, not treaty language, but goals that might become treaties. It is easy to say that politicians in the General Assembly were not serious about the new organization, locating it away from centers of industry and finance. Nevertheless, UNEP has been effective with its limited budgets in generating treaties, ²⁷⁸ conferences, ²⁷⁹ guidelines, ²⁸⁰ and regional plans. ²⁸¹ It will surely force business to consider environment in business-planning.

^{278.} See generally Convention on International Trade in Endangered Species of Wild Fauna and Flora, Jan. 13, 1976, 993 U.N.T.S. 243; Basel Convention on the Transboundary Movements of Hazardous Wastes, Mar. 22, 1989, 1673 U.N.T.S 57. Convention on Biological Diversity, Jun. 5, 1992, 1760 U.N.T.S. 69; Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, Oct. 29, 2010, U.N. Doc. UNEP/CBD/COP/DEC/X/1.

^{279.} United Nations Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26 (Vol.1), annex I (June 3-14, 1992.) (publishing a Declaration of 27 Principles). *See also* World Summit on Sustainable Development, *Draft resolution submitted by the Vice-Chairman of the Committee on the basis of informal consultations held on draft resolution A/C.2/57n U.D. Doc A/C.2/57/L.83 (Dec. 10, 2002).*

^{280.} U.N. Envtl Programme, National Programmes of Action for the Protection of the Coastal and Marine Environment From Land Based Sources of Pollution, CEP Technical Report 45 (2006); U.N. Envtl Programme, Sustainable Coastal Tourism, Sustainable Consumption and Production Branch (2009).

^{281.} Regional Programs cover: the Mediterranean, Persian Gulf, the Red Sea, West and Central African Coasts, East African Coasts, Pacific Coasts of South America, Caribbean, South Pacific Islands, East Asia and South Asia. For Regional Programs see U.N. Envtl Programme, Intergovernmental Meeting on the Protection of the Mediterranean, UNEP/WG.2/f, Annex (Jan. 28, 1975-Feb. 4, 2975) (for the plan covering the Mediterranean); U.N. Envtl Programme, Combatting Pollution in the Kuwait Action Plan region, UNEP Regional Seas Reports and Studies No. 44 (1984); U.N. Envtl Programme, Action plan for the conservation of the marine environment and coastal areas of the Red Sea and the Gulf of Aden, UNEP Regional Seas Reports and Studies No. 81 (1986); U.N. Envtl Programme, Action Plan for the protection and development of the marine environment and coastal areas of the West and Central African

XII. WRECKS AND SALVAGE

The wrecks that cause damage to other vessels are found in territorial waters or possibly the continental shelf and are likely to have some value. Thus, the international community saw no need to deal specially with the wreck itself, but conflict among looters by land and sea involved a new industry of ship repairers. These facts raised problems respecting the people involved, as *salvors*. Just as French and English maritime communities had different interpretations of general average,²⁸² there were significant differences with respect to salvage. Accordingly, the CMI in its first international diplomatic conference at Brussels in 1910 dealt with "Assistance and Salvage at Sea." War at sea in the Second World War created a new world-wide salvage industry in sunken or damaged cargo and warships.

Damage to the environment had not been considered in 1910, but was prominent in the 1980s. Accordingly, IMO in cooperation with CMI held a diplomatic conference in 1988 to revise the 1910 salvage convention reworking many of the original provisions while adding provisions dealing with the environment.²⁸⁴ The 1989 convention came into force in 1996. Separate national regimes remain in force for wrecks, requiring marking, removal, and liability. In the United States, Congress has created statutory duties to mark and remove wrecks in navigable waters and the Supreme Court has recognized liabilities on

Region, UNEP Regional Seas Reports and Studies No. 27 (1982); U.N. Envtl Programme, Action Plan for the protection and development of the marine environment and coastal areas of the West and Central African Region, UNEP Regional Seas Reports and Studies No. 27 (1982); Permanent Commission of the South Pacific General Secretariat, Plan of Action for the Protection of the Marine Environment and Coastas Areas of the Southeast Pacific (1997); U.N. Envtl Programme, Action Plan for the Caribbean environment programme, UNEP Regional Seas Reports and Studies No. 26 (1983); U.N. Envtl Programme, Action Plan for managing the natural resources and environment of the South Pacific Region, UNEP Regional Seas Reports and Studies No. 29 (1983); U.N. Envtl Programme, Action Plan for the protection and development of the marine and coastal areas of the East Asian Region, UNEP Regional Seas Reports and Studies No. 24 (1983); South Asia Cooperative Env't Programme, South Asian Seas Programme.

^{282.} See LOWNDES, supra note 247.

^{283.} See generally GEOFFREY BRICE, THE LAW OF SALVAGE (3d ed. 1990). The General Maritime Law, as interpreted by the U.S. Supreme Court, allows a salvage claim *in rem* and *in personam* where non-abandoned maritime property is subjected to a maritime peril causing the voluntary action of the salvor to affect a successful result. See generally The Blackwall, 77 U.S. 1, 1 (1869).

^{284.} International Convention on Salvage, Apr. 28, 1989, 192 U.N.T.S. 194.

the wrecked vessel owner.²⁸⁵ IMO is attempting to develop universal rules on wrecks, leading to its 2001 Nairobi Convention.

XIII. NUCLEAR ENERGY PROBLEMS INVOLVING OCEANS

The 20th century nuclear industry has always been considered an international problem involving oceans despite early secrecy and efforts to confine its uses to the wishes of the United States. Scientists in Great Britain, France, and Russia (then the USSR) as well as Germany Nazis were also hard at work on a weapon and the possible uses of nuclear research for peaceful purposes were the constant speculation of the world press. The first meeting of the UN General Assembly in one of its first acts, created a Commission to study control of atomic energy. The US delegate, Bernard Baruch, proposed an International Atomic Development Authority, that would control and verify by uninhibited inspections of all atom-related activities anywhere in the world. The new organization should forbid further manufacturing of atomic weapons and require that all existing atomic weapons be destroyed. The United States was prepared to surrender its atomic secrets to such an organization.

Even before the Cold War began in earnest in 1948, the Soviet Union rejected the American proposal and proposed merely that all atomic weapons be forbidden. Inspection by experts was a problem with Iraq in 2003 and with North Korea in 2019. During a period of

^{285.} See 33 U.S.C. §409-12, 414-15.

^{286.} Letter Albert Einstein to President Roosevelt (Aug. 2, 1939) (Discussing the possibility of an atomic weapon on which Nazi scientists were working). While this letter alerted the American government and military during the pre-war increase in defense activities, the outbreak of war with Germany ultimately forced the issue. The secret "Manhattan Project" under American Major General Leslie Groves, with unlimited budgets began work on August 1, 1942 at Oak Ridge TN, Hanford, WA and Los Alamos, NM, using a whole generation of scientists lead by J. Robert Oppenheim, produced the first successful atomic bomb test at Alamogordo, NM on July 18, 1945, then detonated over Hiroshima, Japan on August 6, 1945, killing at least 75,000 people. See generally ROBERT RHODES, THE MAKING OF THE ATOMIC BOMB (1986).

^{287.} G.A. Res. A/RES/1(I) (Jan. 24, 1946).

^{288.} Bernard M. Baruch (1870-1965) born in Camden, South Carolina was son of a physician who moved the family to New York City in 1881 where Bernard attended the City College of New York and became a broker and member of the N.Y. Stock Exchange. He made a fortune speculating in sugar and by 1910 was considered a financial expert. He advised President Wilson on pre-war defense preparations and was Chair of the War Industries Board and later adviser at the Peace Conference. He became an adviser to President F.D. Roosevelt on national defense and the Office of War Mobilization. President Truman appointed him to the U.N. delegation and to the U.S. Atomic Energy Commission. He continued to offer informal advice from park benches in New York and Washington until the end of his life.

détente in the Cold War, the United Nations created in 1956 the International Atomic Energy Agency, now located in UNO-City Vienna. Its powers of inspection remain feeble, although its mandate is to promote the safe, peaceful uses of atomic energy.²⁸⁹ The oceans are heavily involved in three issues, discussed below: weapons testing, energy source for vessels, and disposal of radio-active waste.

A. Weapons Testing

Nations continued the testing of atomic weapons in distant places without large populations. The former USSR and China seem to have tested on land but the United States, Great Britain, and France used Pacific Ocean sites. The United States used Bikini and Eniwetok in the Marshall Islands; Great Britain used the Monte Bello islands off Australia; and France used its south-west Pacific colonies.

The French tests at Mururo Atoll from 1966 to 1974 produced lengthy litigation in the International Court of Justice ("ICJ").²⁹⁰ No decision was rendered because the issues had become moot.²⁹¹ Litigation by New Zealand concerning French underground tests had to be dismissed after France withdrew its consent to the ICJ jurisdiction.²⁹² The ICJ has, however, reviewed the theoretical situation, absent treaty provisions, of the threat or use of Nuclear Weapons in its 1996 Advisory Opinion.²⁹³ The Court could find no legal obligation outside of the Article 2(4) of the UN Charter.

A treaty regime on Nuclear Testing did not appear until the United States and former USSR were on the brink of war in the 1962 Cuban Missile Crisis.²⁹⁴ The first testing prohibition treaty was

^{289.} Conference on the Statute of the IAEA, *IAEA Statute* of the International Atomic Energy Agency (IAEA), Oct. 23, 1956, (amended Dec. 20, 1989). The 1955 General Assembly had created a fifteen-member Scientific Committee on the Effects of Atomic Radiation.

^{290.} Request for the Indication of Interim Measures of Protection Submitted by the Government of New Zealand (Fr. v. N.Z.) 1973 I.C.J. 49 (stating that France did not respond or appear).

^{291.} Nuclear Tests Case (Aus. v. Fr.), Judgment, 1974 I.C.J. Rep. 253 (Dec. 20) (decided by vote of nine to six that a judgment could no longer be issued).

^{292.} Nuclear Tests (N.Z. v. Fr.), Dissenting Opinion of Judge Sir Goffrey Palmer, 1995 I.C.J. Rep. 381. *See also* Nuclear Tests (N.Z. v. Fr.), Request for an Examination of the Situation in accordance With Paragraph 63 of the Court's Judgment of 20 December 1974, 1995 I.C.J. Rep. 288 (Sept. 22).

^{293.} Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Rep. 226 (Jul.8).

^{294.} See generally Richard J. Barnet, The Cuban Crisis and Disarmament, Proceedings, 57 AM. Soc. INT'L L. 1 (1963); Carl Q. Christol & Charles R. Davis, Maritime Quarantine: The

ready in less than a year after the crisis.²⁹⁵ Regional agreements have followed these basic agreements and the legal issues are no longer immediate.²⁹⁶

B. Energy Sources for Vessels

Plans for atomic fusion sources in land-based power plants quickly followed publications of the *secrets* of the atom, but the vast size inhibited use of the atom in air and rail transport. Instead, ships seemed ideal for the use of atomic power. Early on, Navies seized on the possible uses of nuclear energy for propulsion. In the United States, Admiral Hyman Rickover led a group of nuclear enthusiasts, including future President, Jimmy Carter. Successful operations of the nuclear submarine U.S.S. Nautilus in the Arctic seas were widely heralded.²⁹⁷ Nuclear power now fuels aircraft carriers and other large naval vessels.

The problem for the nuclear-powered Navy was access to the ports of the world. ²⁹⁸ Sovereign immunity of warships added further

Naval Interdiction of Offensive Weapons and Associated Materials to Cuba 1962, 57 AM. J. INT'L L. 525 (1963); Leonard C. Meeker, Defensive Quarantine and the Law, 57 AM. J. INT'L L. 515 (1963); Quincy Wright, The Cuban Quarantine, 57 AM. J. INT'L L. 546 (1963). Forty years after the crisis it was reviewed by the survivors and experts at Havana in Jan. 1992. See JAMES G. BLIGHT, BRUCE J. ALLYN & DAVID A. WELCH, CUBA ON THE BRINK (1993). See also MICHAEL DOBBS, ONE MINUTE TO MIDNIGHT: KENNEDY, KHRUSCHEV, AND CASTRO ON THE BRINK OF NUCLEAR WAR (2008).

295. Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water, Aug. 5, 1963, 480 U.N.T.S. 44. Before this treaty there had first been the Hot-Line Agreement of June 20, 1963). See Egon Schwelb, Nuclear Test Ban Treaty and International Law, 58 AM. J. INT'L L. 642 (1964); Philip G. Schrag, Scientists and the Test Ban, 75 YALE L.J. 1340 (1964).

296. Regional zones of land and water free of nuclear weapons have been established in treaties such as the 1967 Treaty of Tlatelolco (Latin America), 1985 Treaty of Rarotonga (South Pacific), 1995 Treaty of Pelindaba (Africa) and 1995 Bangkok Treaty (South East Asia).

297. The U.S.S. Nautilus was authorized by Congress in 1956. She arrived at the North Pole on August 5, 1958.

298. The right of the coastal state to control access of foreign vessels to its ports and internal waters was absolute, absent treaty provisions, until the League of Nations 1923 Convention designed to increase trade among nations by eliminating discriminatory treatment of vessels. Nevertheless, port authorities multiplied the documentation for vessel-entry often causing costly delays in ship schedules. IMCO began to unravel these commercial delays through preparation of uniform documentation and a convention to reduce the number of documents, the 1965 Convention on Facilitation of International Maritime Traffic, 591 U.N.T.S. 265. (IMCO also produced non-treaty codes of conduct among which is the 1965 International Maritime Dangerous Goods Code (IMDG). This is the background to the actions of friendly and allied nations in excluding the use of nuclear-powered naval vessels. The solution has been bilateral agreements. See generally A.V. Lowe, The Right of Entry into Maritime Ports in International Law, 14 SAN DIEGO L. REV. 597 (1977).

difficulties to the question of access. Indeed, even nations prepared to accept nuclear powered ships are not prepared to accept naval vessels carrying nuclear weapons.²⁹⁹

The United States also designed and produced the first nuclear powered commercial purpose vessel, the NS Savannah in 1960, named after the first steam-powered vessel to cross the Atlantic. ³⁰⁰ In 1962, CMI produced the Convention on the Liability of the Operators of Nuclear Ships. ³⁰¹ This convention was made necessary by the low level of shipowner (and insurer) liability in the 1957 CMI International Convention Relating to the Liability of Owners of Seagoing Ships, a fund based on the tonnage of the ship, but inadequate for nuclear accidents.

C. Nuclear Waste

The idea of the oceans as a giant sewer for the disposal of nuclear waste developed soon after it was realized that nuclear energy expended its fuels, like other fossil fuels, but the nuclear waste remained radio-active and deadly indefinitely. LOS I took note of the problem, but could not deal with it in the treaties. 302 It merely resolved that the new IAEA or General Assembly should take appropriate action. 303

LOS III preserves coastal state control in Art. 25 (2) stating, "the coastal State also has the right to take the necessary steps to prevent any breach of the conditions to which admission of those ships to internal waters. . . is subject." United Nations Convention on the Law of the Sea, supra note 65, at 407.

^{299.} General maritime law provides absolute sovereign immunity for warships at a time when there were no state-owned merchant ships. *See* Schooner Exchange v. McFaddon, 11 U.S. 116 (1812).

The issue came up before New Zealand's active campaign against French nuclear tests. *See generally* STUART MCMILLAN, NEITHER CONFIRM NOR DENY: THE NUCLEAR SHIPS DISPUTE BETWEEN NEW ZEALAND AND THE UNITED STATES (1987).

^{300.} N. S. Savannah, owned by the US Government, was operated by American Export Lines. Europe followed in 1964 with N.S. Otto Hahn.

^{301.} See Convention on the Liability of the Operators of Nuclear Ships, 57 AM. J. INT'L L. 268, 269 (1965), not in force. Avoiding the port access problem, the 1962 Convention does not affect "any right which a Contracting State may have under international law to deny access to its waters and harbors to nuclear ships licensed by another Contracting State." *Id.* at 275. The liability of the operator is limited to "1500 million francs in respect of any one nuclear incident, notwithstanding that the nuclear incident may have resulted from any fault of privity of that operator; such limit shall include neither any interest nor costs awarded by a court in actions for compensation under this Convention." *Id.* at 270.

^{302.} See Convention on the High Seas, art. 25(1), Apr. 29, 1958, 450 U.N.T.S. 11. 303. Id.

In the absence of the ability or interest of international organizations, the British government took action by calling a diplomatic conference to deal with *dumping* at sea, a new descriptive term beyond *pollution*. Shortly after conclusion of the June 1972 Stockholm Conference on the Human Environment, ³⁰⁴ the London Conference produced an international convention that would be widely ratified and observed. ³⁰⁵ However, like the 1954 London Oil Pollution treaty and the 1958 LOS I, radical solutions were not acceptable. ³⁰⁶

The 1973 London Dumping Convention is not based on prohibition, but on permission. Flag states are to administer the grants of permission to dump waste depending on the character and content of the waste in schedules of time and distance from shore, called annexes. For instance, in Annex I Radio- active wastes join other highly dangerous chemical warfare substances, mercury, persistent plastics, cadmium, and crude oil in a list of prohibited items never to be dumped at sea. Annex II items are less dangerous, but must be given special consideration as to time and place while Annex III items merely require a general permit.

Industrial waste was already a problem in 1972, but industries around the world continued to develop new ways to invalidate the 1972 scheme, requiring amendments in 1978, 1980, 1989, and 1992 in cumbersome diplomatic meetings of the signatories. After twenty-five years, the more powerful International Maritime organization ("IMO")³¹⁰ was ready to assume dumping responsibilities, but this

^{304.} Principle 7 of the Stockholm Declaration on the Human Environment states that "[s]tates shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea." Report of the United Nations Conference on the Human Environment, Principle 7, U.N. Doc. A/CONF. 48/14 Rev. 1, (June 16, 1972).

^{305.} See Convention of the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Dec. 29, 1972, 1046 U.N.T.S. 120.

^{306.} Two generations have endured the effects in Ireland of the radioactive effusions from factories in England in the *Mox Plant* case in domestic litigation, arbitration and an international tribunal, IT LOS. *See* Barbara Kwiatkowska, *The Ireland v. United Kingdom (Mox Plant) Case: Applying the Doctrine of Treaty Parallelism*, 18 INT'L J. MARINE & COASTAL L. 1 (2003).

^{307.} See Convention of the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, supra note 305, art. VI.

^{308.} Id.

^{309.} Id

^{310.} Preceding the 1996 Convention, IMO had prepared the International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on board Ships in 1993.

began with a 1996 Protocol for the 1973 treaty, a re-working of the permissive dumping idea. 311

Pursuant to the 1996 Protocol, the burden of proof is on the applicant to show that the waste material cannot be recycled or treated for reuse, and that the source has been effectively regulated so that dumping is the only solution. Subjects outside the reach of the 1972 Annexes are now regulated: export of waste to non-signatories for dumping and incineration of waste at sea.³¹² Under the 1996 Protocol, only the "sludge" produced from sewage is permitted to be dumped at sea.³¹³ Unfortunately, progress regarding environmental issues has become the victim of politics where even scientific research has become political.

XIV. THE ENCYCLOPEDIC TREATY: LOS III

Some of the most dangerous confrontations of the Cold War occurred in the 1960s, but the same period also featured genuine cooperation and the emergence of the concept of the common heritage of mankind. At the same time, some research, but mostly speculation, raised the possibility of taking manganese nodules from the ocean bottom. During the 1967 General Assembly, the Maltese delegate, Dr. Arvid Pardo, suggested that the deep seabed of the high seas be the common heritage of mankind under a United Nations agency that would regulate it. The following discussion is limited to

^{311.} See 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter, Nov. 7, 1996, 36 I.L.M. 1.

Absence of reasonable alternatives was present in the 1979 Treaty on the Conservation of Migratory Species of Wild Animals. *See* Convention on the Conservation of Migratory Special of Wild Animals, June 23, 1979, art. III, 1651 U.N.T.S. 33.

^{312.} *Id*.

^{313.} *Id*.

^{314.} Cold War incidents: U-2 shot down (1960s), Berlin Wall (1961), Cuban Missile Crisis and Blockades (1962), and Warsaw Pact Invasion of Czechoslovakia (1968) plus adventures in Angola, Ethiopia, and Somalia. See JOHN L. GADDIS, THE COLD WAR A NEW HISTORY, 73, 75, 115, 160 (2005). See also The Antarctic Treaty, Dec. 1, 1959, 402 U.N.T.S. 71; Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Jan. 27, 1967, 610 U.N.T.S. 205; Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, Dec. 5, 1979, 1363 U.N.T.S. 3; see generally Christopher C. Joyner, Legal Implications of the Common Heritage of Mankind, 35 INT'L & COMP. L. Q. 190 (1986).

^{315.} Arvid Pardo (1914-1999) was born in Rome, he received the doctorate in law from the University of Rome (1939) but as part of the underground resistance, he was captured and imprisoned by the Nazis in Italy and Germany (1940-45). He was hired by the United Nations for the Trusteeship Department from 1945 to 1964. When Malta became a member of the U.N.

the effect of LOS III on Oceans and does not deal with Aviation Law or Peace-keeping.

The 1968 General Assembly created the Sea-Bed Committee as a permanent organization with a membership of almost half the Assembly. The Abitter political dispute began the next year with the Moratorium Resolution, a non-consensus resolution opposed by the United States and twenty-seven other developed (i.e., capitalist and communist members) and another nineteen members abstained. By its terms, the resolution required all states, "to refrain from all activities of exploitation of the resources" of the sea-bed until an international regime could be established. Thus, no claim to any part of the area shall be recognized. Meanwhile, the possibility of naval confrontation in the Black Sea, Mediterranean Sea, and other politically sensitive areas forced a review by the major powers of the unanswered questions of LOS I and II: fisheries, islands, straits, and territorial seas. Then men stood on the moon!

The 1970 General Assembly could not resolve these issues by consensus. Thus, a third Law of the Sea Conference was called to begin in New York in December 1973³¹⁹, and would continue in various cities until December 1982.³²⁰ The result was a massive document of 320 articles, presuming a peaceful world governed by the UN Charter.³²¹ LOS III attempted to resolve all issues on the surface of the seas and the seabed. It is most successful in dealing with the surface, but in the unknown world of seabeds, it failed.

in 1964, he was appointed its U.N. Delegate, subsequently serving as Malta's Ambassador to the United States and the Soviet Union. He later served as Professor at the University of Southern California (1975-1991). *See generally* ARVID PARDO & ELISABETH M. BORGESE, THE NEW INTERNATIONAL ORDER AND THE LAW OF THE SEA (1977).

^{316.} Ad Hoc Sea Bed Committee was created by the General Assembly in 1967. A year later it became a Permanent Committee of all nations desiring to participate. *See* G.A. Res. 2340 (XXII), (Dec. 12, 1967) and G.A. Res. 3281 (XXIII), (Dec. 12, 1968).

^{317.} G.A. Res. 2574-D (XXIV), (Dec. 15, 1969).

^{318.} Id

^{319.} Instead of the usual adoption of Rules prepared in advance by the office of the Secretary General, the Rules for the Conference (including consensus, where possible) were adopted at the Second Session at Caracas in August 1974. *See* Third United Nations Conference on the Law of the Sea, *20th Plenary Meeting*, U.N. Doc. A/CONF.62/SR.20 (June 27, 1974).

^{320.} Id.

^{321.} Official Records of the Third United Nations Conference on the Law of the sea.

A. The Basic Treaty

It is significant in the history of the treaty that the negotiations took place while the General Assembly and other U.N. operations were under the New International Economic Order ("NIEO") compelled by the group of seventy-seven to achieve a redistribution of the wealth of the developed nations to the developing world of former colonies. Unlike the 1958 Conference, where there was no auxiliary assistance from ILC or other United Nations organ, the Sea-Bed Committee drafted treaty language and continued its work during LOS III. Governments also floated hundreds of proposals, resulting in seventeen volumes of Official Records with a thirteen volume Documentary Supplement. 323

Despite the requirement for consensus which had been attempted in 1976, 1979, 1980, and 1981, the final text was subjected to a vote, at the insistence of President Reagan, on April 30, 1982.³²⁴ The vote was an ominous prediction of the political situation that would inhibit actual ratification. Seventeen European nations abstained, and four

^{322.} Free-market capitalism was immediately rejected in favor of "centrally planned economics" despite increasing evidence of famine and unemployment under communism, finally acknowledged in the Yeltsin "reforms" and the demise of the former U.S.S.R.

The highly vocal majority in the United Nations General Assembly was determined to use their new voting controls to cause an irreversible change in world economics by forcing the developed world to surrender its wealth and technology. The developed world had firm control of the money in the World Bank ("IBRD") and the International Monetary Fund ("IMF"), depending on the amounts of their contributions, but the Group of 77 (actually more than 100 states), beginning in 1974 determined that every new effort in the U.N. system must respond to the New International Economic Order ("NIEO"). See G.A. Res. 3210 (S-VI), (May 1, 1974).

^{323.} Official Records of the Third United Nations Conference on the Law of the Sea, *supra* note 218; *see generally* MYRON H. NORDQUIST, JAMES KRASKA & SATYA N. NANDAN, UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982 COMMENTARY (2012).

For an American point of view on the saga of negotiations, see John R. Stevenson & Bernard H. Oxman, The Third United Nations Conference on the Law of the Sea: The 1974 Caracas Session, 69 Am. J. Int'l. L. 1, 7 (1975); John R. Stevenson & Bernard H. Oxman, The Third United Nations Conference on the Law of the Sea: The 1975 Geneva Session, 69 Am. J. Int'l. L. 763, 767 (1975); Bernard H. Oxman, The Third United Nations Conference on the Law of the Sea: The 1976 New York Sessions, 71 Am. J. Int'l. L. 247, 257 (1977); Bernard H. Oxman, The Third United Nation's Conference on the Law of the Sea: The 1977 New York Session, 72 Am. J. Int'l. L. 57, 58 (1978), Bernard H. Oxman, The Third United Nations Conference on the Law of the Sea: The Seventh Session (1978), 73 Am. J. Int'l. L. 1, 6 (1979); Bernard H. Oxman, The Third United Nations Conference on the Law of the Sea: The Eighth Session (1979), 74 Am. J. Int'l. L. 1, 7 (1980); Bernard H. Oxman, The Third United Nations Conference on the Law of the Sea: The Ninth Session (1980), 75 Am. J. Int'l. L. 211, 212 (1981); Bernard H. Oxman, The Third United Nations Conference on the Law of the Sea: The Tenth Session (1981), 76 Am. J. Int'l. L. 1, 3 (1982).

^{324.} See Oxman 1982, supra note 323.

nations voted no (The United States, Turkey, Israel, and Venezuela). 130 nations approved, essentially developing nations.

Consistent with current UN practice, no reservations were permitted.³²⁵ Sixty ratifications were required to bring the treaty into force. Twenty-two years passed before the 60th ratification, and LOS III became effective on November 16, 1994. By the terms of Article 311, the ratifications by states of LOS I have become superfluous, but of course LOS I treaties are still in force for the non-ratifiers of LOS III.

The "Common Heritage of Mankind" survives in Article 36 and 136, but the vast scheme for the seabeds had to be changed in 1994 to attract developed nations with maritime interests and capabilities. While no serious student of LOS III can argue that it is perfect, it has kept peace at sea for the past thirty-five years and it is unlikely that another ten-year effort could do any better. A brief review of the provisions on a geographic basis follows, but without the seabed controversy.

The system begins with the straight base lines (from LOS I) and proceeds seaward for twelve nautical miles of territorial sea.³²⁶ Territorial seas have always allowed foreign flag vessels a right of *innocent passage* to ports, but the use of the territorial sea by foreign vessels merely for passage was often limited. Those limitations are now spelled out in a list of activities of foreign vessels that are non-innocent.³²⁷

The contiguous zone, including limited enforcement powers over water areas, is extended to twenty-four nautical miles, but a new area extending two hundred miles from the baselines, the EEZ, is created.³²⁸

^{325.} Art. United Nations Convention on the Law of the Sea art. 309, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter Convention]. Reservations had been possible to 1958 LOS I, but with consensus instead of votes it seemed to be contradictory to the idea of consensus.

^{326.} *Id.* art. 3 ("Every state has the right to establish the breadth of its territorial sea up to a limit not exceeding twelve nautical miles, measured from baselines . . .").

^{327.} See Convention, supra note 203, art. 19(2)-20 (listing threat or use of force, any use of weapons, any information collecting prejudicial to the coastal state, any propaganda, launching aircraft or military devices any violation of coastal state laws on customs, immigration or sanitation, any pollution, fishing or maritime research, any interference with communications, any non-passage activity, and underwater navigation as non-innocent passage).

^{328.} Contiguous Zones for limited purposes can be traced to the U.S. Hovering Act of 1790 for customs enforcement, but the rationales have greatly expanded to immigration, sanitation, pollution and broadcasting. *See* Convention, *supra* note 203, art. 33. (describing the contiguous zone as one which extends to 24 nautical miles); *id.* art. 111 (granting a special provision for "hot pursuit"). *See also* Shigeru Oda, *The Concept of the Contiguous Zone*, 11

This is the same water column, governed by the continental shelf regime but on the surface. Because this area was once considered High Seas, there remains freedom of navigation, pipeline, and cable-laying. Foreign flag vessels are subject to international duties of environmental protection and coastal state regulation of exploration, exploitation, and conservation. The duties prevent waste dumping through inspection (and boarding) of suspected polluters, but with a right of the vessel to be released on bond.

The Continental Shelf of coastal states in LOS I was to a depth of two hundred meters. The definition was abandoned because of the wide divergence of shelf construction. LOS III declares that the coastal state may create its exclusive right to explore and exploit resources of the continental margin, or two hundred nautical miles from the baselines. The remainder of the oceans not claimed by a coastal or archipelagic state are defined as the High Seas. The new definition is somewhat smaller in scope than in LOS I and subject to environmental protection and conservation of fishery resources.

Dispute settlement by arbitration is required where appropriate, but a new tribunal outside the ICJ was created in 1996, the International Tribunal for the Law of the Sea. It is composed of twenty-one judges, representing the "principal legal systems of the world" and of the "highest reputation . . . of recognized competence."³³² The Tribunal sits in Hamburg, Germany and works in chambers. The rules of dispute settlement are complex and likely to be as intricate as the facts of any dispute.

INT'L COMP. L.Q. 131 (1962); Convention, *supra* note 203, arts. 55 & 57 (defining exclusive economic zone loosely as "an area beyond and adjacent to the territorial sea" but "shall not extend beyond 200 nautical miles from the base-lines"). The coastal state has sovereign rights" to explore, exploit, conserve and manage "natural resources, living or non-living," *id.* art. 56.

^{329.} United Nations Convention on the Continental Shelf, art. 1, Apr. 29, 1958, 499 U.N.T.S. 311 ("to where the waters reach a depth of 200 meters or beyond that limit to where the depth of the super-adjacent waters admits of the exploitation"). Gulf of Mexico oil drilling for convenience to the land sources and to avoid the submarine menace in the Atlantic produced the Truman Proclamation to justify high-seas drilling operations, 59 Stat. 884 (1945). In 1953 Congress granted continental shelf lands to the states, Submerged Lands Act, 43 U.S.C. §§ 1301-1313, while retaining federal controls of areas beyond state jurisdiction in the Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331-1356.

^{330.} See Convention, supra note 203, art. 76(1) ("throughout the natural prolongation of its land territory to the outer edge of the continental margin, or . . . 200 miles").

^{331.} See id. arts. 116-20, 137.

^{332.} IT LOS Arts. 290-295; see also J.F. Noyes, The International Tribunal for the Law of the Sea, 32 CORNELL INT'L L.J. 109 (1998); B.H. Oxman, Complementary Agreements and Compulsory Jurisdiction, 95 Am. J. INT'L L. 277 (2001).

B. Deep SeaBeds

Despite the many clever solutions to long-standing surface problems, it was the 19th century Utopian Socialism of the deep seabeds that put LOS III into politics and the NIEO struggle. Marxists in the Soviet Union and China were not strong supporters, but the developing nations of Africa, Asia, and South America were the ones who demanded the regime.333

The supposed mineral wealth of the deep sea beyond the limits of national claims is located in The Area subject to the control of the Seabed Authority, located in Jamaica.³³⁴ For mining purposes, the Seabed Authority creates The Enterprise whose efforts accompany those of private or state-owned mining companies licensed by the Authority in exchange for royalties, fees and mandatory transfer of technology. The profits of the Authority are subject to an equitable division favoring the developing states. Not only does the Authority encourage mining, but it can also prevent over-production.³³⁵

In 1994, after the 1991 collapse of the Soviet Union, it appeared that LOS III would come into force with no significant maritime power having ratified it and the US Congress having enacted a deep-sea minerals statutory scheme, that would conflict with LOS III Deep Sea provisions and was intended to produce a hostile confrontation.³³⁶

C. The 1994 Special Agreement

Alarmed by the possible conflict, UN Secretary General Boutros-Ghali conducted informal discussions to introduce free market principles that enabled developed nations to ratify LOS III by means of a Special Agreement that will accompany the LOS III provisions, but the Agreement is to govern treaty language if there is a difference of

^{333.} Arts. 133-158; See G.A. Res. 2749 of Dec. 17, 1970, Declaration of Principles Governing the Sea-bed and the Ocean Floor and the Subsoil Thereof beyond the Limits of National Jurisdiction. (Principle 9); B.H. Oxman, The High Seas and the International Seabed Area, 10 MICH. J. INT'L L. 526, 563 (1989).

^{334.} See the Authority Arts. 153, 156-158 (All signatories are members, but a twenty-one member Council is selected from the members. The Area is, "the seabed and ocean floor and subsoil thereof beyond the limit of national jurisdiction" Art. 1 (1), once incorrectly known as the abyssal plain before discovery of mountains and deep valleys on the ocean bottom).

^{335.} The Enterprise. See Annex III and art. 158 (2); arts. 140, 150, especially art. 150 f, g,

^{336.} Deep Sea Hard Minerals Resources Act, 30 U.S.C. §§ 1401-1471.

interpretations.³³⁷ The General Assembly held a Special Session in July 1994 to affirm the Agreement without dissent. Today, LOS III has virtually world-wide membership except the United States, although President George H.W. Bush approved, and President Clinton sent the LOS III Treaty and Special Agreement to the Senate in 1994.³³⁸ Thus far, the Senate has failed to act. Irrational failure of US ratification has hardly stopped LOS III in its tracks. Many subsidiary organizations are now operational without the United States and many American citizens are involved in them through the relevant NGOs.

XV. MARITIME ARCHAEOLOGY

Technological advances since the Second World War made it possible to remove parts of historic wrecks from the ocean bottom. International concern for the rightful ownership of stolen art works in that war put the subject matter in the care of UNESCO.³³⁹ UNESCO had already created, the 1970 International Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of

^{337.} Boutros Boutros-Ghali (1922-2016) born in Cairo, a Coptic Christian, grandson of a former Prime Minister; he graduated from Cairo University (1946) and received a doctorate from the University of Paris (1949). He was a Fullbright Fellow at Columbia University (1954-55). He was Professor at Cairo (1949-1977) and Acting Foreign Minister (1977-79) and Minister of State for Foreign Affairs until 1991 assisting in the Egypt-Israel Peace. He became the Sixth Secretary General of the United Nations (1992-1996) but his reelection was vetoed by the United State. His tenure was affected by civil wars in Rwanda, Angola, Somalia and the former Yugoslavia. He later served as Secretary General of La Francophone, the group of French-speaking nations. *See* G.A. Res. 48/263 (1994) and 1836 U.N.T.S. 3. (There were seven abstentions including Russia. The Special Agreement required 40 instead of 60 ratifications that had to include at least five developed economies. It entered into force July 28, 1996). *See* B.H. Oxman, The 1994 Agreement and the Convention, 88 Am. J. Int'l L. 687, 688 (1994); L.B. Sohn, International Law Implications of the 1994 Agreement, 88 AM. J. INT'L. L. 696, 696 (1994).

^{338.} See Oxman, supra note 323.

^{339.} UNESCO, established at Paris in 1946 has had confrontational leadership causing the United States to withdraw for occasional periods. A United States representative was Mrs. Jean Gerard, an editor of Vol. 1 of this journal. Almost simultaneous with the work of UNESCO and LOS III has been the work of Dr. Robert Ballard of the Woods Hole Oceanographic Institute on the sunken wreck of R.M.S. Titanic resulting in a federal statute, "R.M.S. Titanic Maritime Memorial Act (1986)" 16 U.S. Code § 450rr and much litigation. See e.g., R.M.S. Titanic, Inc. v. Haven, 171 F.3d 943 (4th Cir.) cert. denied 528 U.S. 825 (1999); Columbus America Discovery Group v. Atlantic Mutual Ins. Co., 974 F.3d 450 (4th Cir. 1992) cert. denied 531 U.S. 1144 (2001); G. Kinder, Ship of Gold in the Deep Blue Sea (2008) The Supreme Court made an effort to unravel the constitutional problems of the Abandoned Shipwreck Act of 1987 (43 U.S Code §§ 2101-2106). Confusion remains as to the exclusion of constitutionally protected laws of salvage and finds. See J.P. Jones, The United States Supreme Court and Treasure Salvage Issues Remaining after Brother Jonathan, 30 J. Mar. L. & Comm. 205 (1999).

Ownership of Cultural Property, 340 and the 1972 International Convention on Protecting the World's Cultural Heritage. A multilateral treaty was developed in 2001 to deal with maritime archaeology. Its all-inclusive terminology is Underwater Cultural Heritage. It has received a very negative reaction from developed maritime nations. The subject is already covered in the 1982 LOS III. 341

XVI. IMO: GUARDIAN OF THE OCEANS

This review of ocean laws and policies concludes with the IMO, now the protector and developer of ocean-based activities and treaties. This new organ of the United Nations is not yet the "coordinator" of all ocean problems, and there may still be "turf wars" with other agencies, especially on the environment.

Safety of Flight had produced a powerful agency, ICAO in 1947. 342 European and Asian ship owners, their insurers, and protective associations would not permit a similar authority over traditional shipping cartels in 1948.³⁴³ It was public opinion that pushed governments to demand an organization with power to deal with a complacent shipping industry, always searching for money-saving measures that compromised safety and clean oceans.

The 1948 treaty that produced IMCO³⁴⁴ created a temporary talking shop. Even that measure required a ten-year struggle to be established only after a pledge to forego restrictive practices controls (anti-trust) in an industry replete with such non-competitive agreements. Nevertheless, there were some notable achievements and some disappointments in IMCO's history:

^{340.} International Convention on the Means of Prohibiting and Preventing the Illicit Import, Export, and Transfer of Ownership of Cultural Property, Nov. 14, 1970, 823 U.N.T.S.

^{341.} United Nations Convention on the Law of the Sea, arts. 149, 303, Dec. 10, 1982, 1833 U.N.T.S. 3.

^{342.} The International Civil Aviation Organization (ICAO) was authorized by the 1944 Chicago Convention (15 U.N.T.S. 295) but frequently amended; was established at Montreal in 1947. At the time its provision for tacit amendment was unique. Previously amending or modifying a treaty in force required a new diplomatic conference of all signatories. Under articles 37 and 90 the Council's action (by 2/3 vote) lays before the member states for 90 days. After which it becomes effective unless half of the member states disapprove. (See e.g. Art. XII of STWC)

^{343.} Id.

^{344.} Convention on the International Maritime Organization, Mar. 6, 1948, 289 U.N.T.S 48; see John M. Cates Jr., United Nations Maritime Conference, 18 DEPT. St. BULL. 495 (1948).

1965	Convention on Facilitation of Maritime Traffic ³⁴⁵
1969	Tonnage Measurement Convention ³⁴⁶
	Convention on Civil Liability for Pollution Damage ("CLC") ³⁴⁷
	Convention on Intervention on the High Seas for Pollution Casualties ³⁴⁸
1971	Special Trade Passenger Ships (SIMLA Rules for Pilgrimages to Mecca) ³⁴⁹
	Carriage of Nuclear Materials ³⁵⁰
	Fund Convention for Oil Pollution Damage ³⁵¹
1972	Safe Containers Convention ³⁵²
	Convention on Dumping of Waste from Ships ³⁵³
1973	Convention on Prevention of Pollution from Ships (MARPOL)
1976	International Maritime Satellite Convention (INMARSAT) ³⁵⁴
1978	Standards of Training for Seafarers (STCW) (with $ILO)^{355}$
	Protocol to MARPOL 73 ³⁵⁶
1979	Maritime Search and Rescue (SAR) ³⁵⁷

^{345.} Convention on Facilitation of Maritime Traffic, Apr. 9, 1965, 973 U.N.T.S 3.

^{346.} Tonnage Measurement Convention, June 23, 1969, 970 U.N.T.S. 211.

^{347.} Convention on Civil Liability for Pollution Damage, Nov. 29, 1969, 910 U.N.T.S.

^{348.} Convention on Intervention on the High Seas for Pollution Casualties, Nov. 29, 1969, 974 U.N.T.S. 255

^{349.} Special Trade Passenger Ships Agreement, Oct. 6, 1971, 1110 U.N.T.S 57.

^{350.} Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material, Dec. 17, 1971, 1064 U.N.T.S. 3.

^{351.} International Convention on Establishment of an International Fund Convention for Oil Pollution Damage, Dec. 18, 1971, 1046 U.N.T.S. 20.

^{352.} International Convention for Safe Containers, Dec. 2, 1972, 1340 U.N.T.S. 184.

^{353.} Convention on the Prevention of Marine Pollution by Dumping Waste and Other Matter, Nov. 13, 1972, 1143 U.N.T.S. 105.

^{354.} International Maritime Satellite Convention, Sept. 3, 1976, 1340 U.N.T.S. 61.

^{355.} International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, July 7, 1978, 1405 U.N.T.S. 97

^{356.} International Convention for the Prevention of Pollution from Ships (MARPOL) Nov. 2, 1973 17 I.L.M. 546.

^{357. 1405} U.N.T.S. 97.

These major treaties were supplemented by protocols, regional agreements, and memoranda of understanding ("MOU") on port state controls and other issues. IMCO also participated in the London-based safety agreements of the International Convention for the Safety of Life at Sea ("SOLAS") and ("COLREGS"). 358

The new Constitution of 1982 resulted in a new organization staffed by highly educated activists in pursuit of serious goals to accommodate ocean and shipping problems that had accumulated since 1945 and predict the problems to be faced in the future. It researches, studies, advises and legislates (by recommendations and treaties). Similar to other specialized agencies, it has an Assembly of all signatory states, ³⁵⁹ an Executive Council, ³⁶⁰ and a powerful Secretary General. ³⁶¹ It has its own budget, raised from its membership. IMO functions through Committees: The Maritime Safety Committee, ³⁶² The Technical Cooperation Committee, ³⁶³ the Marine Environment

^{358.} Convention on the International Regulations for Preventing Collisions at Sea, Oct. 20, 1972, 1056 U.N.T.S. 16.

^{359.} Assembly: All 170 current signatories but non-signatory states are invited to associate.

^{360.} Council: United Nations practices demand a geographic spread and differing socioeconomic systems among the twenty-one member states, plus a high shipping tonnage requirement.

^{361.} The first Secretary General Dr. C.P. Srivastava (1920-2013), born in Lucknow, India, graduated in law from Lucknow University (1944) and joined the Civil Service in the Ministry of Transport and was in 1961 the first managing director of the state-owned Shipping Company of India, attending international conferences. In 1974 as IMCO and other U.N. agencies confronted NIEO he was elected Secretary General of IMCO and reelected. He also became the first Secretary General of the IMO, after which he served at the World Maritime University and the Malta Institute of Maritime Law. William A. O'Neil born in Ottawa in 1927 and a graduate in civil engineering from the University of Toronto (1949), he had a long career with the St. Lawrence Seaway (President, 1980-89). He was appointed Commissioner of the Coast Guard (1975-80). He represented Canada at IMCO from 1972 and on the Council of IMO where he was Chair from 1980 until his election as Secretary General in 1984 where he served four terms and Chancellor of the World Maritime University (infra n. 263). The present S.G. Kittack Lim (born 1956 in South Korea) is a graduate of W.M.U.

^{362.} This most important committee in IMCO and IMO was the subject of international litigation when European shipowners attempted to exclude Panama and Liberia which deserved places because of the size of their fleets. The advisory opinion of ICJ held the committee improperly constituted by their exclusion. 1960 I.C.J. 150.

^{363.} Technical Cooperation has under its responsibilities the provision of assistance to developing countries with new ports and merchant ship fleets.

Protection Committee,³⁶⁴ and The Legal Committee.³⁶⁵ IMO also supports and encourages the World Maritime University located in Malmo, Sweden.³⁶⁶

IMO has an aggressive plan of publication of all its current activities and plans. Since 1982 IMO has set standards of safe shipping and pollutions free environment through treaty projects which now feature the possibility of "tacit amendment" introduced by ICAO:

1988	Rome Convention on Suppression of Unlawful Acts Against the Safety of Maritime Navigation (Fixed Platforms Protocol) ³⁶⁷
1989	Salvage Convention ³⁶⁸
1990	Convention on Oil Pollution Preparedness, Response and Cooperation ³⁶⁹
1993	Torremolinos Convention on Safety of Fishing Vessels ³⁷⁰
1995	Standards of Training for Fishing Vessels ³⁷¹
1996	Carriage of Hazardous and Noxious Substances ³⁷²

^{364.} Environment Protection must supervise the many activities of IMO's environmentalists. It cannot yet control (i.e. coordinate) what other agencies are doing.)

^{365.} Although the organization's daily operations are in English and French, treaties must be in the six official languages where very careful drafting requires the exact same meaning to each language version.

^{366.} The World Maritime University was established in 1983 by IMO as a graduate school and research institute to insure that highly qualified experts deal with Maritime affairs at national and international levels. Although located in Sweden, it operates only in the English language. Its students must have five years work experience in Maritime activities. They enjoy world-wide field studies. Branches now operate in Shanghai and Dalian, China.

^{367.} Rome Convention on Suppression of Unlawful Acts Against the Safety of Maritime Navigation, Mar. 10, 1988, 1678 U.N.T.S. 221.

^{368.} Salvage Convention, Apr. 28, 1989, 1953 U.N.T.S. 193.

^{369.} Convention on Oil Pollution Preparedness, Response and Cooperation, Nov. 30, 1990, 1881 U.N.T.S. 51.

^{370.} IMO, Torremolinos International Convention for the Safety of Fishing Vessels, http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/The-Torremolinos-International-Convention-for-the-Safety-of-Fishing-Vessels.aspx [https://perma.cc/V77L-MUJL] (last visited Feb. 11, 2020).

^{371.} IMO, International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-on-Standards-of-Training,-Certification-and-Watchkeeping-for-Fishing-Vessel-Personnel-.aspx [https://perma.cc/8EGM-GUKG] (last visited Feb. 11, 2020).

^{372.} Carriage of Hazardous and Noxious Substances, May 3, 1996, 1958 U.N.T.S. 912 35 ILM 1415.

Convention on Bunker Oil Pollution³⁷³

2001	Convention on Control of Harmful Anti-fouling Systems on Ships ³⁷⁴
2002	Control and Management of Ship's Ballast Water ³⁷⁵
2007	Naroibi Convention on Removal of Wrecks ³⁷⁶
2009	Hong Kong Convention on Safe and Sound Recycling of Ships ³⁷⁷

The goal of safe and pollution-free shipping is of major importance to prosperous economies as well as developing states, but treaties³⁷⁸ are not the only road. IMO concentrates on training of safe practices, assisted by Guidelines and Codes of Conduct that cover the life and working of ships from construction to demolition and recycling. Accordingly, new treaty projects may absorb less of IMO's activities. Even though not specifically mentioned by the General

^{373.} International Convention on Civil Liability for Oil Pollution Damage, May 30, 1996, 973 U.N.T.S. 3.

^{374.} Convention on Control of Harmful Anti-Fouling Systems on Ships, Oct. 5, 2001, 26 U.N.T.S. 2403.

^{375.} IMO, International Convention for the Control and Management of Ships' Ballast Water and Sediments, U.N Doc. BWM/CONF/36 (Feb. 16, 2004), http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Control-and-Management-of-Ships'-Ballast-Water-and-Sediments-(BWM).aspx [https://perma.cc/33LL-MM4F].

^{376.} IMO, *Naroibi Convention on Removal of Wrecks* (May 18, 2007), http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/Nairobi-International-Convention-on-the-Removal-of-Wrecks.aspx [https://perma.cc/ZLH7-9E32].

^{377.} See The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, May 15, 2009, http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/The-Hong-Kong-International-Convention-for-the-Safe-and-Environmentally-Sound-Recycling-of-Ships.aspx [https://perma.cc/257M-KG2L].

^{378.} IMO conventions since 2009: The Manila Amendments to the Annex to the Int'l Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) 1978, Jul. 1, 2010, STCW/CONF.2/33, http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-on-Standards-of-Training,-Certification-and-Watchkeeping-for-Seafarers-(STCW).aspx [https://perma.cc/6GNP-BJ5Q]; Cape Town Agreement of 2012 on the Implementation of the Provisions of the 1993 Protocol relating to the Torremolinos International for the Safety of Fishing http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/The-Torremolinos-[https://perma.cc/V4RF-International-Convention-for-the-Safety-of-Fishing-Vessels.aspx 6J8X]; 2010 Protocol to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS) https://www.hnsconvention.org/wp-content/uploads/2019/04/2010-HNS-Protocol e.pdf [https://perma.cc/W2KZ-YRSN].

Assembly in 2017,³⁷⁹ it would be entirely appropriate for IMO to be assigned a leading role in the UN efforts to control waste and plastics on the oceans by treaty.

XVII. CONCLUSIONS

In the 1967 film "The Graduate," Benjamin encounters a guest at his twenty-first birthday party who tells him that his future should be "Plastics." Fifty years later, plastics are everywhere. Almost everything manufactured has plastic components or is entirely plastic, a domination because plastic is cheap and as strong as its alternatives. Because the lifestyles of people everywhere are unconsciously involved with plastics, a campaign against plastics generally would be unwinnable. A simpler goal might be achieved – the elimination of single-use plastics, except in medicine, where multi-use and biodegradable substitutes can be developed.

A good place to start would be the oceans because they have been the subject of bilateral, multilateral, and international controls for a very long time. This Article has dealt with warfare, communications, fisheries, pollution, dumping, mineral resources, historic preservation, transportation, and social justice involving oceans as possible paradigms. Currently, the European Parliament approved a ban on single-use plastics to take effect in 2021. The vote on October 10, 2018 was 571 to 53, the first step in legislating the ban that must next be considered by the Council of Ministers. (The Parliament's action had been previously endorsed by the European Commission.) 380

Civilized people cannot permit discarded plastics to outnumber the fish of the sea. Surely protection of the ocean environment is an inspiring mission for all people everywhere.

^{379.} See U.N. General Assembly A/Res. 72/73, supra note 1.

^{380.} Unattributed, *Single-Use Plastics Ban Approved by European Parliament*, BBC NEWS (Oct. 24, 2018), https://www.bbc.com/news/world-europe-45965605 [https://perma.cc/AP6N-BKVT].