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OIL POLLUTION OF THE OCEANS

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Long before the time of Jonah and the whale\(^1\) seamen have lightened their vessels when in peril of the sea by throwing cargo overboard, a practice known in maritime law as jettison.\(^2\) Intentional jettison of properly stowed cargo creates rights between the parties to the maritime venture so that the loss is shared equitably by the cargo owners and the shipowner under the traditional maritime doctrine of general average contribution.\(^3\) Unfortunately, no such traditional doctrine prescribes the rights of those who are collaterally damaged by jettison. In the age of sail there was no problem of pollution to harbors and coasts,\(^4\) but there was an incipient problem from careless deposit of refuse. Thus, there existed legislation as early as 1814 in Great Britain to prohibit emptying rubbish or filth into any navigable river, harbor or haven.\(^5\) As sail gave way to coal and coal in turn gave way to oil after the First World War,\(^6\) the problem of oil pollution of waters was promptly recognized. However, legislative solutions came slowly.

This discussion will be limited to pollution caused by marine transport of persistent oils, i.e., crude oil, diesel fuel and heating oil. The chief characteristics of these products are their inability to dilute readily in water and their stability and buoyancy compared to refined products, i.e., kerosene and gasoline. This is not to dismiss problems of pollution\

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2. In addition to deliberate jettisoning of cargo, sailors, at least from the time of the Romans, have poured oil on turbulent waters to calm them since the oil prevents the crests of the waves from breaking and delays development of smaller waves by increasing surface tension. A. Knight, Modern Seamanship 276-78 (12th ed. 1953).
3. "General average contribution is defined to be a contribution by all the parties in a sea adventure to make good the loss sustained by one of their number on account of sacrifices voluntarily made of part of the ship or cargo to save the residue and the lives of those on board from an impending peril, or for extraordinary expenses necessarily incurred by one or more of the parties for the general benefit of all the interests embarked in the enterprise." Star of Hope, 76 U.S. (9 Wall.) 203, 228 (1869).
4. Thus the report of the House of Commons Select Committee on Science and Technology on Coastal Pollution notes: “Although hydrocarbon oil or petroleum was known to exist by the writer of the book of Genesis, wherein it is referred to as slime in the pits of the Vale of Siddim, and although Herodotus tells us in the fifth century B.C. of lumps of bitumen in the waters of Babylonia, for Britain, coastal pollution may be said to have begun in 1908...” Introduction to Report (1968).
5. 54 Geo. 3, c. 159, § 11 (1814).
6. In 1914 there were but 501 vessels of 1,721,747 gross tons total using oil for propulsion but by 1925 there were 3,822 vessels of 19,372,615 gross tons. See Lloyd’s Register of Shipping, Register Books and U.N. Doc. E/CN.2/68 (1949).
caused by industrial and sanitary wastes, radioactive waste and seepage from submarine oil fields, but rather to concentrate attention on an important, world-wide enterprise with unique risks in order to examine existing law for gaps and uncertainties in light of the realities of modern tanker traffic.7

While there are certain expectable and usually inconsequential pollution risks in the loading and discharging operations of tankers, and the problem of deliberate discharge of oily wastes from tank cleaning operations has not yet been completely eliminated, both can be controlled through technology. Today the danger to the human environment comes from collision, grounding and foundering of oil tankers with huge vessel capacity. Thus, under normal circumstances, we are not dealing with a direct peril to human life, but rather with the consequential damages resulting from marine disasters. It has been the colossal oil spills of the past several years which have brought the problem forcefully to the public mind and public outcry is now pushing governments to take radical corrective action.

I. Scope of the Problem

For the present and the foreseeable future there is no adequate substitute for the world-wide demands for crude oil to fuel industrial society, and due to formidable natural or marine barriers, there are many important industrial states which cannot be served by pipelines.8 Ocean transport of petroleum products is largely a one-way trade from the principal supply areas in the Middle East, Southeast Asia and the Caribbean, to Western Europe, Japan and North America.9 This vital resource is carried in the busy coastal shipping lanes along the United States' east coast north of Hatteras, the English Channel, the Caribbean and the Sea of Japan—all major tourist areas. In many instances the shipping lanes are outside the territorial limits of any state, thereby

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8. Ocean transport of petroleum is a major item in world trade involving 700 million tons of petroleum products annually. Of this amount 425 million tons are shipped to Europe, the greater part (217 million tons) coming from the Middle East by way of the Cape of Good Hope since the Arab-Israeli War of June, 1967. N.Y. Times, June 4, 1968, at 88, col. 2; N.Y. Times, June 11, 1968, § 6 (magazine), at 24, 110-15.

9. The one-way nature of the traffic creates additional problems in that giant vessels must carry sea water as ballast in the cargo tanks which in turn becomes polluted by contact with crude oil.
creating international law problems to add to the domestic conflict.\textsuperscript{10} To transport these cargoes the industry is presently using many vessels of Second World War vintage with carrying capacities of about 20,000 Dead Weight Tons (D.W.T.). However, vessels of 100,000 D.W.T. are common; vessels of 200,000 D.W.T. and 300,000 D.W.T. are being constructed, and it may be possible to build vessels of 450,000 to 500,000 D.W.T. in the near future. Thus, the possibility grows that a spill from one of these giant tankers might impair the maritime resources of several nations.

The dangers from oil pollution are: the destruction of fish, shellfish, sea birds, fishing gear or beach installations; the creation of fire hazards in ports; the fouling of small boats; and, the loss of natural beauty with resulting financial losses to resort owners and the dependent tourist industry.

All these problems were brought forcefully to the public mind in March, 1967 when the \textit{Torrey Canyon}, a 61,000 gross tons "jumboized"\textsuperscript{11} tanker, broke up after grounding on Seven Stones Reef\textsuperscript{12} eight miles from one of the Scilly Isles off Great Britain and thus not in territorial waters. The vessel was owned by a Bermuda corporation, registered in Liberia.\textsuperscript{13}

\textsuperscript{10} The question of the breadth of the territorial sea has been in flux since the Second World War due to the erosion of the “three-mile” rule. The \textit{Geneva Convention on the Territorial Sea and the Contiguous Zone}, April 29, 1958, (1964) 15 U.S.T. 1606, T.I.A.S. No. 5639, 516 U.N.T.S. 205, was silent on the subject and the April, 1960 Conference at Geneva on the same subject failed to produce the necessary two-thirds majority for any proposal. Accordingly, the breadth of the territorial sea is largely a question of domestic law for each nation. U.N. Doc. A/CONF. 13/C.1/L. 11 (rev. April 1, 1958) contains a summary of the territorial sea claims. An informal list of territorial sea claims as of June 7, 1968 is contained in Judge Advocate General (Navy), Off the Record 12-15 (Issue no. 39, June 7, 1968). Thirty-seven nations, including Australia, Belgium, Canada, Denmark, France, West Germany, Japan, The Netherlands, the United Kingdom and the United States, claim only three miles. The Scandinavian nations, except Denmark, claim four miles. Sixteen nations claim six miles. Mexico claims nine miles. Thirty-seven nations, including China, India, and U.S.S.R., claim twelve miles. Eight nations claim from twelve miles to 200 miles.

\textsuperscript{11} “Jumboizing” is a process by which the bow and stern sections of an existing tanker are removed from an older ship and added to a newer and much enlarged midsection with greater cargo-carrying capacity. The navigation bridge, crew’s quarters and propulsion machinery are in the older stern section.

\textsuperscript{12} Seven Stones Rocks has a lightship on it but the rocks are not visible except at low water and they are not claimed as territorial. C. Colombos, The International Law of the Sea 127-28 (6th ed. 1967).

\textsuperscript{13} Under Liberian law it is permissible for an alien corporation to register a vessel and obtain Liberian nationality therefor. \textit{Laws Concerning the Nationality of Ships} (ST/LEG/SER. B/5, 1955, p. 98). This is unusual in that the domestic laws of most states require total ownership by nationals or at least that a major portion of the ownership must be national. The problem of “Flags of Convenience” is on the periphery of the pollution question because much of the world’s tanker fleet sails under the flags of Panama and Liberia. For a general
under bareboat charter to a California corporation and sub-chartered on a voyage charter to a British corporation. She had a capacity of 120,890 D.W.T. on winter marks and was carrying 119,328 D.W.T. of crude oil to Milford Haven in Wales from the Persian Gulf. Her dimensions were 974.5 feet in length, 69 feet in depth and 125.5 feet in width. Apparently feeling that nothing could be done to salvage the vessel or the cargo, British military aircraft bombed the wreck to sink her and burn out any remaining crude oil. Thereafter, thirty-five million gallons of crude oil spread along the coasts of Cornwall and crossed to Normandy and Brittany 225 miles away. The Board of Investigation appointed by the Liberian government concluded that the casualty was caused by human error and not by mechanical failure or defect. In view of the extensive litigation now pending in this case it would be inappropriate to use this incident as more than an illustration of the types of problems to be encountered. The liabilities among maritime


14. A bareboat charter (or demise) is used when the charterer, "takes over the ship, lock, stock and barrel, and mans her with his own people. He becomes, in effect, the owner pro hac vice, just as does the lessee of a house and lot . . . ." G. Gilmore & C. Black, The Law of Admiralty 171 (1957). Although the bareboat charter has not recently been common, except in government service, it is certainly not obsolete. 1 T. Carver, Carriage by Sea 264 (11th ed. R. Colinvaux 1963). It is now customarily found in the tanker trade where twenty year bareboat charters are not uncommon.

15. A voyage charter is used when "the ship is engaged to carry a full cargo on a single voyage. The vessel is manned and navigated by the owner . . . ." or the owner pro hac vice. G. Gilmore & C. Black, supra note 14, at 170.


18. The British Government has begun an action to recover clean-up costs amounting to eight million dollars against the vessel owners in Singapore and the French Government has begun an action in Rotterdam to recover clean-up costs of four million dollars; both actions were commenced by arrest of the Torrey Canyon's sister ship, the Lake Palourde. The vessel owners have petitioned to limit their liability in New York in accordance with 46 U.S.C. §§ 183-89 (1964). Petition of Barracuda Tanker Corp. and Union Oil Co., Civil No. 67-3621 (S.D.N.Y., filed Sept. 19, 1967). Motions to dismiss the charterer's petition and
industry interests such as the vessel owner, charterer or shipper are
determined by the existing maritime law, but the law is not
clearly established where persons outside the industry such as pier
owners, boat owners, beach owners and resort owners have been
damaged.

II. LIABILITIES WITHIN THE INDUSTRY

In maritime disasters of this type there are potential liabilities within
the maritime industry which are protected against by the almost uni-
versal practice of insurance. The cargo owning interest (shipper, con-
signee and cargo insurer) will have rights against the carrier interest
(the shipowner or the charterer) for loss or damage to cargo determined
in accordance with the law applicable to the bill of lading under which
the cargo was shipped. In international maritime commerce the appli-
cable law is "The Hague Rules of 1924," a multilateral convention for
the unification of rules relating to bills of lading which has been ratified
or adhered to by 41 nations including the maritime powers; in the
United States this convention has been substantially adopted in the
Carriage of Goods by Sea Act of 1936 (COGSA). Under the Act, the
carrier is not liable to cargo interests where the loss was caused by
negligent navigation, or by arrest or restraint of princes. For example,
extective action forbidding a vessel or cargo to enter a port, or the
destruction of the vessel and cargo by executive decision might both
be construed to come within the above exception. However, if the
questions regarding the constitution of the limitation fund are now in litigation. See In re

19. The owner insures the vessel herself against physical loss under a form known as the Hull Policy. The owner's potential liabilities to cargo owners, passengers and other third
parties are covered under P. & I. (Protection and Indemnity) policies while the cargo will
be insured, "as interest may appear" so that the actual owner of the cargo will be protected
regardless of the time when title passes. In the oil tanker industry it has been customary
for the great oil companies to be self insurers except for disasters over $1,000,000, accordingly,
opposition of the industry to proposals for compulsory pollution insurance can be anticipated,
however, it is the guarantee of financial responsibility which is essential, and it should be
possible to devise a system of guarantees acceptable to the industry and the coastal states.

20. The International Convention for the Unification of Certain Rules Relating to
Bills of Lading, signed at Brussels, on August 25, 1924, 51 Stat. 233 (1937), T.S. No. 931;
nations involved are Belgium, Denmark, Finland, France, Germany, Italy, Japan, Norway,
The Netherlands, Poland, Sweden, United Kingdom and United States.

21. 46 U.S.C. §§ 1300-15 (1964). The following discussion assumes the applicability of


damage occurred because of some unseaworthy condition on the vessel then the carrier would be liable unless he could meet the difficult burden of proving he had exercised due diligence to make the vessel seaworthy.\(^2\) Thus, a failure to provide the proper charts,\(^2\) or possibly an improper installation of the automatic pilot, might subject the carrier to liability for losses of cargo occurring at a grounding, whereas a simple navigational error by the master would not. If a loss of part of the cargo at the grounding is caused both by negligent navigation and an unseaworthy condition, the carrier has the almost impossible burden of apportioning the damage.\(^2\) Where the remaining portion of the cargo is lost after the grounding because of some other cause, such as aircraft bombardment, the carrier faces the additional problem of showing the reasonableness of his salvage attempts.

While under COGSA the carrier interest is protected against liability for loss caused by negligent management of the vessel by its servants,\(^2\) it has been very difficult to distinguish vessel management from the carrier’s duty to care for the cargo.\(^2\) Thus, postgrounding salvage efforts supervised by the carrier’s managing officials might arguably be considered as not within the scope of the statutory “management” exemption.\(^3\) The intervention of the top management personnel to supervise

\(^26.\) The W.W. Bruce, 94 F.2d 834, 1938 A.M.C. 232 (2d Cir. 1938); The Maria, 91 F.2d 819, 1937 A.M.C. 934 (4th Cir. 1937); cf. United States Steel Prod. Co. v. American & Foreign Ins. Co., 82 F.2d 752, 1936 A.M.C. 387 (2d Cir. 1936).
\(^27.\) Schnell v. The Vallescura, 293 U.S. 296 (1934).
\(^29.\) E.g., The Germanic, 196 U.S. 589 (1905); The Joseph J. Hock, 70 F.2d 259, 1934 A.M.C. 507 (2d Cir. 1934) (improper discharging procedure causing the vessel to be submerged thereby taking on salt water); Barr v. International Mercantile Marine Co., 29 F.2d 26 (2d Cir. 1928) (failure to care for refrigeration equipment and check temperatures in refrigerated spaces); W. T. Lockett Co. v. Cunard S.S. Co., 21 F.2d 191, 1927 A.M.C. 1057 (E.D.N.Y. 1927) (failure to close a cargo-ventilator in bad weather), have all resulted in shipowner liability for breach of duty to care for cargo. Contra, The Milwaukee Bridge, 26 F.2d 327, 1928 A.M.C. 1063 (2d Cir.), cert. denied, 278 U.S. 632 (1928) (failure to inspect cargo holds); The Indrani, 177 F. 914 (2d Cir. 1910) (improperly tipping a ship for hull examination causing the vessel to take on salt water); The Merida, 107 F. 146 (2d Cir. 1901) (failure to pump bilges), have not resulted in ship-owner liability because of the exemption for errors in management.
\(^30.\) May v. Hamburg—Amerikanische Packetfahrt Aktiengesellschaft, 290 U.S. 333 (1933). The vessel grounded near Bremen due to an error in navigation which damaged the ship’s rudder. After the grounding the owner’s technical representative ordered the rudder repairs to be postponed until the vessel arrived at her home port of Hamburg the next day. The vessel grounded again due to the defective rudder. The court held the owner was not entitled to the statutory exemption of negligent navigation or management for the second loss because the owner had taken control of the vessel in unseaworthy condition. Cf. Ravenscroft v. United States, 88 F.2d 418, 1937 A.M.C. 462 (2d Cir. 1937). Fire-fighting
rescue operations may also subject the shipowner to the risk of losing his right to limit liability since both the United States statute and the international convention deny protection to the shipowner where the loss has occurred with his "privity or knowledge." Under that language cargo claimants might argue that unsuccessful attempts to salvage vessel or cargo were the result of negligence of the shipowner's managing or operations personnel, with the consequence that the owner could not meet his burden of proving that the loss occurred without his privity or knowledge.

Limitation of shipowner's liability is an ancient right of a shipowner to cut losses from a marine disaster and thereby limit his liability to the ship, i.e., his investment in the venture in which many others (crew, cargo owners and passengers) have risked their lives and property. In the United Kingdom and the United States it is entirely a statutory right. Shipowning nations, except the United States, have joined in an international convention to attempt to codify the law. Thus, for losses

31. See note 75 infra.

32. 46 U.S.C. § 183(a) (1964) provides that the liability of the owner may be limited for "loss, damage, or forfeiture, done, occasioned, or incurred, without the privity or knowledge of such owner ... ." Art. 1 of the International Convention Relating to the Limitation of the Liability of Owners of Sea-Going Ships, Brussels, Oct. 10, 1957 provides for limitation of shipowners' liability "unless the occurrence giving rise to the claim resulted from the actual fault or privity of the owner." N. Singh, supra note 20, at 1058.

33. See In re Isbrandtsen Co., 201 F.2d 281, 1953 A.M.C. 86 (2d Cir. 1953).

34. A historical review of limitation may be found in the opinion of Mr. Justice Brown in The Main v. Williams, 152 U.S. 122 (1894). An indication of the Draconian nature of this law is seen in the case of The Vestris which foundered and sank during a violent storm on Nov. 12, 1928. Of the 324 passengers and crew on board, 213 were rescued. In its petition to limit liability the shipowner offered to surrender the seven lifeboats saved from the disaster together with the freights and passage money with a resulting fund of less than $100,000 available to satisfy cargo claims and wrongful death claims amounting to several million dollars. Later aspects of the disaster will be found in 53 F.2d 847 (S.D.N.Y. 1931). In 1934 the total loss of S.S. Morro Castle with 135 persons occurred. The possibility of a successful petition to limit liability to $20,000, the value of the freights, created a national outcry. Claims of $1,450,000 were eventually settled for $890,000. The Morro Castle, 1939 A.M.C. 895. As a result of this uproar Congress amended the statute in 1936 to provide for the minimum fund of $60 per ton for personal injury and death cases. 46 U.S.C. § 183(b) (1964). Other examples of limitation where the vessel was a total loss will be found in The Suduffco, 33 F.2d 775, 1929 A.M.C. 773 (S.D.N.Y. 1929); In re Statler, 31 F.2d 767, 1929 A.M.C. 234 (S.D.N.Y. 1929), aff'd, 36 F.2d 1021, 1930 A.M.C. 399 (2d Cir. 1930); The S.S. Hewitt, 284 F. 911, 1923 A.M.C. 89 (S.D.N.Y. 1922).

caused by negligent navigation the shipowner may limit his liability under United States' law to the value of his interest in the vessel and the pending freights after the loss. All affected by the disaster would share pro-rata in the value of the sunken wreck (zero) and the pending freights (possibly $200,000 for supertankers). Under an old, policy-based decision of the Supreme Court, the shipowner need not account for the value of his hull insurance to the claimants. In cases where there are personal injury as well as property damage claims arising out of the disaster, United States law requires a further fund computed on the basis of $60 per ton of the ship's "limitation tonnage." Thus, assuming no personal injury claims, the fund available for all claimants where there has been a total loss of a supertanker arising out of a single ship disaster will be as low as $200,000, if that were the amount of the pending freights. In case of a total loss of a vessel of dimensions similar to the Torrey Canyon there will be under existing British limitation law a fund of approximately $4,746,000 available for cargo owners and other property damage claimants. This fund is determined by multiplying the limitation tonnage figure (basically the deadweight tonnage of empty cargo spaces) by 1000 gold francs. The amount of

36. Norwich Co. v. Wright, 80 U.S. (13 Wall.) 104 (1871). In the Torrey Canyon, freight was payable at destination. Accordingly, the stipulated value of petitioners' interest was $50, value of the one remaining lifeboat.

37. 46 U.S.C. § 184 (1964); see Butler v. Boston & Savannah S.S. Co., 130 U.S. 527 (1889). Equitable principles, however, may be applied so that a plaintiff in a both-to-blame collision will be subordinated as a claimant to "innocent" cargo and personal injury claimants. The Mauch Chunk, 154 F. 182 (2d Cir.), cert. denied, 207 U.S. 586 (1907).

38. The City of Norwich, 118 U.S. 468 (1886). In a 5-4 decision the court held the "value of the interest of such owner in such vessel," 46 U.S.C. § 183(a) (1964), does not include the proceeds of the hull insurance.

39. 46 U.S.C. § 183(b) (1964). Limitation tonnage under American law is computed by deducting the crew spaces from the gross tonnage, 46 U.S.C. § 183(c) (1964), whereas under the International Convention, limitation tonnage is computed by adding engine room spaces to the net tonnage. International Convention, supra note 32, art. 3(7).

40. See Rice Growers Ass'n v. Rederiaktiebolaget Frode, 176 F.2d 401, 1949 A.M.C. 1761 (9th Cir.), cert. denied, 338 U.S. 878 (1949). In a multiple ship disaster the shipowner may be required to surrender the amount of his recovery in litigation from the other offending shipowners. See O'Brien v. Miller, 168 U.S. 287 (1897); Phillips v. Clyde S.S. Co., 17 F.2d 250, 1927 A.M.C. 341 (4th Cir. 1927).

41. Merchant Shipping Act, 1894, 57 & 58 Vict., c. 60, § 503, as amended by Merchant Shipping (Liability of Shipowners and Others) Act, 1958, 6 & 7 Eliz. 2, c. 62.

42. This figure is arrived at by estimating tonnage at approximately 59,000 tons, multi-
this limitation figure is one of the most vulnerable provisions of the
law; accordingly, it has been proposed that the limitation fund be based
upon the deadweight tonnage of the cargo so as to produce a much
larger fund.\footnote{43}

If a grounding occurred in the immediate vicinity of a ship’s intended
berth, the shipowner might be able to pass the loss on to the charterer
under an indemnification warranty by the charter party known as the
“Safe Port-Safe Berth Clause.”\footnote{44} However, in recent years, long term
charters in the tanker industry have not given this warranty, and thus
ultimate liability will remain with the shipowner in most cases. If a
voyage charterer or a time charterer were to be held liable there would
be no right of such charterer to limit liability since the statute gives
such privilege only to bareboat charterers.\footnote{45}

Between the cargo owner and the shipowner there are other rights
peculiar to maritime law known as the “General Average.” There is not
space here to do more than indicate that if the salvage had been success-
ful in the case of the \textit{Torrey Canyon} the shipowner might have argued
that the grounding was a common danger for ship, cargo, unearned
freights and crew, thereby entitling him to contribution from the cargo
owner for the expenses incurred in avoiding the imminent peril.\footnote{46} The
cargo owner might have claimed a right to contribution for the value
of oil jettisoned in attempting to free the ship from the ground.\footnote{47}
Liability incurred by the shipowner to third parties, such as pollution
damage claimants and salvors, may also be included within the owner's
general average claim.\footnote{48} However, except for special contract rights,
unsuccessful salvors have no claim against the shipowner.\footnote{49}

\footnotesize{\begin{itemize}
\item \textit{Park S.S. Co. v. Cities Serv. Oil Co.}, 188 F.2d 804, 1951 A.M.C. 851 (2d Cir.), cert.
\item The \textit{Jason}, 225 U.S. 52 (1912). The “Jason Clause” found in bills of lading provides
that cargo is to pay general average contribution even if the ship was at fault in the situation
creating the peril unless the shipowner had not provided a seaworthy vessel.
\item Lange \textit{v. George D. Emery Co.}, 18 F.2d 744, 1927 A.M.C. 844 (2d Cir.), cert.
denied, 275 U.S. 540 (1927); see The \textit{York-Antwerp Rules}, 1950, Rule II which states: “Damage
done to a ship and cargo, or either of them, by or in consequence of a sacrifice made for
the common safety . . . shall be made good as general average.”
\item R. Lowndes & G. Rudolf, \textit{General Average} 138 (8th ed. J. Donaldson & C. Ellis
1955).
\item G. Robinson, \textit{Admiralty} 711 (1939).
\end{itemize}}
Finally, it should be noted that inherently dangerous cargo would be liable in rem for damage done by it. Crude oil is not generally considered to be an inherently dangerous cargo under normal circumstances. Nevertheless, if any amount of oil cargo remained after the pollution, it might be possible for pollution damage claimants to fix liability on the cargo itself as well as the other maritime industry parties.

III. LIABILITY TO PARTIES OUTSIDE THE MARITIME INDUSTRY

The law is not so well settled when we come to the private law questions of oil pollution damage to beachfront owners, farmers of the sea bed, pier owners, resort owners and small boat owners. The law is at best uncertain with respect to the public law questions of the rights and liabilities of states in combating pollution. The uncertainties in this area of law are not the result of deliberate policy choice but are the results of historical accident. Therefore, a good case may be made for corrective international legislation to codify existing law (de lege lata) and develop more effective controls (de lege ferenda).

A. Remedy in Admiralty

It is likely that courts of admiralty, the courts in which maritime cases have traditionally, though not exclusively, been heard, would not have recognized up to two decades ago the existence of a maritime tort against a shipowner by a shore-front owner for oil pollution damage beyond the low water mark because of a narrow historical construction of the jurisdiction of admiralty courts. By the use of this medieval reasoning the United States Supreme Court, in the Plymouth case,


52. Whatever may have been the jurisdiction of the Admiral's Court in England before the 14th Century, it is apparent that a jealous construction of the statutes of 13 Rich. 2, c. 5 (1389) and 15 Rich. 2, c. 3 (1391) by the common law courts would have prevented a shore-front owner whose lands might have been affected by pollution from an off-shore vessel from obtaining a remedy in admiralty since "the thing was not done upon the sea." See De Lovio v. Boit, 7 F. Cas. 418, 441 (No. 3776) (D. Mass. 1815). The jurisdiction of the English Admiralty Court at the time of the American Revolution was limited to "things done upon the seas and not within the body of a county."

53. The Plymouth, 70 U.S. (3 Wall.) 20 (1866). In The Plymouth, sparks and flames from a burning steamship leaped to libellant's wharf setting the wharf and some warehouses on the wharf on fire. The wharfinger libelled The Plymouth, sister ship of the of-
fashioned a locality test stating that there is no maritime tort unless both the commission of the act and the consummation of the harm take place on navigable waters. This was held despite previous Supreme Court decisions holding that the jurisdiction of the federal admiralty courts extended to inland lakes and the navigable waters connecting them. Therefore, pollution damage upon navigable waters to vessels, maritime structures and shellfish beds would give rise to the admiralty remedy, whereas shorefront owners would have been remediless in admiralty because of the locality test. One significant consequence of this test encompassing all navigable waters is that American and English admiralty courts are not restrained from proceeding against offending vessels regardless of flag and regardless of the fact that the offending vessel may not have been in territorial waters at the time of the tort. Thus, if the restrictions of the locality test could be removed, the pollution claimant would find an effective remedy against any vessel causing pollution damage under the general maritime law.

This failure in admiralty jurisdiction was corrected in England in the nineteenth century before the decision in Plymouth and in the United States in 1948 by the Admiralty Extension Act. Thus the strict locality test is now replaced by a statutory grant of power: "The admiralty and maritime jurisdiction of the United States shall extend to and include all cases of damage or injury, to person or property, caused by a vessel on navigable water, notwithstanding that such damage or injury be done or consummated on land." Under this

56. 3 & 4 Vict., c. 65 (1840); 13 & 14 Vict., c. 26 (1850); 23 & 24 Vict., c. 88 (1860).
57. 46 U.S.C. § 740 (1964). Prior to the statute the Supreme Court had construed the Jones Act remedy for injured seamen to apply to a seaman on shore who received personal injuries from an object falling from the vessel. See O'Donnell v. Great Lakes Dredge and Dock Co., 318 U.S. 36 (1943). Note, however, that the Jones Act remedy may be brought in admiralty only in personam and not in rem. Pianals v. The Pinar del Rio, 271 U.S. 33 (1926).
statute, owners of small boats, shore structures, cables and oyster beds have recovered for damage caused by vessels. The maritime tort for oil pollution requires proof of negligence or at least proof of some unseaworthy condition in order to impose liability on the shipowner, and such liability is a liability of the shipowner and not the cargo owner.

An example of a successful action by pollution claimants is the litigation involving a careless spill of 2,000 barrels of heating oil into the harbor of New Haven, Connecticut. The oil spill occurred when the pumpman of a barge of heating oil fell asleep and allowed the oil to overflow while the barge was discharging alongside a pier. The oil spill spread 1/4 mile north and south of the pier, extending out some 75 feet from shore. The respondent spent $6,000 on detergents to clean up the oil, but the lingering effects of the pollution were felt for the next four years. The properties of 155 beachfront owners were affected. Confronted by the possibility of an enormous financial loss, the barge owner petitioned for limitation of liability. In accordance with admiralty practice, a commissioner was appointed to hear the evidence on damages. The beachfront owners' claims had been largely determined by a simple formula to compensate for loss of use of riparian rights and annoyance. The commissioner rejected the formula approach and made his awards

66. An amendment to the Limitation of Liability Act in 1884 (23 Stat. 57, § 18) now 46 U.S.C. § 189 (1964) has been construed to mean that shipowners are thereby enabled to petition for limitation of liability against non-maritime claims. See Richardson v. Harmon, 222 U.S. 96 (1911); In re Pennsylvania R.R., 48 F.2d 559, 1931 A.M.C. 852 (2d Cir.), cert. denied, 284 U.S. 640 (1931).
67. The formula was based on estimations of real estate brokers as to land values and on evidence of recent sale prices; $8.00 per front foot for summer cottages and $12.00 per front foot for year-round houses were the figures offered by the claimants.
on the basis of evidence of out-of-pocket expenses, to which was added a sum for inconvenience, annoyance and discomfort.88 Proof of the costs of cleaning, repainting, new seeding and decreases in property values was required with the result that the commissioner actually awarded $54,423.93 compared to a claimed amount of $603,612.27.

An example of an unsuccessful action by pollution claimants occurred when they alleged that extensive damages had been done to small boats moored at a yacht basin by oil pumped out of ships' bilges.89 The recovery for the 44 claimants was reversed for failure of evidence because they were unable to identify the exact polluter, a proof-difficulty especially onerous to claimants residing near busy shipping lanes.

However, if there is pollution damage for which negligence cannot be proven but for which some defect in a ship’s equipment was responsible, the shipowner would probably be held liable under the traditional unseaworthiness doctrine of maritime law.70 This doctrine is similar to that of strict liability; the shipowner may avoid it only by proving that the mechanical defect which produced the oil pollution was itself the result of an “Act of God,” i.e., extraordinary storm or unexpectable peril of the sea.71 The possibility of this maritime remedy was foreseen in a

68. The commissioner took as evidence of inconvenience the decrease in swimming, sunbathing, fishing, boating and picnicking and loss of aesthetic value.
71. 362 U.S. at 550: "What has been said is not to suggest that the owner is obligated to furnish an accident-free ship. The duty is absolute, but it is a duty only to furnish a vessel and appurtenances reasonably fit for their intended use. The standard is not perfection, but reasonable fitness; not a ship that will weather every conceivable storm or withstand every imaginable peril of the sea, but a vessel reasonably suitable for her intended service."
leading English case,\(^{72}\) and it may be predicted with confidence that, if the issue were to be squarely presented, a pollution claimant would be allowed to recover on unseaworthiness grounds in the absence of proof of negligence. If the shipowner is held liable because of unseaworthiness he may have an action over against the manufacturer of the defective equipment,\(^{73}\) and the pollution claimant might also proceed directly against the manufacturer on a product-liability theory.\(^{74}\) However, the shipowner would not be liable where a seaworthy vessel encountered an extraordinary peril which resulted in a non-deliberate and non-negligent


\(^{73}\) Impleader actions in admiralty under former Supreme Court Admiralty Rule 56 (now Fed. R. Civ. P. Rule 14(C)) have been permitted since 1883. Actions in admiralty over against manufacturers of defective equipment by shipowner users have held the manufacturer liable for physical injury or property damages. See In re Sandra & Dennis Fishing Corp., 227 F. Supp. 620, 1964 A.M.C. 923 (D. Mass. 1964); Hill v. George Engine Co., 190 F. Supp. 417, 1961 A.M.C. 271 (E.D. La. 1961). See also Dunbar v. Henry Dubols Sons Co., 275 F.2d 304, 1960 A.M.C. 1393 (2d Cir. 1960). Extensive use of indemnification is made in cases of injuries to longshoremen. The longshoreman-plaintiff can recover directly from his employer, the stevedore, only under the Longshoreman & Harbor Workers Compensation Act, 33 U.S.C. § 901 et seq. (1964). He may also recover from the shipowner on the basis of an unseaworthy condition on the vessel, but the shipowner will have a right to indemnification by the stevedore for breach of warranty of workmanlike service if the unseaworthy condition was created by the stevedore's employees. See Italia Societa v. Oregon Stevedoring Co., 376 U.S. 315 (1964); Crumady v. The J.H. Fisser, 358 U.S. 423 (1959); Weyerhaeuser S.S. Co. v. Nacirema Operating Co., 355 U.S. 563 (1958); Ryan Stevedoring Co. v. Pan Atlantic S.S. Corp., 350 U.S. 124 (1956).

pollution of the shoreline. Limitation of shipowner's liability might be available for a negligent spill, but in cases of spills caused by an unseaworthy condition there would be no limitation of liability since the owner would be unable to meet his statutory burden of proving that any unseaworthy condition occurred without his privity or knowledge.\(^{75}\) Under this approach, the burden of proof to establish negligence or an unseaworthy condition would remain on the plaintiff while the burden of proving entitlement to limitation would lie upon shipowner.\(^{76}\)

Since oil pollution damage is classified as a maritime tort, the law gives to the maritime claimant a procedural remedy not found in the land law by way of the maritime lien.\(^{77}\) In admiralty practice, a maritime lien gives the claimant the right to proceed by in rem process against the offending vessel herself wherever she may be found.\(^{78}\) If the offending vessel is no longer in existence, the claimant may bring the proceeding in personam against a "sister ship," i.e., a ship under the same corporate ownership.\(^{79}\) Other systems of law do not recognize in rem process and an attempt to codify this procedure by means of an international convention is as yet unfruitful.\(^{80}\)

B. Remedy in the Civil Courts

At common law the landowner's right to be free from pollution was developed first through the writ of trespass *quare clausum fregit* for a direct invasion, then subsequently and simultaneously by the writ of case during a period in which the law experimented with both strict liability and fault liability. At the same time, while law courts provided the legal remedy of damages, courts of equity granted the equitable relief of injunction against the polluter.

An argument might be made that the creation of the general maritime law remedy for pollution would preclude exercise of common law

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77. The Anaces, 93 F. 240 (4th Cir. 1899).


79. Fed. R. Civ. P. Rule B.

80. International Convention Relating to the Arrest of Seagoing Ships, Brussels, May 10, 1952. See 6 E. Benedict, supra note 35, at 9; N. Singh, supra note 20, at 1126. There are few ratifications as yet, but Belgium, France, Great Britain, Spain and Portugal are the maritime nations which have ratified it to date.
remedies. However, because of the peculiar history of the locality test in admiralty, it is problematic whether this argument could be successfully advanced today. Practically speaking, the differences between the existing remedies at law and in admiralty are significant only on such questions as the defense of contributory negligence. To test the present validity of the supremacy of the uniform general maritime law, a sharp conflict between state and federal power would seem to be required. Thus, assuming no change in federal law, if a state were to enact a statute imposing absolute liability on oil polluters, it could not be argued in its defense that such statute merely supplemented the general maritime law and did not contradict it, therefore the statute would fail.

1. Trespass and Negligence

The principle that every unauthorized, unintended, non-negligent entry upon the soil of another is actionable lies behind the historic writ of trespass quare clausum fregit. The rigor of the ancient strict trespass doctrine is scarcely to be found today, although many jurisdictions have merely tempered it by requiring proof of extensive damage, an extra

81. The “Saving to Suitors Clause” in the Federal Judiciary Act of 1789, § 9, 1 Stat. 77, provided that the federal courts were to have exclusive original cognizance of all civil causes of admiralty and maritime jurisdiction “saving to suitors, in all cases, the right of a common law remedy, where the common law is competent to give it.” During the period when there was no maritime tort of oil pollution for landowners due to the locality test (see note 53 supra) the Supreme Court formulated the doctrine of the supremacy of the uniform federal maritime law to frustrate state action with respect to personal injuries of maritime workers. See Chelentis v. Luckenback S.S. Co., 247 U.S. 372 (1918); Southern Pacific Co. v. Jensen, 244 U.S. 205 (1917). By this doctrine rules of the general maritime law could displace common law rules in actions brought under the savings to suitors clause in common law courts and this general maritime law could not be impaired by state decisional law. See Kermarec v. Compagnie General Transatlantique, 358 U.S. 625 (1959); Garret v. Moore-McCormack Co., 317 U.S. 239 (1942). However since the 1948 extension of admiralty jurisdiction there has been a reconsideration of the scope of the general maritime law to restrict it. See Wilburn Boat Co. v. Fireman's Fund Ins. Co., 348 U.S. 310 (1955) Maryland Cas. Co. v. Cushing, 347 U.S. 409 (1954); cf. Davis v. City of Jacksonville Beach, 251 F. Supp. 327, 1966 A.M.C. 1231 (M.D. Fla. 1965) (admiralty jurisdiction over a surfboard).

82. With eight exceptions (Ark., Ga., Ill., Me., Miss., Nebr., S.D., and Wisc.) the state courts continue to follow the doctrine of contributory negligence which provides a complete defense in tort actions, whereas admiralty has always applied comparative negligence. See Pope & Talbot Inc. v. Hawn, 346 U.S. 406 (1953); The Max Morris, 137 U.S. 1 (1890). In mutual fault collisions in admiralty, however, the damages are divided equally. See The Schooner Catharine v. Dickinson, 58 U.S. (16 How.) 170 (1854); cf. Paterson & Sons Ltd. v. City of Chicago, 324 F.2d 254, 963 A.M.C. 2471 (7th Cir. 1963).

hazardous activity or an intent demonstrated by a volitional act.\textsuperscript{64} It has been replaced by fault liability in England and many other jurisdictions.\textsuperscript{65} Of course, the differences between trespass and case may yet haunt the practitioner in a common law jurisdiction, but pollution damage to beachfront, oyster beds, piers and small boats would probably fall under the writ of trespass because of the direct invasion, whereas resort owners and others who do not suffer a direct invasion must rely on a remedy by the writ of case for indirect injuries which, under the modern form, requires proof of actual damage and negligence. While there are some authorities permitting ocean pollution claimants to recover on a trespass theory,\textsuperscript{66} there is no good reason for preserving this historic remedy today. If a liability without fault is to be imposed on polluters, let it come as a reasoned policy choice rather than as a historical curiosity. Thus, it seems clear that the principal remedy for the pollution claimant is an action for damages based on negligence, as demonstrated by a policy-based decision of the Rhode Island Supreme Court.\textsuperscript{87} In that case the court, in the absence of proof of negligence,

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  \item[85.] W. Prosser, supra note 83, at 64-65.
refused to extend the trespass doctrine to pollution damage of a well and stream by percolation of underground waters polluted by petroleum products at the defendant's adjoining refinery.

Defendant's refinery is located at the head of Narragansett Bay, a natural waterway for commerce. This plant is situated in the heart of a region highly developed industrially. Here it prepares for use and distributes a product which has become one of the prime necessities of modern life. It is an unavoidable incident of the growth of population and its segregation in restricted areas that individual rights recognized in a sparsely settled state have to be surrendered for the benefit of the community as it develops and expands. If, in the process of refining petroleum, injury is occasioned to those in the vicinity, not through negligence or lack of skill or the invasion of a recognized legal right, but by contamination of percolating waters whose courses are not known, we think that public policy justifies a determination that such harm is damnum absque injuria.88

This requirement of proof of negligence at common law is re-enforced by the consideration given the problem by the House of Lords in the important 1956 case of Esso Petroleum Ltd. v. Southport Corp.89 In that case, defendant's tanker had grounded at the River Ribble near Liverpool. In order to save the ship, the master jettisoned 400 tons of fuel oil which was carried by wind and tide onto plaintiff's beach. The suit was brought at law based on trespass, nuisance and negligence, alleging negligent navigation with an unnecessary jettisoning. The court found trespass and nuisance to be inapplicable and, in view of the finding that the master had not been negligent in jettisoning the oil, the court relieved the shipowner of liability in negligence. The result of this decision is that, in England, proof of negligence is required to obtain recovery for oil pollution damage. The trial court indicated that the plaintiffs might have recovered under the admiralty doctrine of unseaworthiness if they had alleged and proved that the grounding was due to a faulty steering gear which rendered the vessel unseaworthy, thus shifting to the defendant the heavy burden of showing that the unseaworthy condition was caused by some "Act of God."90


88. 54 R.I. at 416.
90. Id. It might be noted in passing that judgment in Queen's Bench was by Lord Devlin who subsequently became Lord of Appeal in Ordinary and is the person to whom the Preliminary Report of the International Subcommittee (see note 17 supra) is attributed. One of the significant recommendations of this report is an absolute liability of shipowners with compulsory insurance and a limitation fund based on the deadweight tonnage of the cargo.
In establishing the elements of a negligence cause of action, the claimant who suffers pollution damage other than by fouling may be confronted with serious difficulties in proving the existence of legal or proximate cause. This can be best shown by examining the famous case of *The Wagon Mound.* Defendant’s vessel negligently discharged furnace oil while moored in Sydney Harbor. The oil spread across the harbor to plaintiff’s ship repair facility, fouled the slipways and was set on fire by contact with hot metal from welding operations at the repair facility; the fire then damaged plaintiff’s wharf and two ships docked there for repairs. Plaintiff sued in negligence and nuisance and recovered judgment, principally on the authority of *In re Polemis* which stood for the proposition that defendant’s creation of a condition dangerous to someone will justify imposition of liability for unforeseeable consequences directly produced by the dangerous condition. The Judicial Committee of the Privy Council used *The Wagon Mound* as the vehicle for discarding *Polemis* and affirming the doctrine that only foreseeable harm is recoverable in negligence, by which plaintiff would recover only for pollution damage (minimal here) and not for the fire damage. Thereafter the owners of the damaged vessels sued defendant in negligence and nuisance. The negligence count was dismissed in view of the earlier holding that the fire damage was unforeseeable but the nuisance

91. Traditionally stated as: (1) duty, (2) breach, (3) cause, and (4) damages. See Restatement (Second) of Torts § 281 (1965).

92. The following discussion assumes plaintiff will be able to establish factual causation. See e.g., Continental Oil Co. v. Hinton, 253 Miss. 233, 175 So. 2d 512 (1965); Sunray Mid-Continental Oil Co. v. Tisdale, 366 P.2d 614 (Okla. 1961). A minor classic in this genre may be the attempt to impose liability on the government under the Federal Tort Claims Act for destruction of fish occurring after revenue agents blew up an illegal still causing sour mash to flow into the water. Liability was denied after there was proof that sour mash had been flowing into the stream for some time due to the ordinary operation of the still before discovery by the federal agents. See Cauley v. United States, 242 F. Supp. 866 (E.D.N.C. 1965).


94. *In re Polemis & Furness, Withy & Co.,* [1921] 3 K.B. 560. A plank fell into the hold of a ship apparently causing a spark which ignited petroleum fumes in the hold causing eventual destruction of both ship and cargo. Since the falling of the plank would be dangerous to cargo (crushing danger) or seamen (striking danger) the arbitrator found for claimants since the fire damages directly flowed from the negligent act.

count was sustained. However, on appeal, the Privy Council took a different view of the evidence and found that the fire damage was reasonably foreseeable so that defendant would be liable in both negligence and nuisance, following the view that plaintiff may recover where the fact of injury is foreseeable although the exact manner of injury is not. Thus, in negligence, the plaintiff must prove the foreseeability of injury whereas in cases of strict or absolute liability he need only prove the fact and cause of injury. However, the effect of the reasonable foreseeability doctrine is felt even in cases of strict liability since the courts hold that liability is confined to consequences within the extraordinary risk giving rise to strict liability.

The law is even more uncertain with respect to recovery by innkeepers and restaurant owners. It is likely that they cannot recover from the merely negligent shipowner for loss of profits due to cancellations by tourists who do not choose to spend their vacations at polluted beach resorts. The legal principle is that there can be no liability for a negligent interference with contractual rights. The policy arguments behind this are that this risk of pecuniary loss could not be foreseen by a negligent defendant, whereas risks of property damage and physical injury might well be foreseen and that proof of lost profits would be too speculative. However, many courts now allow proof of lost profits in circum-

96. See also In re Kinsman Transit Co., 338 F.2d 708, 1964 A.M.C. 2503 (2d Cir. 1964); Hughes v. Lord Advocate, [1963] A.C. 837.
97. Foster v. Preston Mill Co., 44 Wash. 2d 440, 268 P.2d 645 (1954) (defendant blaster was held not liable for loss suffered by a mink farmer when the mother minks, frightened by blasting operations, killed their young). See also Gronn v. Rogers Constr., Inc., 221 Ore. 226, 350 P.2d 1086 (1960).
99. In Robins Dry Dock & Repair Co. v. Flint, 275 U.S. 303 (1927) a major dry-dock facility was not liable to the time charterer of a tramp steamer for damage to the ship causing delay in returning the ship to service (i.e., go "on hire") since, "petitioner seems to have had no notice of the charter party until the delay had begun." Id. at 307. The fact that such a steamer is under some form of charter party would be obvious to the repairer, but the court seems to require actual knowledge of the charterer and the terms of the charter party, but Holmes' closing shot may well explain the opinion, "The law does not spread its protection so far." Id. at 309. See Note, Foreseeability of Third-Party Economic Injuries—A Problem in Analysis, 20 U. Chi. L. Rev. 283 (1953).
100. Generally, fishermen may not recover for loss of prospective catches caused by damage to the fishing boat. The Menominee, 125 F. 530 (E.D.N.Y. 1903); see R. Marsden, The Law of Collisions at Sea 362-63 (11th ed. 1961).
stances where it was formerly denied if the plaintiff can prove the loss to have been proximately caused by the defendant regardless of the speculative nature of the proof.\footnote{101}{See Carbone v. Ursich, 209 F.2d 178, 1954 A.M.C. 169 (9th Cir. 1953) where fishermen "on lays" (i.e., shares) recovered damages for loss of prospective catch.}

Where the hotelkeeper is the owner of a beachfront resort which suffers pollution damage, he will be in a stronger position, not because of logic but because of history. He may successfully argue that a loss from cancellations was merely consequential to the writ of trespass or case for property damage.\footnote{102}{Small v. United States, 333 F.2d 702 (3d Cir. 1964).} However, where the hotelkeeper or restaurant owner does not have a beachfront he will be faced with the difficult burden of showing that the loss from cancellations was proximately caused by the grounding or collision. The scope of present laws and conventions has been narrowly drawn to exclude reference to those who do not suffer property damage or physical injury as the result of pollution. There have been no proposals to change the traditional legal rules with respect to remote and unlikely damage. Thus, the present uncertainty as regards hotelkeepers may continue, though the scope of any new pollution convention or statute should be broad enough to protect all those whose livelihood is dependent on the maritime environment and should leave for future litigation the questions of remoteness and proximate cause.

Where the pollution comes from several sources, recovery may also be barred by the doctrine of concurrent causation. This doctrine holds that where several polluters, acting independently, discharge pollutants into a stream simultaneously and at different places, the claimants must sue each polluter separately and must allege the correct proportion which the defendant contributed to the total damage. Only if the damage is caused by polluters acting jointly or "in concert" may they be joined in one action.\footnote{103}{Griffith v. Kerrigan, 109 Cal. App. 2d 637, 241 P.2d 296 (1952); Chipman v. Palmer, 77 N.Y. 51 (1879); Tidal Oil Co. v. Pease, 153 Okla. 137, 5 P.2d 389 (1931); Panther Coal Co. v. Looney, 185 Va. 758, 40 S.E.2d 298 (1946); Farley v. Crystal Coal & Coke Co., 83 W. Va. 595, 102 S.E. 265 (1920). But cf. Cities Serv. Oil Co., v. Merritt, 332 P.2d 677 (Okla. 1958); Phillips Petroleum Co. v. Vandergriff, 190 Okla. 280, 122 P.2d 1020 (1942); Northup v. Eakes, 72 Okla. 65, 178 P. 266 (1918); Landers v. East Tex. Salt Water Disposal Co., 151 Tex. 251, 248 S.W.2d 731 (1952); Robillard v. Selah-Moxee Irrigation Dist., 54 Wash. 2d 582, 343 P.2d 565 (1959).} This doctrine has at times been relaxed by not requiring apportionment where the task would be impossibly difficult and the damage can be characterized as an indivisible injury.\footnote{104}{See Landers v. East Tex. Salt Water Disposal Co., 151 Tex. 251, 248 S.W.2d 731 (1952).} by reducing the...
quantity and quality of proof on apportionment,\textsuperscript{105} or by reversing the burden of proof completely.\textsuperscript{106} The concurrent causation rule resulted from an absence of a means to enforce contribution,\textsuperscript{107} which absence may no longer exist under modern code pleading.\textsuperscript{108}

Since the existing liability requires proof of negligence, it is appropriate to consider the possibility of imposing strict or absolute liability and its near relation, the doctrine of res ipsa loquitur. Strict liability can be considered merely a device for shifting the burden of proof from the injured plaintiff to the defendant, and, as such, it is familiar to civil law systems of jurisprudence as well as to common law.\textsuperscript{109} The early common law imposed liability without fault under the writ of trespass in many

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\item \textsuperscript{105} See Little Schuylkill Navigation, R.R. \& Coal Co. v. Richards' Adm'r, 57 Pa. 142 (1868).
\item \textsuperscript{106} See Phillips Petroleum Co. v. Harder, 189 F.2d 205 (5th Cir. 1951).
\item \textsuperscript{107} Chipman v. Palmer, 77 N.Y. 51 (1879). See also Annot., 5 A.L.R. 2d 98 (1949).
\item \textsuperscript{108} At common law there was no right to contribution among joint tortfeasors. W. Prosser, supra note 83, at 273. But the common law rule has been changed in many jurisdictions. See Note, Adjusting Losses Among Joint Tortfeasors in Vehicular Collision Cases, 68 Yale L.J. 964 (1959), and there is now the Uniform Contribution Among Tortfeasors Act, 9 U.L.A. 230 prepared by the Commissioners on Uniform State Laws. Apparently 27 of the states allow contribution in some form. In admiralty contribution among joint tortfeasors has always been allowed, at least in collisions. Halcyon Lines v. Haenn Ship Ceiling & Refitting Corp., 342 U.S. 282 (1952); cf. Erie R.R. v. Erie & W. Transp. Co., 204 U.S. 220 (1907).
\item \textsuperscript{109} The enigmatic language of the half-dozen articles in the Napoleonic Code on delictual responsibility comes out of the same pre-industrial society as that in England which formulated the unholy trinity of defenses to protect small shopkeepers (i.e., the defenses of contributory negligence, assumption of risk, and the fellow servant rule). However, the meaning of the statutory language has shifted from a defense-centered fault liability similar to that which exists at common law to a plaintiff-centered presumption of fault. Thus Article 1384 of the French Civil Code, C. Civ. art. 1384 (66e ed. Petits Codes Dalloz 1967), makes the defendant responsible for the acts of things which he has in his care, accordingly aviation disasters, automobile accidents, ship collisions, and product liability cases are within the reach of the statutory language, the only defense being force majeure, an unforeseeable and unavoidable break in causation. The tendency in the industrial accident law of civil law legal systems, especially those derived from the Napoleonic Code, is for industrial accident insurance to protect employees and a plaintiff-centered strict liability to protect non-employees. An absolute liability not subject to the defense of force majeure applies in aviation cases. See F. Lawson, Negligence in the Civil Law 43-50 (1962); H. Yetema, Civil Law in the Modern World 68-75. (A. Yannopoulos ed. 1965). Another vital aspect of civil law procedure is the joinder of civil and criminal actions in cases of fault, i.e., intentional or negligent torts under Article 1382 so that the finding of guilt in such a penal proceeding results simultaneously in civil damages. This proceeding is not appropriate for strict liability under Article 1384 because it is a liability without fault and acquittal in the criminal proceeding will not preclude a civil action in strict liability. In Latin American states there may be simultaneous criminal and civil actions in cases of strict liability, thus an action for oil pollution damage may be commenced initially as a criminal prosecution of the master.
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situations, and, even when courts and writers were stressing the fault nature of liability, there was liability without fault in case of ownership of wild animals, fire from extra—hazardous activity, and enterprise liability imposed for reasons of social policy on abnormally dangerous activities. Industrial societies such as the United States, the British Commonwealth, Continental Europe, Japan and the Soviet Union, have found it necessary at times to impose strict or absolute liability on an enterprise (usually a new industry) because of the great risk to society even though the industry may be socially desirable and economically productive and even though all known precautions are observed.

In the transportation industry liability has shifted from strict liability to fault liability and from fault liability, depending on an inference of negligence (res ipsa loquitur), to an absolute liability. These shifts in the nature of the liability have been affected by community acceptance, the magnitude of the risk, and the availability of insurance. In human terms, however, this may result in a risk allocation to those least able to bear the loss in order to protect an expanding industry. It is open to question whether this was ever a conscious policy consideration. Another element of transportation industry liability is the pervasive effect of the traditional duty of care owed to passengers by common carriers. Liability differs depending on whether the plaintiff is a passenger, shipper or a third party. Generally, the common carrier's liability to the passenger is, in effect, strict liability; and, as to maritime shippers, as previously
discussed, the carrier's liability depends upon contract, statute, and convention. Analogous to the third-party problem now confronting the oil tanker industry is the experience of the aviation industry with ground damage suits. Initially, under the writ of trespass *quare clausum fregit* there was strict trespass liability.\(^{115}\) Early in the twentieth century the aircraft operator was held strictly liable for ground damage under the Restatement of Torts as well as the Uniform Aeronautics Act.\(^{110}\) Some recent decisions, however, have not imposed strict liability\(^{117}\) and the Uniform Act has been withdrawn,\(^{118}\) but on the international level the International Civil Aviation Organization has prepared an international convention for ground damage by aircraft which provides for an absolute liability of the aircraft owner.\(^{116}\)

Absolute liability might also be imposed upon oil carriers through the
theory of enterprise liability. In England enterprise liability began with *Rylands v. Fletcher*\(^{120}\) and now attaches to the escape of inherently dangerous substances.\(^{121}\) In the United States, enterprise liability has been attached to blasting, storage of explosives, pile driving, storage of inflammables, fumigation, refineries, and water reservoirs.\(^{122}\) An extension of the principle of absolute liability to the hazards of atomic operations has recently become effective in Europe,\(^{123}\) and there is a proposed treaty to extend absolute liability to hazards from the operation of nuclear vessels.\(^{124}\) The latter treaty fixes such liability on the operator of a nuclear ship so that, in case of collision with a conventionally powered vessel, or even a sole fault collision caused by the conventionally powered vessel, liability will rest on the nuclear entrepreneur.\(^{125}\)

To illustrate the differences between the theories of absolute liability, strict liability, and negligence, it is helpful to consider two possible defenses which might be raised by a shipowner in oil pollution cases: collision and wind or wave action. If there is absolute liability neither defense will suffice. If there is strict liability only such wind or wave action as would be the result of an “Act of God” such as hurricane or tidal wave, and only a collision for which the other colliding vessel was solely responsible would suffice as defenses. If there is fault liability only such wind or wave action as would be beyond ordinary human foresight.

\(^{120}\) L.R. 1 Ex. 265 (1866), affd, L.R. 3 H.L. 330 (1868).


\(^{122}\) Id. at 523-32.

\(^{123}\) O.E.E.C. Convention on Third Party Liability in the field of Nuclear Energy, July 29, 1960. Vienna Protocol, 1963, effective Apr. 1, 1968. Among the other provisions of the treaty is a requirement for compulsory insurance and a single forum at the place of the incident to deal with all proceedings, a limitation on the total amount of liability of $15,000,000, and a time bar on claims set at 10 years following the incident. See Cigoj, International Regulation of Civil Liability for Nuclear Risk, 14 Int'l & Comp. L.Q. 809 (1965).

\(^{124}\) Convention on the Liability of Operators of Nuclear Ships, May 25, 1962. N. Singh, supra note 20, at 1071. See Konz, The 1962 Brussels Convention on the Liability of Operators of Nuclear Ships, 57 Am. J. Int'l L. 100 (1963) and Hardy, The Liability of Operators of Nuclear Ships, 12 Int'l & Comp. L.Q. 778 (1963). A basic element in this treaty is the recognition that the operators of such vessels will be states with the financial resources to stand behind any nuclear accident. The treaty will not be in effect until ratified by a state licensing the operation of nuclear vessels (Art. XXIV). Neither the United States nor the Soviet Union has ratified it yet. The limit on liability is $100,000,000 (Art. V) and there is provision for a single forum (Art. XI) and direct action against the insurer (Art. VIII). The United States fixed the maximum limit of governmental liability for all injuries resulting from a nuclear or atomic disaster at $500,000,000. 42 U.S.C. § 2210(d) (1964).

\(^{125}\) See Hardy, supra note 124, at 781-82.
and such collision for which the other colliding vessel was solely responsible would suffice as defenses.\textsuperscript{126}

2. Res Ipsa Loquitur

*Res ipsa loquitur* is the name given to a method of establishing plaintiff's case in circumstances where the plaintiff would have difficulty in obtaining evidence because control of the sources of evidence is in the hands of the defendant. It sets up a series of inferences which the fact finder may accept but it does not compel a finding for the plaintiff as would be the case with absolute liability.\textsuperscript{127} As a general proposition, the plaintiff will be allowed to submit his case to the jury under *res ipsa loquitur*: (a) where plaintiff's injury has been caused by an instrumentality within the exclusive control of the defendant; (b) where under the circumstances the injury would not have occurred without negligence on the part of someone in control of the instrumentality; and (c) where the plaintiff was not contributorily negligent.\textsuperscript{128} Based upon the fact of plaintiff's injury and the inference of defendant's negligence, the jury may then find for the plaintiff unless the defendant can overcome the inference of negligence by proof of an "Act of God" defense or contributory negligence. A Texas case illustrates the problem in the use of *res ipsa loquitur* by pollution claimants.\textsuperscript{129} Shortly after defendant blasted some test holes, plaintiff's well water became polluted. Plaintiff's

\textsuperscript{126} See note 194 infra. Another question is whether a defendant shipowner can argue, defending a strict liability arising under the General Maritime Law or the criminal statute, that there can be no strict liability because the United States has ratified the International Convention with its relaxed standards of fault liability, and the treaty provision takes precedence over municipal law. However, the Convention is not self-executing, and the statute enacted subsequent to United States ratification (33 U.S.C. §§ 1001-15 (1964), as amended 80 Stat. 372) specifically provides that, "Nothing in this chapter or in regulations issued hereunder shall be construed to modify or amend the provisions of the Oil Pollution Act, 1924. . . ." 33 U.S.C. § 1014 (1964). The 1924 statute provided that, "Sections 431-436 of this title shall be in addition to the laws existing prior to June 7, 1924, for the preservation and protection of navigable waters and shall not be construed as repealing, modifying, or in any manner affecting the provisions of those laws." 33 U.S.C. § 437 (1964), as amended 80 Stat. 1254.


expert testified that defendant's test explosion was possibly the cause of the pollution. The court's refusal to apply res ipsa loquitur was sustained in view of the fact that there was no other damage concurrent with defendant's blasting and no proof that the well would not have otherwise become polluted. Res ipsa loquitur might thus be an appropriate remedy for owners of unoccupied beachfront property, but claimants not in such a position may not be able to persuade courts that their property could not otherwise have become polluted, diminishing the applicability of the remedy.

It is apparent then that both strict or absolute liability and the doctrine of res ipsa loquitur affect the quantity of proof required of the plaintiff, and res ipsa loquitur may eventually disappear with other legal fictions to be replaced by strict liability wherever industrial enterprises are concerned.

3. Injunction

An effective remedy where oil pollution causes continuing damage is the equitable remedy of an injunction to abate a private nuisance. An injunction would not be appropriate in the case of a single act of pollution; and an injunction together with damages for permanent destruction of plaintiff's property would be disapproved as inconsistent. The injured plaintiff's difficulty with injunctions, of course, is the weighing process whereby the interests of the plaintiff are compared with the reasonableness and social utility of the defendant's conduct. Thus, an injunction might not be granted against an oil refinery nor against vessels proceeding to such refinery. Nevertheless, those seeking to preserve the maritime environment cannot ignore the possibility of effective social engineering through the injunctive process to force non-disaster polluters to adopt corrective measures.

132. Madison v. Ducktown Sulphur, Copper & Iron Co., 113 Tenn. 331, 83 S.W. 658 (1904) where the court refused an injunction which would have closed the town's principal manufacturing establishment (worth $2,000,000) despite the fact that plaintiff's land (worth $1000) was rendered worthless. Kugel v. Village of Brookfield, 322 Ill. App. 349, 54 N.E.2d 92 (1944); Meeker v. City of East Orange, 77 N.J.L. 623, 74 A. 379 (1909). See also Annot., 46 A.L.R. 8 (1927).
IV. CRIMINAL PENALTIES AND STATUTORY ACTIONS

Supreme Court has recently sustained a criminal prosecution for oil pollution under the terms of this statute, and enforcement officers of the Coast Guard use this strong statute rather than the weaker Federal Water Pollution Control Act as amended in 1966 to combat oil pollution. Oil pollution was not specifically outlawed until Congress enacted the Oil Pollution Act of 1924. The 1924 Act regulated only the navigable waters of the United States—coastal and inland—within United

Inc. v. City of Duluth, 154 F.2d 205 (8th Cir. 1946). The statute forbids the discharge of refuse matter of any kind or description into a navigable water in its first part. The word “refuse,” however, had been defined as “rejected, thrown aside or left as worthless,” United States v. The Devalle, 45 F. Supp. 746 (E.D. La. 1942) but the broad definition given in United States v. Standard Oil Co., 384 U.S. 224 (1966) includes all foreign substances and pollutants apart from sewage, etc. which was specifically excepted. United States v. Ballard Oil Co., 195 F.2d 369, 1952 A.M.C. 915 (2d Cir. 1952); United States v. The Helen, 164 F.2d 111, 1948 A.M.C. 30 (2d Cir. 1947) (damage); The President Coolidge, 101 F.2d 638, 1939 A.M.C. 97 (2d Cir. 1939) (garbage); La Merced, 84 F.2d 444, 1936 A.M.C. 1103 (9th Cir. 1936) (oil); The Scow No. 9, 152 F. 548 (D. Mass. 1907) (debris, brush, and dredged matter); United States v. Mormacsaga, 204 F. Supp. 701, 1962 A.M.C. 1238 (E.D. Pa. 1962); Maier v. Publicker Commercial Alcohol Co., 62 F. Supp. 161, 1946 A.M.C. 968 (E.D. Pa. 1945), aff’d, 154 F.2d 1020 (3d Cir. 1946) (grain residues); Myrtle Point Transp. Co. v. Port of Coquille R., 86 Ore. 311, 168 P. 625 (1917) (ashes) have all been held to violate the statute. Thus, an accidental spill of good oil overflowing from a tank becomes refuse. United States v. Ballard Oil Co., 195 F.2d 369, 1952 A.M.C. 915 (2d Cir. 1952). Although the statute did not specify defenses, it has been held that the statute reaches careless conduct, not inevitable accident. The Santa Tecla, 1931 A.M.C. 574 (1922). The second part of the statute prohibits the deposit of material in navigable waters which may impede or obstruct navigation. Arguments that the latter phrase modifies both the first and second portions of the statute have been unsuccessful. United States v. Ballard Oil Co., 195 F.2d 369, 1952 A.M.C. 915 (2d Cir. 1952). The statute may be used as the foundation for a civil action. Gulf Atlantic Transp. Co. v. Becker County Sand & Gravel Co., 122 F. Supp. 13, 1955 A.M.C. 128 (E.D.N.C. 1954).

139. United States v. Standard Oil Co., 384 U.S. 224 (1966). The indictment in this case charged a violation of the Refuse Act by discharging refuse matter consisting of a small amount of 100 octane aviation gasoline into a navigable river. The defense stressed the commercial value of the small amount of gasoline and argued that this could not constitute refuse under the circumstances. Nevertheless, stressing the national concern over pollution, the Court reversed dismissal of the indictment holding that the discharge of valuable aviation gasoline violated the Refuse Act. Justice Harlan, joined by Justices Black and Stewart, stated in his dissent that he would dismiss the indictment because criminal statutes must be strictly construed.


States territorial jurisdiction. In form, the statute set up strict liability in that the only defenses were to be emergency action and unavoidable accident.\textsuperscript{142}

Under this statute, an argument that conviction in a criminal proceeding must precede a civil action has been refused.\textsuperscript{143} Similarly unsuccessful was an argument that proof of wilfulness was required.\textsuperscript{144} Since the statute sets up a form of strict liability, the burden would be on the defendant to show, e.g., that the collision causing the spill was unavoidable.\textsuperscript{145} Evidence of heavy weather alone will not make out the defense.\textsuperscript{146} Where pollution occurred as the result of a negligent transfer of cargo between ships only the pumping vessel has been held liable.\textsuperscript{147} Where there are concurring causes of damage, one of which is vessel pollution, it has been held there will be no joint tortfeasors, no contribution and no indemnification rights.\textsuperscript{148} Under the statute the government may use a civil action in rem to collect the penalty.\textsuperscript{149} In 1930 an effort was made by conservation interests to tighten the statute but this was unsuccessful.\textsuperscript{150} In 1961 as the result of belated United States' ratification of the 1954 International Convention for the Prevention of the Pollution of the Seas by Oil a new statute corresponding to the convention definitions, and differing thereby from the 1924 Statute, was en-

\textsuperscript{142} 33 U.S.C.A. 3433 (Supp. 1967) (originally enacted as Act of June 7, 1924, ch. 316, § 3, 43 Stat. 605): "Except in case of emergency imperiling life or property, or unavoidable accident, collision, or stranding, and except as otherwise permitted by regulations . . . it is unlawful for any person to discharge or permit the discharge from any boat or vessel of oil by any method, means, or manner into or upon the navigable waters of the United States and adjoining shore lines of the United States."


\textsuperscript{145} The Sunset Una, 54 F. Supp. 464, 1944 A.M.C. 452 (S.D. Tex. 1944); see Hegglund v. United States, 100 F.2d 68, 1939 A.M.C. 92 (5th Cir. 1938). A recent successful defense of unavoidable accident was made out in United States v. Steel Tank Barge Rainier, 235 F. Supp. 361, 1965 A.M.C. 1371 (W.D. La. 1964) where a barge was holed by striking a submerged object.


\textsuperscript{147} United States v. Barge Seaboard No. 77, 1948 A.M.C. 567 (S.D.N.Y. 1948).


\textsuperscript{150} Hearings on H.R. 10625 Before the Comm. on Rivers and Harbors, 71st Cong., 2d Sess., pt. 1 (1930).
OIL POLLUTION OF THE OCEANS

This statute forbade discharges within fifty miles from the nearest land. In 1966 a step backward was taken at the urging of the oil industry: the Clean Waters Restoration Act was enacted containing language which makes more difficult the government's burden of proof in criminal prosecutions of shipowners. As noted previously, the 1924 Statute imposed strict liability with but two defenses. The 1966 Statute swept away that liability by redefining the word "discharge" to mean any "grossly negligent, or willful spilling, leaking, pumping, pouring, emitting, or emptying of oil." It is expected that this requirement of gross negligence will shortly be repealed.

Can the criminal statute be used by private parties to impose civil liability? In the common law courts there is a split of opinion as to whether unexcused violation of a regulatory statute is merely evidence of negligence or negligence per se. Following traditional tort doctrine, federal courts have held that violation of the oil pollution statute is only evidence of negligence. A different approach, however, might be taken in admiralty under the Pennsylvania Rule.

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157. The Pennsylvania, 85 U.S. (19 Wall.) 123 (1873). In The Pennsylvania there had been a collision between a sailing vessel and a steam vessel proceeding in dense fog. The steam vessel was going too fast. (Rule 16) But the sailing vessel was ringing a bell instead of sounding the required foghorn. (Rule 15) The sailing vessel argued that the bell gave as much warning as the foghorn would have, therefore, the violation did not contribute to the collision. The Supreme Court concluded that in order to escape a finding of fault the vessel must prove not only that the violation did not contribute but also that it could not have contributed to the collision. Cf. Seaboard Tug & Barge, Inc. v. Rederi AB/Disa, 213 F.2d 772, 1954 A.M.C. 1498 (1st Cir. 1954); National Bulk Carriers, Inc. v. United States, 183 F.2d 405, 1950 A.M.C. 1293 (2d Cir. 1950). Opinions of the present validity of the rule...
time collision law suggests a holding that evidence of the criminal violation creates a presumption of fault thereby shifting to the shipowners the burden of proving that the violation could not have contributed to the damage. Another admiralty rule holds that violation of regulatory statutes renders the vessel unseaworthy.\textsuperscript{108} Thus, following criminal prosecution by the Coast Guard, a pollution claimant in admiralty might easily obtain a judgment which would not be subject to limitation of liability. Of course, not all pollution claimants would be within the scope of existing anti-pollution legislation, and it is likely that resort and restaurant owners whose loss is pecuniary only would be denied recovery as not within the protected class.\textsuperscript{109} A question might here be raised as to whether the 1966 gross negligence amendment would affect civil liabilities under the general maritime law, at common law, or under the Refuse Act. Since the 1924 Act\textsuperscript{160} specifically provided that other laws for the preservation and protection of navigable waters would not thereby be repealed, and since this section continues in force,\textsuperscript{161} it is apparent that the 1966 Amendment would have no effect on the earlier remedies.

V. DEVELOPMENT OF THE INTERNATIONAL CONVENTIONS

By traditional international law, since states do not have political jurisdiction beyond the territorial sea or a narrow zone contiguous to the territorial sea there would be no right for officials of a coastal state to interfere with vessels causing pollution on the high seas. Only the state of the polluting vessel's flag could interfere in the absence of an international agreement. Such agreement would effect a limited extension of coastal state jurisdiction on the high seas through the medium of a mutual surrender of a portion of the flag state's jurisdiction to other states for the limited purpose of the prevention of pollution. By this somewhat anarchistic theory, agreement of all maritime powers, or at least all maritime powers with ocean-going tanker fleets, would be neces-

\textsuperscript{108} May be found in G. Gilmore & C. Black, supra note 14, at 405, and J. Griffin, The American Law of Collision 476 (1949).
\textsuperscript{109} Kerman v. American Dredging Co., 355 U.S. 426 (1958), where a seaman was killed when an open flame kerosene lamp ignited highly flammable vapors from the surface of a heavily polluted stream near an oil refinery.
\textsuperscript{110} Cf. H. Christiansen & Sons, Inc. v. Duluth, 154 F.2d 205 (8th Cir. 1946), an action under the Refuse Act in which liability was denied on the ground that the statute was enacted for the protection of navigation generally and not for the protection of adjacent dock-owners.
sary in order to achieve any effective international regulation. When the factor of conflicting coastal state interests is added it becomes apparent that the prospects for international agreement are not good.

In the early years of this Century, as the use of persistent oils for heating, propulsion and lubrication dramatically increased, authorities in charge of ports in the United States, Great Britain, Australia, Canada, Scandinavia, France, Italy, Spain, Portugal and The Netherlands took action by port regulation to prohibit the discharge of oil in certain harbors. General legislation forbidding the escape or discharge of oil in territorial waters (3 mile limit) was enacted in Great Britain in 1922 and in the United States in 1924.

In the wake of an aroused public interest, Congress in 1922 requested the President to convene an international conference of maritime nations to determine effective means to prevent pollution of navigable waters in view of the potential fire hazards, destruction of fisheries and depreciation of seashore resort properties. In preparation for the conference an extensive report was prepared by an interdepartmental committee. The resultant 1926 conference represented another effort of the United States to achieve unification of international maritime law, an effort begun in 1889 and running through American history despite the failure of the United States to ratify eleven of thirteen international maritime conventions prepared by Comité Maritime International (C.M.I.).

162. See supra note 141.
163. Interdepartmental Comm., Report to the Secretary of State, Oil Pollution of Navigable Waters 19, 104-08 (1926).
164. Id. at 19, 108.
165. Id. at 20, 108-09.
166. Id. at 21-23, 110, 116-19.
167. Id. at 21, 110-13.
168. Id. at 21, 114-15.
169. Id. at 23, 117.
170. Id.
171. Id. at 22, 116.
172. Oil in Navigable Waters Act of 1922, 12 & 13 Geo. 5, c. 39, § 3, sched. 1. This legislation initiated the Oil Record Book as an attempt to furnish some documentary evidence to prove or deny a charge of pollution. As in the United States the 1922 Act has been amended as a result of the 1954 International Convention, Oil in Navigable Waters Act of 1955, 3 & 4 Eliz. 2, c. 25, and the 1962 amendments to the International Convention, Oil in Navigable Waters Act 1963, c. 28.
173. See supra note 141.
175. See supra note 163.
176. Comité Maritime International (C.M.I.) is an organization, "to promote . . . the unification of international maritime and commercial law and practice, whether by Treaty or Convention or by establishing uniformity of domestic laws, usages, customs or practices."
The 1926 conference was attended by representatives from Belgium, Great Britain, Canada, Denmark, France, Germany, Italy, Japan, The Netherlands, Norway, Spain and Sweden and was assisted by experts representing the interests of conservation societies, fisheries, shipowners, oil producers and marine underwriters. Conference committees considered causes of pollution, classification and admeasurements of vessels, territorial zones and enforcement measures, and produced a draft convention.

Despite United States' insistence on the complete prohibition of oil-discharge, agreement was reached that in prohibited zones all sea-going vessels, other than war vessels, carrying crude fuel or diesel oil in bulk as cargo or as fuel would not discharge oil or oily mixtures if the oil content exceeded .05 of one percent, i.e., sufficient to constitute a film on the surface of the sea visible to the naked eye in daylight. Governments were to use all reasonable means to require their own flag vessels to respect prohibited zones which were to extend at least 50, and sometimes 150, nautical miles from the coast and were to include special

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C.M.I. Const. art. I. Its headquarters are in Brussels where it was originally established in 1897 chiefly due to the efforts of Louis Franck. The historical development of C.M.I. is sketched in Sweeney, Proportional Fault in Both to Blame Collisions, Studi in Onore di Giorgio Berlingieri 549, 563-68 (1964). The method used by the C.M.I. in achieving thirteen international conventions on maritime subjects is: submitting questionnaires about a given subject to national Maritime Law Associations, circulating the answers to the questionnaires, informal discussions, formal meetings to draft a convention, revising and amending the draft, requesting the Belgian government to convene a Diplomatic Conference, national ratifications of the Convention and finally adoption of the principles of the draft convention in domestic legislation. A major difficulty in the past, however, has been that C.M.I. conventions were drafted by shipowners' representatives with little attempt to accommodate the interests of other segments of the maritime industry such as labor unions, shippers and governments. The result of this imbalance was the failure of the conventions to achieve ratification by the major maritime nations. This is especially true in the case of the United States which has ratified only the Salvage Convention of 1910 and the Bills of Lading Convention of 1924 (Hague Rules). Today there are national Maritime Law Associations in Argentina, Belgium, Brazil, Canada, Chile, Denmark, Finland, France, Federal Germany, Great Britain, Greece, India, Ireland, Israel, Japan, Mexico, Morocco, The Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, United States, Uruguay and Venezuela.

The International Marine Conference of 1889 met at Washington, D.C., and produced the Rules of the Road, i.e., The International Regulations for Preventing Collisions at Sea. Among other subjects considered at the Conference were rules to determine seaworthiness, load lines, compulsory sea lanes in frequented waters, uniform buoyage, qualifications of officers and the establishment of a permanent international maritime authority.

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177. See Preliminary Conference on Oil Pollution of Navigable Waters (1926), T.S. No. 736-A.

178. Id. at 444-49.

179. Id. at 438-40.
fishery zones. Furthermore, the governments agreed to encourage the development of effective separators and separating tanks to remove oil from ballast water, which tankers carry on their return voyages from consumption to production areas. This encouragement was to be achieved by incentive legislation to exempt separator spaces from the payment of tonnage dues.\textsuperscript{181} Such separators were not required, however, in deference to the many old ships and marginal operators. The convention was to go into effect with five ratifications, but it was never ratified. During the interwar years, action to implement an international regime to control oil pollution was requested from the League of Nations; but nothing was accomplished.\textsuperscript{182} During this period there was undoubtedly much voluntary compliance with the 50 mile zones by shipowners, and the development of effective separator devices decreased the pollution dangers from tank-cleaning operations in newer vessels. Of course, one consequence of years of submarine warfare during the Second World War was the deliberate sinking of oil tankers on the high seas as well as along the coasts, although this source has been discounted as responsible for mysterious beach pollution now.\textsuperscript{183}

After the establishment of the United Nations in 1945, it appeared that the subject of oil pollution of the oceans would be within the province of the proposed Intergovernmental Maritime Consultative Organization (IMCO).\textsuperscript{184} However, because of political and economic differences among the powers, IMCO was not established until 1958. Accordingly the Economic and Social Council went ahead, by questionnaire and study,\textsuperscript{185} with preparatory work for a regulatory agency, and Great

\begin{flushright}
\textsuperscript{180} Id. at 440.
\textsuperscript{181} Id.
\textsuperscript{184} Convention on the Intergovernmental Maritime Consultative Organization, Geneva, March, 1948. N. Singh, supra note 20, at 1253. There are now 64 states, maritime and non-maritime, which have ratified the Convention, although there are many reservations by important maritime states.
\textsuperscript{185} U.N. Docs. E/CN.2/100 (1951) and E/CN.2/134 (1952).
\end{flushright}
Britain called a conference to consider the problem and draft a convention.¹⁸⁶

By 1954 the problem of oil pollution had reached such a level of crisis in Great Britain and the North Sea area that there was support for mandatory installation of separator devices and the absolute prohibition of oil-discharge. Thirty-two nations attended the conference at London in May, 1954 and an international convention was prepared, despite strong opposition by the United States, which considered the regulations unrealistic, believing the problem would disappear by educational programs and technological advances.¹⁸⁷

By 1954, many coastal nations had adopted legislation prohibiting oil discharge in territorial waters.¹⁸⁸ Since there was wide divergence in the

¹⁸⁶. British action in calling the 1954 Conference was the result of the appointment in 1952 of a Committee in the Ministry of Transport under the chairmanship of Percy Faulkner, which reported on July 17, 1953. C. Colombos, supra note 182, at 432; Shepheard & Mann, Reducing the Menace of Oil Pollution, 31 Dep't State Bull. 311-14 (1954); see N. Singh, supra note 20, at 1157.

¹⁸⁷. Shepheard & Mann, supra note 186. It may be speculated that U.S. opposition was caused by the opposition of the U.S. oil transport industry which now by hindsight seems to have been shortsighted. However, it must be remembered that during this period this industry was expanding rapidly and was under attack by organized labor at home and by competing European shipowners in the controversy over the “Genuine Link” requirement in art. V of the Geneva Convention on the High Seas. Seen in this light, U.S. opposition to further regulation of the oil tanker industry was an attempt to stop the flight from U.S. flag ownership to “flags of convenience” of Panama or Liberia. International shipping is at best a difficult business with intense competition especially where it is not regulated by conference agreements as to rates, thus the oil industry as producer and shipowner would not want to require additional equipment or crew to man it. By 1957 Liberia had (and continues to have) the largest fleet in the world, mostly newer vessels beneficially owned by American interests and registered at Monrovia to take advantage of lower operating costs (i.e., wage scale lower than in U.S.). See B. Bocek, supra note 13, at 16-31. It is estimated that in 1966 American flag tankers carried only 5.5% of oil cargoes to and from the United States. AFL-CIO Maritime Trades Seminar 6 (Nov., 1967). Despite U.S. opposition to the Oil Pollution Convention a positive step was taken on September 19, 1956, when the National Committee for Prevention of Pollution of the Seas by Oil was convened to study the problem and recommend practical measures to prevent oil pollution. 35 Dep't State Bull. 521-22 (1956). Establishment of the Committee was in compliance with resolutions of the 1954 Conference.

¹⁸⁸. See U.N. Docs. E/CN.2/134 (1952) and ST/STCA/41 (1956). Prior to the 1954 International Convention the following members of the U.N. had adopted domestic legislation to control pollution in territorial waters: Argentina, Sanitary Code, arts. 120-22 (1951), XC Digesto Maritimo y Fluvial, arts. 2389, 2390; Australia, Oil in Navigable Waters Act, 1927; Belgium, Royal Order of 22 Jan. 1929, art. 11.2; Brazil, Regulations Concerning Port Authorities, arts. 129, 146, approved by Decree No. 5,798 of 11 Jun. 1940; Chile, General Maritime, River & Lakes Regulations, No. 1,078, art. 130; France, Decrees of 28 Dec. 1912 and 31 Aug. 1926; Iraq, Port Rules and By-laws of 1942, Pt. 5, para. 7; Ireland, Oil in Navigable Waters Act, 1926; Israel, Oil in Navigable Waters
extent of claims to territorial waters, the conference had to by-pass this problem and therefore produced a system of pollution-free zones to encompass both territorial and non-territorial waters, which had been recommended in 1926. These zones were already being observed voluntarily to a considerable extent by the major oil companies. The principal problem with which the 1954 conference concerned itself was the prevention of deliberate pollution by tanker cleaning operations. Recommendations for surveillance on the high seas produced no agreement as to methods because support for absolute flag-state sovereignty was so strong that the Convention had to remain silent on the problem. The Oil Record Book was adopted from the 1922 British legislation, the expectation being that most violations could be proven by mathematical computations from the Oil Record Book, the ship's manifests and the log. As an enforcement measure, contracting states were given permission to board suspected vessels while in their ports to examine the book, but prosecution for violation on the high seas would be by the Ordinance of 1936; Japan, Law for Protection of Aquatic Resources, of 17 Dec. 1951; New Zealand, Oil in Territorial Waters Act, 1926, and Waters Pollution Act, 1953; Pakistan, Ports Act, Sec. 21; Philippines, Customs Admin. Order No. 164 of 28 Jul. 1923; Portugal, Decrees Nos. 9,704 of 21 May 1924 and 14,354 of 29 Sep. 1927; Spain, Decree of 24 Mar. 1933, Circular of Dir. Gen. of Shipping of 27 Jul. 1925, confirmed 8 Jun. 1954; Thailand, Navigation Law of 2456 B.E. (1913); U.A.R., Petroleum Regulations of Min. of Communications, arts. 14-17; U.K., Oil in Navigable Waters Act, 1922; U.S.A., Oil Pollution Act, 1924; Yugoslavia, Regulations Implementing Harbors Ordinance of 1950 (Official Journal No. 51 of 1950); Venezuela, Ley de vigilancia para impedir la contaminacion de las aguas por el petroleo of 14 Jul. 1936. (Source: U.N. Doc. ST/ECA/41 (1956)).

189. International Convention for the Prevention of Pollution of the Sea by Oil, London, May 12, 1954. See also [1961] 3 U.S.T. 2989, T.I.A.S. No. 4900, 327 U.N.T.S. 3, N. Singh, supra note 20, at 1158; 6 E. Benedict, supra note 35, at 506. As of January, 1968 the 1954 Convention has been ratified or adhered to by Algeria, Australia, Belgium, Canada, Denmark, Dominican Republic, Finland, France, Federal Germany, Ghana, Greece, Iceland, Ireland, Israel, Italy, Ivory Coast, Japan, Jordan, Kuwait, Lebanon, Liberia, Madagascar, Mexico, The Netherlands, Norway, Panama, Philippines, Poland, Portugal, Spain, Sweden, Switzerland, U.A.R., United Kingdom, United States, and Venezuela. The 1962 Amendments to the Convention have been ratified or adhered to by Belgium, Canada, Denmark, France, Ghana, Ireland, Jordan, Kuwait, Liberia, The Netherlands, Norway, Panama, Philippines, Poland, Portugal, Spain, Sweden, Switzerland, U.A.R., United Kingdom, United States, and Venezuela. It must be noted, however, that there are reservations and understandings concerning both the Convention and the Amendments. The 1962 Amendments will be effective upon receipt of ratifications by two-thirds of the parties to the 1954 Convention. See Inter-Governmental Maritime Consultative Organization, Preliminary Draft of Ten Articles Prepared For The Comité Maritime International By Its International Sub-Committee “Torrey Canyon” 3 (Aug. 1, 1968); United States Dept of State, Treaties in Force (1968).

190. International Convention on Prevention of Pollution of the Sea by Oil, supra note 189, art. IX(2). Examples of interference on the high seas by non-flag state vessels are found in international fisheries regulation and protection of the North Atlantic cable.
contracting flag state which was obligated to conduct an investigation\textsuperscript{191} and prescribe penalties for violation no less severe than those authorized for pollution within territorial waters.\textsuperscript{192} Installation of oily-water separators was made mandatory in certain circumstances and their installation in all circumstances was encouraged by an annexed resolution.\textsuperscript{193} The liability for discharge within the prohibited zones was less strict in nature than territorial regulations, the defenses being emergency action and the taking of all reasonable precautions to prevent or minimize the escape of oil following damage or unavoidable leakage.\textsuperscript{194} Finally, all sea areas within 50 miles from land were to constitute prohibited zones and special regimes were established for the Adriatic Sea, the North Sea, the Northeast Atlantic and Australia.\textsuperscript{195}

Supervision of the Convention would be undertaken by IMCO, although it had not yet been organized. This Convention went into effect on July 26, 1958, and a change of view by the industry and the National Committee for Prevention of Pollution of the Seas by Oil brought about adherence by the United States on May 17, 1961.\textsuperscript{196} Domestic legislation to enforce its provisions was enacted on August 30, 1961.\textsuperscript{197}

As a result of the work of the 1958 Geneva Conference on the Law of the Sea,\textsuperscript{198} a provision was inserted in the Convention on the High Seas requiring states to "draw up regulations to prevent pollution of the seas by the discharge of oil from ships or pipelines or resulting from the exploitation and exploration of the seabed and its subsoil, taking account of existing treaty provisions . . . ."\textsuperscript{199} It has been considered that this 1958 Convention is a codification of existing international law,\textsuperscript{200} thus underscoring the duty of states to take action to prevent pollution.\textsuperscript{201}

See C. Colombos, supra note 182, at 381, 412. The North Seas Convention of 1882 provided a landmark for international regulation by giving a power of inspection and even arrest in grave cases to public vessels of contracting states. Id. at 409.

191. Id. art. X.
192. Id. art. VI.
193. Id. art. VII and Resolution 3.
194. Id. art. IV.
195. Id. Annex A.
200. The preamble to the High Seas Convention declares, "The States Parties to this Convention, Desiring to codify the rules of international law relating to the high seas . . . ."
201. It has been the consistent position of the British Government that protective action
Following the organization of IMCO in 1958, another International Conference was held on the subject of oil pollution in Copenhagen in July, 1959. One product of this Conference was a demand for the elimination of all intentional discharge, a position similar to that urged by the United States in 1926. The Conference also recommended an extension of zones to the Northwest Atlantic. Acting on this preparatory work, the Second London Conference on Oil Pollution was held under IMCO auspices from March 26 to April 13, 1962, for the purpose of amending the 1954 Convention. This Conference, influenced to a greater degree than in 1954 by coastal state interests, resulted in extension of the prohibited zones. Furthermore, the list of exempted vessels was cut down, and the Conference resolved to work for the achievement of a complete prohibition of oil discharge.

It may be anticipated that there will be future amendment to the 1954 Convention expanding the prohibited zones and further contracting the number of exempted vessels. Outright prohibition of oil discharge by tankers with mandatory installation of separators may also be anticipated together with expansion in the rights of surveillance on the high seas. Outside the scope of the 1954 Convention there may eventually emerge an international agreement on civil liability aspects and an international agreement on the rights of coastal states to take protective measures against pollution.

In April, 1967 after the Torrey Canyon disaster, the British Government submitted a note to the Third Extraordinary Session of the IMCO to bomb the wreck of the Torrey Canyon was authorized by traditional international law. See note 235 infra.

202. IMCO came into being in 1958 with headquarters in London. It is a specialized agency of the United Nations, whereas C.M.I. is entirely private. Its principal concerns are technical matters affecting maritime safety, but it also can consider, “any matters concerning shipping that may be referred to it by any organ or specialized agency of the United Nation.” IMCO Convention, art. I.


205. The Prohibited Zones were extended to cover an area 100 miles from the nearest land in zones along the East and West Coasts of Canada, Iceland, Norway, the Mediterranean Sea, Adriatic Sea, the Black Sea and Sea of Azov, the Red Sea, most of the Persian Gulf and Arabian Sea and into the Bay of Bengal and Indian Ocean. The Australian zone was expanded from 100 to 150 miles from land. See International Convention for the Prevention of Pollution of the Sea by Oil, supra note 204, at Annex A.

206. Id. art. I(1), art. II(1), art. III(c).
207. See N. Singh, supra note 20.
208. See note 221 infra.
209. See note 232 infra.
The note suggested preventive measures of a technical nature: mandatory sea lanes, additional navigational aids, shore radio control of offshore tankers, speed restrictions near land, limitations on the use of automatic pilots, special training for tanker masters and crews, periodic testing of equipment, design control of tankers and special marking of tanker routes. The note also suggested changes in international maritime law: liability independent of negligence, amendment to the limitation of liability convention, compulsory insurance and special principles to cover the cost of fighting pollution. Finally, there was a suggestion that the principles elaborated for oil tankers might be applied to other noxious or hazardous cargoes. Acting on this note the IMCO Council referred the questions to the appropriate legal and technical committees for research and report with the view to recommending future international agreements on the problems raised by the Torrey Canyon.211

VI. PROPOSALS TO CHANGE EXISTING LAW

To understand the pollution policy choices which will be confronting the international community, it is important to understand the underlying interests of the participants. For example, the American merchant marine enjoyed its great days before the Civil War. Thereafter, since ships could be built and manned at less cost in Europe because of lower wage scales there, American competition was discouraged and investment in the merchant marine declined except during the crisis years of the First and Second World Wars. Thus, the United States is not now considered a shipowning nation but rather a cargo owning nation. Indeed, a mere 7.2% of American foreign trade was carried in American flag vessels in 1966.212

Using the Hudson Institute's classification of future national economies as post-industrial, advanced industrial, mass consumption and pre-industrial,213 we can attempt to classify the interests of the major states over the next 30 years. Of the post-industrial states, the United States and Canada are not shipowning nations; whereas, Japan and Sweden are (although it may be wondered how long they will continue to be) shipowning nations. All other states are considered to be industrial, consumer, or pre-industrial. Of the industrial states, the United Kingdom,

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212. AFL-CIO Maritime Trades Seminar 6 (Nov. 1967). In 1967 the major merchant fleets of the world according to deadweight tonnage and number of vessels were: (1) Liberia (2) United Kingdom (3) Norway (4) Japan (5) United States (6) Greece (7) U.S.S.R. (8) Federal Germany (9) Italy (10) Panama (11) France (12) The Netherlands. Id. at 8.
Federal Germany, Finland, France, Belgium, The Netherlands, Norway, Denmark, Italy, the Soviet Union, German Democratic Republic, Israel and Poland are both cargo owning and shipowning nations; but, only the United Kingdom, The Netherlands, Federal Germany, France, Norway, Denmark and the Soviet Union are major shipowning nations. Australia, New Zealand, Austria and Czechoslovakia are not shipowning nations. Of the consumer states, only Greece, Spain, Yugoslavia and Formosa are shipowning nations whereas Portugal, Romania, Hungary, Lebanon, U.A.R., Mexico, Argentina, Venezuela, Chile, Colombia, South Korea and Malaysia are not. All the rest of the nations—Asian (including China and India), African, Middle Eastern and Latin American will probably remain pre-industrial, that is, producers of raw materials. They also will not be shipowning states. Accordingly it can be expected that there will be considerable diversity of opinion in the future between the interests of coastal states and shipowning states about the pollution problem, and the degree of industrialization may be an indication of the willingness of coastal states to exact an absolute enterprise liability from the tanker industry and impose restrictive controls on tanker operations.

It has been shown that in both the United Kingdom and the United States the shipowner’s liability to the pollution claimant is dependent on proof of negligence. In the extensive discussions of the oil pollution problem five possible alternatives have emerged, each of which interacts with proposed changes in limitation and insurance laws: (1) preserve the existing fault liability; (2) enact a strict liability on the shipowner; (3) enact an absolute liability on the shipowner; (4) enact an absolute liability on the cargo owner; and (5) enact an extra-legal compensation scheme paid by the affected government.

(1) The Existing Fault Liability. This requires the victim to prove negligence on the part of the carrier. This difficult burden of proof, which might discourage many claimants from bringing suit, could be made easier if the courts were to permit claimants to use the inferences from res ipsa loquitur to prove the case. Past experience has shown, however, that most oil spills occur because of provable negligence or intention. The negligence remedy in admiralty, assisted by strict liability for unseaworthiness, would adequately cover most situations including the case of the unseaworthy vessel. No serious proposal for a liability based on gross negligence has been made in the current debate. Nevertheless, even those who recommend retention of the present system recognize

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214. The anger of the under-developed nations with the practices of the shipowning states is well illustrated by the discussions during the Second United Nations Conference on Trade and Development (UNCTAD) at New Delhi from February to March, 1968. U.N. Doc. TD/L.1-TD/L.37 (1968).
the need for a change in the existing United States Limitation of Liability Laws and the International Convention on Limitation of Liability. If negligence is to be retained, there is a good argument that there should be no limitation of liability at all. On the other hand, if there is to be some form of compulsory insurance against pollution, then good underwriting practice would require some predictable limit if the insurance premium is to be reasonable. Thus, some overall limitation amount fixed either at a simple figure or fixed by a computation based on the deadweight capacity of the vessel would be an acceptable compromise, since the deadweight tonnage reflects the earning capacity of the vessel and its value to the owner. The defects in the existing system would appear to be the uncertainties about the use of *res ipsa loquitur*\(^{215}\) and the unseaworthy remedy,\(^{216}\) and these uncertainties argue against retention of the existing system.

(2) **Strict Liability on the Shipowner.** Strict liability would shift to the shipowner the burden of going forward with evidence that the loss was caused by some unexpected natural disaster or some intervening third force, such as a collision, for which the carrier was not responsible. If there is to be a new international convention, it would seem to be most desirable to employ a system of liability which is compatible with both common law and civil law systems. This strict liability would be acceptable to common law lawyers trained in the doctrine of *Rylands v. Fletcher\(^{217}\)* placing liability on the defendant who suffers a dangerous substance to escape from his land.\(^{218}\) In like manner it would be familiar to the civil law lawyers trained in the doctrine of objective responsibility under the Napoleonic Code.\(^{219}\) Thus, it might legitimately be described as one of the "general principles of law recognized by civilized nations."\(^{220}\)

An additional argument in favor of strict liability is the similarity to the existing liability of shipowners to cargo owners, passengers and crew. These liabilities are now covered under "P & I" policies and the addition of pollution claimants to this coverage would not cause a major disruption in the insurance industry.

After some months deliberation C.M.I. has produced a Draft Convention on Civil Liability in Oil Pollution Disasters.\(^{221}\) This draft is limited

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\(^{215}\) See note 127 supra.

\(^{216}\) See note 70 supra.

\(^{217}\) See note 113 supra.

\(^{218}\) See note 111 supra.

\(^{219}\) L.R. 3 H.L. 330 (1868). See note 113 supra.


\(^{219}\) C. Civ. art. 1384 (66e ed. Petits Codes Dalloz 1967); see note 109 supra.

\(^{220}\) I.C.J. Stat. art. 38(1) (c).

\(^{221}\) IMCO Doc. A1/B/2.06 (nv.6), Aug. 1, 1968.
to oil pollution and may thus prove to be unacceptable to most governments desirous of taking action to protect their maritime environment from any waterborn polluting substance. It also specifically forbids impleader-type actions either directly (as against an insurance company) or by indemnification (as against the manufacturer of defective equipment). Public policy may legitimately preclude direct actions against the insurance company in order to hinder collusive claims, but the disruption of the normal process of the tort law in warranty cases should be unacceptable to the United States. The shipowner is given the right to claim against the limitation fund for the cost of clean-up and preventive measures taken by him. The Convention fixes a two year statute of limitations from the date of the incident and provides for jurisdiction in the courts of the state within whose territory the pollution damage occurred, with a further provision for exclusive jurisdiction in the state chosen by the shipowner in case pollution damage occurs in more than one state. The last provision may also be unacceptable to the United States. Some further provision must be inserted to permit a division of the limitation fund so as not to require pollution claimants to proceed in the courts of a foreign nation. This might be done in a provision for compulsory insurance or for proof of financial responsibility. The strict liability section states, "[t]he owner shall be liable for any pollution damage caused by his ship to property within the territory of a Contracting State unless he proves that the escape was not caused by his fault or that of any person, whether or not his servant or agent, concerned in the operation, navigation or management of the ship."222 Pollution claimants could bring their claims against the polluting ship initially, but that shipowner might have an action over against the other colliding vessel in a mutual fault collision. Proponents of this solution would probably favor a fixed limitation figure per ton slightly higher than the existing formulae. However, this will not be an adequate solution unless the fund could be drastically increased to an amount approaching the $16,000,000 actual damages apparently suffered in the Torrey Canyon disaster. The best way to achieve this would be to use the deadweight tonnage of the vessel as the multiplicand.223

(3) Absolute Liability on the Carrier. This would hold the carrier liable for pollution damage once the plaintiff shows the fact and cause of damage. This proposal has received the preliminary support of the United

222. Id. art. II. Also described as fault liability with presumption of negligence. See note 126 supra.

223. See note 43 supra. Industry opposition to deadweight tonnage determining the limitation figure can be anticipated if vessels of 500,000 D.W.T. size prove practicable. However, as long as the limitation fund is determined by a predictable factor, it should be insurable.
The premise underlying this liability is that all modern enterprises are heavily insured against liabilities and that it is unrealistic to expect tort law to have any deterrent effect on conduct, since neither the negligent employee nor employer is called upon to pay a judgment. In this view, it would not be inequitable to maintain the system of fault liability between the cargo owner and the carrier, since both interests are insurable and litigation between ship and cargo usually results merely in an adjustment between sets of underwriters; whereas, the potential victims of oil pollution are uninsured and most often their economic losses are uninsurable, thus making it most inequitable to maintain the present system of fault liability as to innocent third parties. On economic grounds it can be argued that it would cause savings by channeling all insurance risks to the shipowner's insurer thereby eliminating the necessity for coverage by vessels not oil tankers. It must be recognized, however, that the carrier is already burdened with many potential liabilities and the industry is highly competitive in most countries, with subsidized carriers operating at an actual loss in other countries. If the liability is to be absolute, it is almost certain the carrier will have to pay a premium which will be very expensive at least for the first five years of operation of this insurance until a claim history has been developed and underwriters can set competitive rates. If the cost should be prohibitive a black market in oil transport might well result. Arguments for this liability assume that the carrier will pass on the cost of the insurance premium to cargo owners who will pass the burden on to the consumers so that it falls where it properly belongs. This overlooks the fact that many tankers operate under long term charters (up to 20 years) and that rate-changes involve complex determinations which will provoke shipper resistance with prolonged investigations, thus making it very difficult for the carrier to pass on this cost. Of course the identity of the carrier is readily ascertainable, and it would be a fairly simple matter to police a compulsory insurance provision by excluding those vessels not properly covered or adequately insured. Amendments to the 1910 Collision Convention and the Limitation of Liability Conventions of 1924 and 1957 would be necessary if this liability was adopted. Most proponents of this liability favor some low limitation of the overall liability, whereas the United States has suggested a top limit of $30,000,000 as not unreasonable, and all seem to favor compulsory insurance. Thus far

224. Letter from Undersecretary Katzenbach to Secretary General of IMCO, April 1, 1968.
225. Rates are not directly approved by the Federal Maritime Commission but they must be filed with the Commission to enable it to enforce the anti-trust aspects of the Conference system and the statutory prohibition on discriminatory rates. 39 Stat. 735 (1916), as amended, 46 U.S.C. § 817 (1964).
this new liability has attracted some support, but it may not be possible to obtain agreement on the limitation amount. An oft-heard argument in favor of absolute liability is that it is the “wave of the future,” and that international agreement on oil tanker liability would be a good place to begin the shift which would eventually come to all aspects of maritime law. The case for an international standard of absolute liability has been well stated by Professor Goldie:

A municipal system has sufficient authority to prohibit ultra-hazardous activities which are not socially beneficial. International law, on the other hand, is still largely a system of permissive and facultative norms. The practicality, therefore, of seeking to outlaw many activities which are not conducive to the general utility may be questioned. It would be more in keeping with the present stage of international law's development to argue for the regulation of these activities, and for the imposition of stringent responsibilities and high maximum monetary levels of liability upon them.

Another argument urges that it would be inconsistent for the United States to back away from absolute liability in this type of case since we have recently forced it on the airlines. The difficulty here is that the potential claimants cannot be equated with passengers whose actions and very survival are controlled by the operators of the aircraft. It is likely that the largest recoveries in future pollution cases will be achieved by government agencies for protective measures or clean-up expenses, or by the government as title-holder of the beach front. It is respectfully submitted that United States support of this proposal is misplaced. No compelling reason has been offered for such a drastic change in the nature of the liability or disruption of the insurance industry.

(4) Absolute Liability on Cargo. This would hold the cargo owner liable for pollution damage once the plaintiff shows the fact of damage. The reason for liability is ownership of an ultra-hazardous commodity since it is the cargo and not the carrier which actually causes the pollution. This might be an in rem liability in the nature of the present liability of cargo to respond for general average contributions. Since the cargo would be primarily liable and the cargo owners would necessarily insure that liability, it is argued that this would act as an incentive for them to select the best ships and safest routes. One great difficulty with this argument is the fact that ownership of the cargo often changes during the voyage and it would be impossible to police a requirement of compulsory

226. See E. DuPontavice, La Pollution des Mers Par les Hydrocarbures (1968); Preliminary Report of the International Subcommittee, supra note 17. See also the persuasive arguments for application of absolute liability to international space law in Goldie, Liability for Damage and the Progressive Development of International Law, 14 Int'l & Comp. L.Q. 1189 (1965).

227. Id. at 1221.
insurance. The best argument for cargo liability is theoretical; the burden
would fall directly on all consumers of oil products where it properly
belongs since it is this form of enterprise that has created the risk. Of
course, the counter argument is that crude oil is not inherently dangerous.
If the liability were placed on cargo, existing international conventions
would not require amendment and the task of the law makers would be
that much simpler.

(5) Extra-legal Government Compensation of Victims. This presumes
that fault liability is unsatisfactory but regards as distasteful a further
burden on either the carrier or the oil industry. Shifting this burden
from the private sphere to the public sphere would be highly unusual
outside of a Marxist economy and it is not surprising that the proposal
has not attracted much support. Under this proposal, all sufferers from
oil pollution would be compensated out of government funds which
would be derived from a tax levied on all oil consumers. The expensive
search for the deliberate or careless polluter could be abandoned, al-
though there might have to be some deterrent by way of criminal sanc-
tions against those who deliberately desecrate the marine environment.
No revision of existing conventions would be required, and it can be
argued that, since all nations already impose tax burdens on the oil
consumer, the machinery for collecting the proposed tax is now working.
It might also be argued that the United Kingdom and New York

VII. LIABILITIES ON THE HIGH SEAS

The preceding discussion has dealt with the problems of the effects
of pollution on a sea coast and the regulations set up by coastal states to
protect themselves from pollution in a contiguous zone beyond the sea-

229. Crime Victims Compensation Board Act, N.Y. Exec. Law §§ 620-35 (Supp. 1966); see
Comment, Compensation for Victims of Crimes of Violence—New York Executive Law
Article 22, 31 Albany L. Rev. 120 (1967); Comment, Compensation for Victims of Crimes of
Violence, 30 Albany L. Rev. 325 (1966). Following the decision in Dalehite v. United States,
346 U.S. 15 (1953), holding no liability under the Federal Tort Claims Act for the 1947
Texas City disaster with claims of $200,000,000, Congress made grants to the claimants of
about $6,000,000. See 2 F. Harper & F. James, Torts 1659 (1956).
ward limits of territorial waters. It is clear that a state may require vessels of all states to comply with its anti-pollution legislation in these waters despite the right of innocent passage of merchant vessels. Also, states are under a duty to prevent the use of territory for the purpose of injuring other states or their citizens. This duty may serve as a justification of the right to take preventive measures on the high seas in the absence of an international agreement on the subject. Also, the greater rights exercised over the ocean by states (e.g., recent extensions of coastal fisheries' limits) will of necessity give rise to a greater duty to avoid pollution.

Where a vessel has been lost on the high seas no state has jurisdiction over the incident as such, but the courts of the vessel's flag state would be called upon to decide both civil and criminal controversies arising out of the transport of goods and passengers and the operation of the vessel. However, where two ships of different flags are in collision on the high seas, the choice of law problem becomes extremely complex. The


231. The duty of a state under international law to control nuisances is illustrated by the Trail Smelter Arbitral Tribunal, 33 Am. J. Int'l L. 182 (1939), where Canada was held to a duty to control a smelter situated at Trail, British Columbia, which polluted the air and caused damage to nearby residents in the state of Washington. Another form of pollution which states may be required to control in the future is pollution by the airwaves; by jamming or propaganda. Today there is no general duty on states to suppress hostile propaganda and it may be questioned how far the United States Congress could go in that direction without opposition from the first amendment right to freedom of speech. Sala v. New York, 334 U.S. 558 (1948); cf. Kovacs v. Cooper, 336 U.S. 77 (1949). Nevertheless, European states, because of their close proximity, have been especially concerned with the problem of suppression of subversion caused by propaganda broadcasts, and in 1936 certain democratic states agreed to prohibit among themselves transmissions calculated to disturb international understanding or incite acts of popular violence incompatible with internal order or security. See International Convention Concerning The Use of Broadcasting In the Cause Of Peace, 32 Am. J. Int'l L. 113 (Supp. 1938). See also 2 D. O'Connell, International Law 710 (1965).


233. In the case of the S.S. "Lotus," [1927] P.C.I.J., Ser. A, No. 9, decided by the Permanent Court of International Justice at The Hague, predecessor to the International Court of Justice, a Turkish merchant vessel and a French merchant vessel were in collision on the high seas outside Turkish territorial waters. The Turkish vessel sank with the loss of
solution adopted in a United States forum is to apply the forum law to civil actions.\textsuperscript{284}

With respect to actions of a government to protect its maritime environment by protective measures taken on the high seas, it is being urged that there is no precedent in international law to permit such state action and that accordingly a new convention will be required to correct the defect. Of course, this cannot be the position of the British Government and it seems inconceivable that any coastal state would concede

eight Turkish citizens. When the French vessel subsequently arrived in Turkey, its intended destination, Turkish authorities arrested the French officer of the deck and the Turkish captain of the sunken vessel. Both were tried for manslaughter and sentenced to imprisonment. The French government objected and an action was brought against Turkey by France after negotiations to secure release of the French officer failed. The question posed to the Hague Court was whether Turkey had acted in accordance with the principles of international law. The majority opinion approved the Turkish action, thereby sanctioning the extension of state criminal jurisdiction to the acts of foreigners committed outside the state's jurisdiction. International law had long sanctioned the extension of national criminal jurisdiction to the acts of nationals committed outside the jurisdiction. Blackmer v. United States, 284 U.S. 421 (1932). To attempt to counteract the effect of the Lotus decision, the International Convention for the Unification of Certain Rules Relating to Penal Jurisdiction in Matters of Collision, etc., Brussels, May 10, 1952, was prepared. There is also the International Convention for the Unification of Certain Rules Relating to Civil Jurisdiction in Matters of Collision, Brussels, May 10, 1952. The United States has not ratified either convention but they have been ratified or adhered to by Belgium, France, Greece, and the United Kingdom among the maritime nations. N. Singh, supra note 20, at 1131-36.

However Art. 11(1) of the 1958 Geneva High Seas Convention, supra note 199, incorporated the earlier Criminal Responsibility Convention by providing that no penal proceedings may be instituted against any person in the service of the ship except before the authorities either of the flag state or of the state of which such person is a national.

that such new treaty would be *de lege ferenda* rather than *de lege lata*. Traditional international law has recognized a defense of self-preservation somewhat similar to the defense of necessity in Anglo-American tort law. However, there is recognition of the balancing principle that a state asserting such defense may not use excessive force, that is, the force used must be in proportion to the threat received.

With respect to suits brought in its own courts, each nation determines to what extent it will waive its sovereign immunity, that is, under what conditions it will permit lawsuits against itself. In the United States and Britain there are provisions for government liability for maritime wrongs. However, these statutes usually have an exception for discretionary acts of the Executive and in Britain there is the further hurdle of an old precedent that would deny to alien interests the legal right to

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235. The case of *The Caroline* in 1837. 1 C. Hyde, International Law Chiefly as Interpreted and Applied by the United States 239 (1945). There, Canadian revolutionaries had chartered vessels to take supplies and ammunition across Lake Ontario from New York to Canada. Prior to sailing, a British force seized and destroyed the vessels. Although pleading self preservation in defense, the British Government made formal apology to the United States. Subsequently, Secretary of State Daniel Webster defined the defense of necessity as "instant, overwhelming, and leaving no choice of means and no moment for deliberation." 2 J. Moore, Digest of International Law 412 (1906). Today acts of self defense by states involving the use of armed force is controlled by the U.N. Charter art. 51 requiring immediate report of self defensive action to the Security Council. The analogous situation in tort law, that the qualified defense of necessity may justify acts violative of the rights of others is presented in *Ploof v. Putnam*, 81 Vt. 471, 71 A. 188 (1905) where plaintiff's entry upon defendant's land was caused by necessity through no "fault" of plaintiff and no damage had been done. Cf. *Vincent v. Lake Erie Transp. Co.*, 109 Minn. 456, 124 N.W. 221 (1910) where an element of fault was present in the defendant's necessity defense and there was physical damage to property. See *Keeton, Conditional Fault in the Law of Torts*, 72 Harv. L. Rev. 401 (1959). See also *Keeton, Trespass, Nuisance, and Strict Liability*, 59 Colum. L. Rev. 457 (1959).

236. The *Corfu Channel Case*, [1948] I.C.J. 15. Albania was held to be under a duty to give notice of the presence of a minefield in her territorial waters because of the right of innocent passage, but on the other hand, British naval vessels were held to have no right under the doctrine of self preservation to sweep minefields in Albanian territorial waters. In *The *I'm Alone*, 29 Am. J. Intl L. 329 (1935) a Joint Canadian-American Commission awarded Canada $25,000 for wrong to the Canadian flag arising from abuse of the right of hot pursuit by United States Coast Guard vessels.


proceed against the crown where the damage occurred outside British territory.\textsuperscript{239} Failure of these nations to provide a remedy for alien interests might thereby create an international claim on behalf of the flag state for denial of justice.\textsuperscript{240} Such claim would be initially handled at the diplomatic level but if, for example, the United States were to consent there might be an opportunity for the International Court of Justice at The Hague to give an opinion in the case.\textsuperscript{241} Government action of the type taken in the \textit{Torrey Canyon} case cannot be piracy since that word is now defined by the 1958 High Seas Convention as acts of violence or depredation committed for private ends.\textsuperscript{242}

The question of recovery of the costs expended in destruction of the vessel, prevention of pollution and clean-up of polluted beaches and wildlife is especially difficult in the United States and Britain because until now there has been no duty on the government acting as the sovereign to do this.\textsuperscript{243} This is quite apart from the question of the rights of the government as property owner to be compensated for losses to

\textsuperscript{239} Buron v. Denman, 154 Eng. Rep. 450 (Ex. 1848), an action brought by an alleged slave trader against the commanding officer of a British warship for destruction of plaintiff's property on the high seas, the principle being that, "those who owe no allegiance to the Crown may, save in British territory, be dealt with by the Crown as it pleases." J. Salmond, Torts 607 (14th ed. R. Heuston 1965). See also Meredith v. United States, 330 F.2d 9 (9th Cir.) cert. denied, 379 U.S. 867 (1964).


\textsuperscript{241} The International Court of Justice is the judicial organ of the United Nations established by statute annexed to the Charter of the United Nations. Proceedings in the court are between nations. Some states have accepted the "Compulsory Jurisdiction" of the court, however, others, including the United States, have accepted the jurisdiction of the court with reservations.

\textsuperscript{242} International Convention on the High Seas, supra note 199 at art. 15.

\textsuperscript{243} The argument that there can be no civil liability for the expenses of government prevention or clean-up is dependent on the absence of a duty to take such action. Under this reasoning, the government would be "officious intermeddlers." In traditional tort law there was no duty to come to the assistance of a person in peril. Even where performance had begun many courts required reliance and change of position with regard to the person imperilled. Lacey v. United States, 98 F. Supp. 219 (D. Mass. 1951), which held no government liability for the Coast Guard's failure to rescue where there was no evidence that Coast Guard attempts had reached a stage where other would-be rescuers were induced to cease operations. Cf. United States v. Lawter, 219 F.2d 559 (5th Cir. 1955). Under maritime law there is a duty to rescue ships on the high seas, Warshauer v. Lloyd Sabaudo S.A., 71 F.2d 146, 1934 A.M.C. 864 (2d Cir.), cert. denied, 293 U.S. 610 (1934), and seamen, Harris v. Pennsylvania R.R., 50 F.2d 866 (4th Cir. 1931), cf. Gardner v. National Bulk Carriers, Inc., 310 F.2d 284 (4th Cir. 1962), cert. denied, 372 U.S. 913 (1963). The 1966 Clean Waters Restoration Act created (or recognized) a right of the United States to recover clean-up expenses if the shipowner failed to remove it immediately. 33 U.S.C. 433(b) (1966). H.R. 14000, 90th Cong., 1st Sess., proposes to give this right to other pollution claimants.

The common law abhorrence of officious intermeddlers or volunteers is not found in civil law systems where clean up expenses probably can be recovered under the doctrine of unjust enrichment (\textit{Negotiorum Gestio}). See C. Civ. art. 1371 (66 ed. Petits Codes Dalloz 1967).
beachfront property of which it is the title holder. Legislation is now being prepared in the United States which will ensure the government’s rights against the shipowner for these costs, enforceable by a maritime lien and not subject to the limitation of liability act.244

Proposals to change the shipowner’s right to limit his liability to the maritime venture (in American law the owner’s interest in the vessel and pending freights) have ranged from the proposal to fix a very high ceiling, possibly $30,000,000, to a demand for retention of the status quo if the scope of liability is to be increased. A middle ground, which has some support and seems to be the most reasonable proposal, is the proposal to shift the basis for computing the limitation tonnage from the present $60.00 per vessel’s registered ton to $60.00 per vessel’s deadweight ton.

Any effective remedy for non-maritime interests should guarantee the ready availability of the fund lest there be any delay in preventive or clean-up action. This could be accomplished by compulsory vessel insurance which would establish the fund for pollution claimants in the nation where the damage occurred. If two or more nations’ coasts were damaged the fund could be apportioned between them, or there could be a system for determining priority for the establishment of one fund to be distributed according to uniform rules which would supersede conflicting national legal principles. Compulsory insurance could be enforced by denying entry or clearance to uninsured vessels.245

Since oil pollution created the public outcry the question which must eventually be faced is whether a new international agreement should be restricted to oil pollution or should provide that all cargoes capable of causing pollution should be included, leaving it to the insurance industry to determine which cargoes must pay the greatest premium. Other proposals have called for an agreed list of noxious cargoes or for a broad definition of ultrahazardous cargoes which would thereby eliminate the necessity for frequent revision of a base list to keep step with industrial developments. In any event, the scheme which is now devised for oil pollution will undoubtedly be a prototype for future international legislation on other types of entrepreneurial liability. The situation in the oil

244. H.R. 14000, 90th Cong., 1st Sess. (1967) ; see note 154 supra.
transport industry seems to demand a breaking of new ground in civil liability and state responsibility, but political and economic considerations may render international agreement impossible.

VIII. Recent Developments

A. United States Legislation

The Second Session of the 90th Congress considered three relevant bills: S. 2760 and H.R. 14000 to amend the Oil Pollution Act of 1924 to delete the "gross negligence" requirement and impose strict liability, to insure a cause of action for the government undertaking clean-up or pollution prevention measures and to take away the shipowners' right to limit liability for these oil pollution damages; and H.R. 15906 to amend the legislation on the contiguous zone. The Senate passed S. 2760 on December 12, 1967. The opposition of the Maritime Law Association of the United States to the legislation was expressed in its meeting of May 3, 1968. Subsequently amendments were made to H.R. 14000 to restore fault liability but delete the requirement for proof of gross negligence for the civil penalty, although the criminal penalty would still require willful violation. The burden of proof to establish absence of fault would shift to the shipowner and the total liability could be limited to $5,000,000. The Senate accepted these changes and made some minor amendments as reflected in S. 3206. Conference agreement was achieved on the next to last day of the session but Congress adjourned on October 14, 1968 without acting. Accordingly, the legislation must be reintroduced at the 91st Congress convening in January, 1969.

B. C.M.I.

The Preliminary Report of the International Subcommittee chaired by Lord Devlin calling for absolute liability, compulsory insurance and a limitation fund based on deadweight tonnage of cargo has not been approved by the Majority of the Subcommittee. The C.M.I. circulated a questionnaire of the opinions of the member associations with respect to need for change, nature of liability, limitation of liability, compulsory insurance and governmental extra-judicial compensation. Eighteen national associations responded to the questionnaire. Associations in Italy, France, Spain, Argentina and Yugoslavia favored strict liability, however, Yugoslavia would impose the liability jointly and severally on cargo and ship with limitation determined by the deadweight tonnage of the cargo. France would differentiate between private individuals and the state as claimants and require the state to prove fault. Associations

246. See notes 17, 43, 90 and 226 supra.
in Norway, Finland, The Netherlands, Belgium, Greece and the United States would preserve the existing fault liability, but Norway and Finland found the idea of extra-judicial governmental compensation attractive. Belgium and Greece would approve compulsory insurance and Greece would give direct action against the insurer. Sweden would impose liability without fault on cargo with a limitation of liability on a set figure per ton of petroleum cargo. The middle ground was taken by associations in Denmark, Federal Germany, Japan, the United Kingdom, Switzerland and Ireland which wished to preserve fault liability with a shift in the burden of proof to the shipowner to establish absence of fault. This last position was adopted by the Subcommittee in its draft.240 This draft convention will be presented before the Plenary Session of C.M.I. at its sessions to be held in Tokyo in March-April 1969. This draft has also been forwarded to IMCO.

C. IMCO

Working Group I of the IMCO Legal Committee has been working on the Public International Law questions regarding control over high seas pollution.250 It has principally considered questions of the right of coastal states to take action to prevent pollution and strengthening of surveillance, enforcement and control provisions in the 1954 International Oil Pollution Convention. Because of failure of some important maritime states to ratify the 1958 Contiguous Zone Convention a new convention might be required to insure the right of states to take preventive action. Since it might be impossible to obtain agreement as to whether such convention were de lege ferenda or de lege lata, it will necessarily be hard to draft.251 It has also not been possible to obtain agreement on expansion of the convention to other pollutants, extension of the treaty system from the high seas to territorial waters and methods of dispute resolution. Nevertheless, agreement has been achieved on some important questions and a Draft convention concerning the Right of Coastal States to Take Action to Forestall Pollution has been prepared, insuring that coastal states "may take such measures as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat of pollution of the sea [by oil] following upon a maritime casualty on the high seas, or acts related to such a casualty, which may reasonably be expected to result in major or catastrophic consequences.252 Action is conditioned on consultations and notification of affected states and interests unless there is an extreme emergency, in which circumstance the measures taken must be propor-

249. See note 221 supra.
250. See notes 232-44 supra.
251. See note 201 supra.
252. IMCO Doc. LEG III/2 18 June 1968.
tionate to the threatened damage. Further work will be necessary before the draft convention can be presented to the IMCO Assembly in the fall of 1969.

Working Group II is now beginning to work on the private law questions regarding pollution and is considering the draft convention prepared by C.M.I.253 In its discussions governments (including the United States) seem to support an absolute liability, although even their proposals to except "Acts of God" or "Acts of War" would result in a liability close to the strict liability (or fault liability with presumption of negligence) endorsed by C.M.I. A large minority of states now favor the strict liability. However, many states support limitation of liability in accordance with the 1957 Brussels Convention.254 The C.M.I. draft will be further considered prior to the meeting of the IMCO Legal Committee in May, 1969 which will prepare a final draft for submission to the IMCO Assembly in the fall of 1969, and it can be expected that an international diplomatic conference would be convened shortly thereafter. It is significant to note that IMCO does not intend to abdicate its function on the private law questions. The 1969 Meeting will probably consider the draft treaties on both public and private law questions arising out of the Torrey Canyon disaster. During the intervening time the major oil companies (most of whom are self-insurers)255 are formulating a proposal to establish an association to provide security to governments up to $10,000,000 for the costs of pollution prevention and clean-up expenses caused by negligent spills.

IX. Conclusion

For the past seventy years the effort to unify maritime law through multi-lateral conventions has proceeded by two separate paths: technical matters principally concerned with marine safety were prepared by the operating men with government participation at an early stage; matters of civil liability and public policy were determined only by lawyers, insurers and shipowners in C.M.I. In the period of intense public concern about oil pollution there has from the beginning been an exchange of ideas between shippers, insurers, lawyers, governments and the public. These cooperative efforts point the way to a most desirable change, unification of effort by IMCO and C.M.I. Even if no new international convention is ever produced, the present debate will have achieved a laudable goal if this unity can result. There has never been a permanent international maritime organization with supervision over all aspects of international maritime trade and transport. It is needed now.

253. See note 221 supra.
254. See note 35 supra.
255. See note 19 supra.