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Myres S. McDougal

Norbert A. Schlei

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THE HYDROGEN BOMB TESTS IN PERSPECTIVE: LAWFUL MEASURES FOR SECURITY

MYRES S. McDOUGAL† and NORBERT A. SCHLEI††

"Unless a trustworthy and universal agreement upon disarmament, conventional and nuclear alike, can be reached and an effective system of inspection is established and is actually working, there is only one sane policy for the free world in the next few years. That is what we call defense through deterrents. This we have already adopted and proclaimed."

—SIR WINSTON CHURCHILL 1

THE LEGAL POLICY ISSUE

On January 31, 1950, President Truman reluctantly ordered the Atomic Energy Commission to proceed with development of the hydrogen bomb.² Political leaders of every shade of belief supported the decision, as did the American public, most statesmen of the western world, the Vatican, and others.³ The decision was taken, and was generally approved, because the Soviet Union had refused to agree to a workable scheme of international control of armaments, and had thus given the United States no choice but to engage in an arms race of unprecedented magnitude and intensity. The security of the United States and of the whole free world depended, it was almost universally agreed, upon victory or at least parity in this race. Subsequently it became known that the Soviet Union had begun its own thermonuclear research in 1945, and was ahead of the west in the technological struggle at the time of President Truman’s decision.⁴

†William K. Townsend Professor of Law, Yale Law School.
††Member of the Editorial Board, Yale Law Journal.

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[Editor’s note: Since this article constitutes in part a reply to the immediately preceding article, it is appropriate to note that it was not possible to make it available to Dr. Margolis before publication.]

The first thermonuclear bomb tests conducted by the United States, in March and April of 1954 in the Pacific Proving Grounds, demonstrated the enormous destructive power of the new weapon, and caused great concern the world over. Through a series of miscalculations, a number of Marshallese, Japanese, and Americans were injured by the test of March 1st, and the test series as a whole in some measure disrupted the activities of a segment of the Japanese fishing industry. As might have been foreseen, the Soviet Union denounced the tests, characteristically couching its invective in the vocabulary of law, and appealing to the abhorrence, shared by all peoples of the world, of the destructive power of the weapon. The United States promptly took all possible measures to repair the damage done, and expressed its extreme regret that the mishaps had occurred. After full compensation had been paid or promised to the victims of the test accidents, and the Trusteeship Council had accepted United States assurances that similar accidents could and would be prevented in the future, the spurious legalisms of the Soviet Union might appropriately have been dismissed with a minimum of consideration. Unfortunately, however, certain neutral statesmen and impartial observers also have questioned the legality of these tests, appealing both to certain customary prescriptions of the international law of the sea and to certain provisions of the United Nations Charter and of the Trusteeship Agreement, under which the United States holds the Pacific Islands.

In accord with the overwhelming demands of all peoples who value not merely human dignity but even human survival, the United States is continuing to make every practicable effort to achieve world disarmament and to outlaw nuclear weapons. In the contemporary context of failure to achieve

7. A $2,000,000 payment to Japan, "without reference to the question of legal liability" was agreed upon Jan. 4, 1955. N.Y. Times, Jan. 5, 1955, p. 6, col. 1. Settlement of all Marshallese claims was reported in immediate prospect. Communication from Deputy High Commissioner, Trust Territory of the Pacific Islands, to the Yale Law Journal, Feb. 24, 1955, on file in Yale Law Library.
9. For assertions that the tests violate the law of the sea, and collection of citations, see Margolis, The Hydrogen Bomb Experiments and International Law, 64 YALE L.J. 629, 629 n.3, 650, 640 (1955) (hereinafter cited as Margolis); Laurents, Experiment in Annihilation, 5 CONTEMP. ISSUES 214 (1954); N.Y. Times, March 26, 1954, p. 5, col. 5 (Japanese Seamen's Union). See also the remarks of the Earl Jowett in 186 H.L. Deb. (5th Ser.) 889-90 (1954). For assertions that the tests contravene the Charter and Trusteeship Agreement, see Margolis, p. 645; remarks of the Soviet and Indian representatives in the U.N. Trusteeship Council and its Committee on Petitions, cited supra note 5.
10. For an account of U.S. efforts from 1945 to 1950 to attain international control of atomic weapons, see JOINT COMMITTEE ON ATOMIC ENERGY, THE HYDROGEN BOMB 629, 629 n.3, 650, 640 (1955) (hereinafter cited as Margolis); Laurens, Experiment in Annihilation, 5 CONTEMP. ISSUES 214 (1954); N.Y. Times, March 26, 1954, p. 5, col. 5 (Japanese Seamen's Union). See also the remarks of the Earl Jowett in 186 H.L. Deb. (5th Ser.) 889-90 (1954). For assertions that the tests contravene the Charter and Trusteeship Agreement, see Margolis, p. 645; remarks of the Soviet and Indian representatives in the U.N. Trusteeship Council and its Committee on Petitions, cited supra note 5.
The basic issue in legal policy thus joined, in this conflict between the claim of the United States to conduct the hydrogen bomb tests and the demands of others for their discontinuance, is, therefore, whether the United States and its associates are authorized by relevant world prescription to continue measures which they deem essential to their defense or whether such measures must be condemned as unlawful, either through derivations from the customary international law of the sea or by application of special commitments undertaken in the United Nations Charter and the Trusteeship Agreement.

The Facts

The Trust Territory of the Pacific Islands is composed of 98 island groups (2000 islands) with a total dry land area of 846 square miles, spread over some 3,000,000 square miles of the North Pacific Ocean. The United States governs the Territory as a strategic trusteeship territory under an agreement with the United Nations which entered into force July 18, 1947.

Testing of atomic weapons in the Pacific began with the test series conducted at Bikini Atoll in July 1946 before the Pacific Islands became a


13. Hearings before the Senate Committee on Foreign Relations on S.J. Res. 143, 80th Cong., 1st Sess. 2 (1947); U.S. NAVY DEP'T, TRUST TERRITORY OF THE PACIFIC ISLANDS 1, 77 (1948) (apparently giving total area of inhabited islands only).

14. 61 STAT. 3301, T.I.A.S. No. 1665, 8 U.N. TREATY SER. 189 (hereinafter cited as TRUSTEESHIP AGREEMENT).

Trust Territory. On July 23, 1947, the AEC announced establishment of the Pacific Proving Grounds, and in December chose Eniwetok Atoll, near Bikini in the Marshall Islands, as a site for subsequent testing activities. The U.N. Security Council was advised by the United States that the atoll and its territorial waters had been closed for security reasons, in accordance with Article 13 of the Trusteeship Agreement, in order to enable the AEC to conduct atomic tests.

Because of the anticipated danger to ships approaching too near to Bikini while tests were in progress in 1946, mariners were advised through normal channels, during the months May through August, that the waters in an area of approximately 180,000 square miles surrounding the atoll should be avoided. With the removal of testing operations to Eniwetok, mariners were warned, in January 1947, and thereafter, that a zone of approximately 30,000 square miles would be dangerous to all ships, aircraft, and personnel, and at times of actual danger the area was patrolled to ensure that no ships or aircraft entered inadvertently. In May 1953, the warning area was expanded to include Bikini and its surrounding waters, and from that date until the most recent test series, the warning area included approximately 50,000 square miles. In March 1954, when it had become apparent that the warning area then in effect was inadequate, it was extended to include a total area of approximately 400,000 square miles. On May 21, 1954, 57 days later,

22. Id., No. 14, para. 1685 (April 3, 1954). The warning was issued by radio on March 26, 1954.

It should be emphasized that the actual blast effects of the bomb did not by any means extend over this area, or even the smaller areas previously in effect. The fallout of radioactive materials from a thermonuclear explosion, however, may contaminate an area up to forty miles in width, extending downwind approximately 220 statute miles. See generally Statement by Lewis L. Strauss, Chairman, USAEC Press Release, Feb. 15, 1955, pp. 1-3; N.Y. Times, April 1, 1954, p. 16, cols. 4, 6.

The March-May warning area extended 450 nautical miles from Bikini in a sector extending from east (095°) to west by southwest (240°). This larger warning area was
all warning zones were canceled.\textsuperscript{23} Bikini and Eniwetok, and their territorial waters, remained closed areas.\textsuperscript{24}

The magnitude of the test explosion of March 1, 1954, was underestimated by half, and the error in advance calculations was compounded by erroneous wind predictions.\textsuperscript{25} This series of miscalculations resulted in minor injuries to twenty-eight Americans and approximately eighty-two Marshallese on islands outside the warning zone.\textsuperscript{26} Injuries which eventually became serious were suffered by the twenty-seven man crew of the Japanese fishing craft \textit{Fukuryu Maru}, which apparently lay some fourteen miles clear of the warning zone at the time of the explosion, and did not arrive in Japan until some weeks later.\textsuperscript{27}

The extent to which fish contaminated by radioactive fallout were found outside the immediate vicinity of the tests is not clear.\textsuperscript{28} In any event, Japanese authorities inaugurated a system of monitoring for radioactivity the catches of ships reaching port from a wide area in the North Pacific, and condemned a considerable quantity of fish.\textsuperscript{29} None of the rumors of injury from contaminated fish have been substantiated, and it seems certain that none ever occurred.

\textsuperscript{23} Marshallese, a figure often given as the number injured, were evacuated from Rongelap and Utirik Atolls, but the 154 Utirikese were unharmed. The Rongelapese were treated for depilation and superficial burns at Kwajalein, then resettled on Majuro Atoll in June. All physical effects had disappeared by July, and no permanent after-effects are expected. The Utirikese were returned to their homes in May, as soon as the AEC could determine that the atoll was not radioactive. \textit{Ibid.}

\textsuperscript{24} For population statistics, see \textit{Standing Committee on Petitions, U.N. Trusteeship Council, 87th Report 5 (Doc. T/L 510) (1954).}

\textsuperscript{25} Admiral Strauss' report in \textit{N.Y. Times}, April 1, 1954, p. 20, col. 1.

\textsuperscript{26} \textit{Ibid.}; Communication from Deputy High Commissioner, Trust Territory of the Pacific Islands, to the \textit{Yale Law Journal}, Feb. 24, 1955, on file in Yale Law Library.

\textsuperscript{27} Arnold, \textit{Effects of the Recent Bomb Tests on Human Beings}, 10 \textit{Bull. Atom. Scientists} 347 (1954). Some months later, one of the seamen died. Arnold expresses the opinion that the survival of the others, after going so long without treatment after so heavy and prolonged exposure to radiation, is "due to remarkable medical efforts." \textit{Ibid.}

Arnold's account suggests that the eventual seriousness of the seamen's injuries was attributable to the fact that they continued to be exposed to radiation for some two weeks on the return trip to Japan, and were not all hospitalized until four weeks after their initial exposure. \textit{Ibid.}

\textsuperscript{28} For analysis of conflicting reports, see note 235 infra. We here assume, for purposes of argument, that some radioactive fish were caught outside the warning zone, and that safety would require monitoring deep-sea catches from a wide area in the North Pacific Ocean for radioactivity after each test.

\textsuperscript{29} Arnold, \textit{supra} note 27, at 347.
The United States meanwhile took swift action to mitigate the effects of the test mishaps. Injured Marshallese were given immediate medical care at naval facilities on nearby Kwajalein Atoll; expert medical personnel were rushed to their assistance, and to that of the injured Japanese fishermen as soon as their plight became known; and prompt assurances were given that all financial loss would be made good.30 Two million dollars has been paid to Japan for damages resulting from the tests, including both personal injuries suffered by the crew of the *Fukuryu Maru* and damage to the Japanese fishing industry.31 Settlement of all Marshallese claims is in immediate prospect.32

The United States has stated that if it finds it necessary to conduct further tests, it will take all necessary precautions to avoid further injury.33 Presumably among the measures taken would be the establishment of a warning area comparable in size to that in effect during April and May 1954, and temporary evacuation of the atolls nearest the test area. In this connection, it should be noted that such a warning area would extend some hundreds of miles beyond the point at which injuries were sustained by the crew of the *Fukuryu Maru*,34 and that evacuation of every atoll affected by the tests of 1954 would temporarily displace 236 people from a total land area of 4.01 square miles.35


32. Communication from Deputy High Commissioner, Trust Territory, supra note 26.


34. See notes 22-27 supra and accompanying text.

35. For land and population data, see U.S. Dep't of Interior, 1952 Report on the Administration of the Trust Territory of the Pacific Islands 68 (1953).

Evacuation of an area 260 statute miles in radius surrounding Eniwetok Atoll would affect only Ujelang Atoll, with a population of 163 and a land area of .67 square miles. *Ibid.* The possibility that Ujelang, some 130 miles away from Eniwetok, would be affected by the fallout of a thermonuclear explosion (40 miles in width, see Statement by Lewis L. Strauss, Chairman, USAEC Press Release, Feb. 15, 1955, p. 2), would amount to less than one chance in twenty, even assuming total failure of wind predictions. The inhabitants could, therefore, very probably be returned to their homes with perfect safety immediately after completion of a test series.

Since its inception in 1946, at Bikini, the nuclear testing program has necessitated the relocation, temporary or relatively permanent, of a total of 540 Marshallese, from islands with a total area of nine square miles. See note 26 supra; U.S. NAVY DEP'T, TRUST TERRITORY OF THE PACIFIC ISLANDS 77 (1948). The land area of Bikini is 2.87 square miles, *69 World Almanac* 519 (1954), and that of Eniwetok 2.26 square miles. N.Y. Times, Dec. 2, 1947, p. 24, col. 5. All land taken has been replaced from the public domain, and full compensation has been paid for all financial loss. U.S. DEP'T OF INTERIOR, 1952 Report, op. cit. supra, at 35; Standing Committee on Petitions, supra note 33, at 6-7.
The Attack upon Legality

Those who attack the legality of the Pacific tests ordinarily begin by implying that any use of atomic and thermonuclear weapons would be unlawful and that this conclusion has some relevance to the legality of the tests.36 Their principal attack is, however, cast in terms of so-called "traditional and universally accepted rules" said to be found in the international law of the sea,37 and an attempted "inescapable" interpretation of the U.N. Charter and the Trusteeship Agreement for the Former Japanese Mandated Islands.38 The most comprehensive and detailed elaboration of this attack appears in the immediately preceding article by Dr. Emanuel Margolis.39

"Freedom of navigation," "freedom of fisheries," "freedom to lay submarine cables," and "freedom of aerial movement," Dr. Margolis argues, are "corollaries" of the "absolute rule" of "freedom of the seas."40 Although there are some "general police powers" which may be exercised on the high seas "in time of peace," and some "special police powers" which may be acquired by treaty, the bomb tests and the warning areas they make necessary fall within neither class.41 They are, therefore, forbidden by the "clear rule of law" that "no state can exercise sovereignty over the high seas in time of peace."42 It is further argued that the tests' injurious effects upon fishing, outside the zone of immediate danger, violate some ill-defined international prescription against pollution, or at least do not measure up to "justice and equity," and that the tests must therefore be stopped.43

Finally, it is asserted as an "inescapable" conclusion that testing of nuclear weapons by the United States in the Pacific Proving Grounds is "at variance" with the "unqualified imperatives" of Article 73 of the U.N. Charter and Article 6 of the Trusteeship Agreement.44 By selective reading from that article of the Charter, it is noted that member states there recognize the principle that the interests of the inhabitants of non-self-governing territories "are paramount," and accept as a "sacred trust" the obligation to promote the "well-being" of the inhabitants and to this end to ensure their protection against "abuses."45 By similar exegesis upon the Trusteeship Agreement, it is added that the Administering Authority undertook to promote the economic development of the inhabitants by "the development of fisheries," to protect the inhabitants against "the loss of their lands and resources," and

37. Id. at 636.
38. Id. at 643-45.
40. Id. at 630, 634.
41. Id. at 634-36.
42. Id. at 635.
43. Id. at 641-43.
44. Id. at 643-45.
45. Ibid.
to protect the health of the inhabitants." It is argued, further, that these provisions are not, at least not within the same section, "diluted" by the phrase: "subject to the requirements of security." It is then stated as a fact that injury to persons and property in connection with tests is "bound to occur," and that the tests therefore violate the Agreement. But even if danger of injury could be eliminated the tests would still be illegal, it is said, because the necessary safety measures would violate the agreement in that they would involve "removing [the inhabitants] from their land," and "depriving them of fishing grounds for months at a time." It makes no difference to this conclusion that the Agreement gives the administering authority "full powers of administration, legislation, and jurisdiction" over the territory, and the power to "establish naval, military and air bases and to erect fortifications" in the territory, as well as other broad powers with respect to security. By some curious criterion of construction, none of the powers of the administering authority are relevant in ascertaining the extent of its duties: the latter are "unqualified imperatives."

The United States' only alternatives, these critics conclude, are to cease further testing altogether, or to conduct tests in a manner which is "compatible with the basic general tenets of international law, and the specific provisions of the United Nations Charter and the Trusteeship Agreement." This can be done "only . . . by conducting them . . . within the . . . United States, or Alaska, or somewhere within the Arctic Region in the 'sector' north of Alaska."

It is our belief that all of these arguments are unsound in law and in policy, and we propose to refute them seriatim.

The Regime of the High Seas—a Process of Community Protection of Unilateral Claims

Throughout the centuries of its development, one may observe the regime of the high seas as, not a static body of absolute rules, but rather a living,

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46. Ibid.
47. Ibid.
48. Id. at 645 and n.86.
49. Id. at 645.
51. Margolis, p. 644. For a comparable line of argument, see the Soviet and Indian representatives' remarks in U.N. Trusteeship Council Off. Rec., 14th Sess., 561st meeting 243-47 (1954). Mr. Singh of India emphasized that the conducting of hydrogen bomb tests was not specifically listed in the Agreement as one of the things that the Administering Authority could do in the territory. Id. at 246.
52. Margolis, p. 646.
53. Id. at 646-47. See also Arnold, Effects of the Recent Bomb Tests on Human Beings, 10 Bull. Atom. Scientists 347, 348 (1954). Margolis, p. 647 n.94, asserts that an Arctic sector has been "claimed" and "occupied" by the United States.
54. The term "high seas" is commonly used both in a factual sense to describe all
growing, customary law, grounded in the claims, practices, and sanctioning expectations of nation-states, and changing as the demands and expectations of decision-makers are changed by the exigencies of new social and economic interests, by the imperatives of an ever developing technology and by other continually evolving conditions in the world arena. From the perspective of realistic description, the public order of the high seas is not a mere body of rules, but a whole decision-making process, including both a structure of authorized decision-makers and a body of highly flexible, inherited prescriptions: it is a continuous process of interaction in which the decision-makers of individual nation-states unilaterally put forward claims of the most diverse and conflicting character to the use of the world’s seas, and in which other decision-makers, external to the demanding nation-state and including both national and international officials, weigh and appraise these competing claims in terms of the interests of the world community and of the rival claimants, and ultimately accept or reject them.

The competing claims asserted by nation-state decision-makers to the use of the high seas, the events to which the “regime of the high seas” is a response, vary enormously in the comprehensiveness and particularity of the interests sought to be secured, in the location and size of area affected, and in the duration of the claim. They range from the comprehensive and continuous claim to all competence in the “territorial sea,” through the continuous but limited claims to navigation, fishing, and cable-laying upon the “high seas,” to the relatively temporary and limited claims to exercise authority and control beyond territorial boundaries for a vast array of national purposes: security and self-defense, enforcement of health, neutrality, and customs regulations, conservation or monopolization of fisheries, exploitation of the sedentary fisheries and mineral resources of the seabed and continental shelf, the conducting of naval maneuvers, military exercises, and other peacetime defensive activities, and so on.55

It need cause no confusion that the authoritative decision-makers put forward by the public order of the high seas to resolve all these competing claims include, in addition to judges of international courts and other international officials, those same nation-state officials who on other occasions are themselves claimants—that, in other words, the same nation-state officials are...
alternately, in a process of reciprocal interaction, both claimants and external decision-makers passing upon the claims of others. This duality in function ("doublémente fonctionnel") merely reflects the present lack of specialization and centralization of policy functions in international law generally. Similarly, it may be observed, without cause for depreciation or shocked averting of the eyes, that these authoritative decision-makers projected by nation-states for creating and applying a common public order, honor each other's unilateral claims to the use of the high seas not merely by explicit agreements but also by mutual tolerances—expressed in countless decisions in foreign offices, national courts, and national legislatures—which create expectations that power will be restrained and exercised in certain uniformities of pattern. This, too, is but the process by which in the present state of world organization most decisions about jurisdiction in public and private international law are, and must be, taken.

The over-riding policy which infuses this whole decision-making process, perhaps it requires explicit statement, is not the negation of use, but the encouragement of use. The major policy purpose which inspires the regime of the high seas is not merely the negation of restrictions upon navigation and fishing but also the promotion of the most advantageous—that is, the most conserving and fully utilizing—peaceful use and development by all peoples of a great common resource, covering two-thirds of the world's surface, for all contemporary values. The concept of a common and reciprocal interest in fullest utilization underlies the whole flow of decision.

56. Schiffer, The Legal Community of Mankind 204 (1954), expounding the views of Georges Scelle.

57. When Dr. Margolis insists that "special police powers are created only by treaty," Margolis, p. 634, he over-emphasizes the role of agreement. The great bulk of particular claims to authority and control upon the high seas is honored and protected, as the text below will abundantly demonstrate, not by explicit bilateral or multilateral agreements but by reciprocal tolerances expressed in the continuous flow of decisions about such claims.


59. Appropriate emphasis upon a positive policy of promoting, rather than restricting, use may be found in Lauterpacht, Sovereignty over Submarine Areas, 27 BUIR. Y.B. INT'L L. 376, 378, 407 et seq. (1950); and in the U.N. Secretariat, Regime of the High Seas, U.N. Doc. No. A/CN.4/32, at 10, 12 (1950) (memorandum to the Int'l Law Comm'n) (hereinafter cited as Gidel, Memorandum). (It is widely known that this im-
For pursuing this major policy purpose in regulating the maze of conflicting claims which confront them, the authoritative decision-makers of the world community have elaborated that comprehensive body of complementary prescriptions which makes up "the regime of the high seas." One set of these prescriptions, that generally referred to under the label of "freedom of the seas," was formulated, and is invoked, to honor unilateral claims to navigation, fishing, cable-laying, and other similar uses.6 The other set, that which includes the prescriptions summed up in a wide variety of technical terms such as "territorial sea," "contiguous zones," "jurisdiction," "continental shelf," was formulated, and is invoked, to honor all the great variety of claims, both comprehensive and particular, which may interfere, in greater or less degree, with navigation and fishing.61 To the initiated it is not surprising that the technical terms in which both sets of these prescriptions are formulated are at the highest level of abstraction and, hence, ambiguous in highest degree. A decision-maker confronted with the task of deciding upon the lawfulness of a challenged claim to the use of the seas must create meaning for these terms and must turn to other sources for detailed policy guidance. The sources to which such a decision-maker, like the judges of the International Court of Justice, is authorized, and may be required by the necessities of policy clarification, to turn include not only "international conventions, whether general or particular, establishing rules expressly recognized by the contesting states," but also "international custom, as evidence of a general practice accepted as law," "the general principles of law recognized by civilized nations," "judicial decisions and the teachings of the most highly qualified publicists of the various nations," and considerations "ex aequo et bono."62

The great ambiguity of the constituent technical terms in the principal prescriptions and the wide variety of authoritative policy sources accorded to the

60. See text at notes 68-84 infra.

61. See the sections on "Territorial Sea," "Contiguous Zones," and "Security" claims, text at notes 85-103, 104-43, 144-91 infra, respectively.


It is our purpose in this explicit and comprehensive listing of authorized sources of policy to emphasize that the authoritative decision-makers of the public order of the high seas are not confined in their determinations of lawfulness either to explicit agreements between the parties or to inferences from prior customary behavior, but may also take into account a great variety of principles, precedents, analogies, and considerations of fairness. The role established for such a decision-maker is not that of the automaton but rather of the creative deliberator, who is permitted and expected to draw upon the wisdom of the past, but is not required to respond compulsively to new problems in living contexts as if they were old problems in dead contexts.

Gidel refers to the "wider significance" of "the unilateral act" and describes it as "one of the means by which international custom is formed." Gidel, Memorandum 90. It is not, however, necessary in accurate description of the regime of the high seas to take the position...
authorized decision-makers have given, and continue to give, to such decision-makers, a very large discretion to adjust particular controversies in terms of the multiple variables peculiar to each controversy and thus to promote the overriding policy of full-utilization. The degree to which decisions for the last century and a half, because of common interest in the sea as an efficient medium of communication and as an abundant source of food, have given a high priority to claims for freedom of navigation and fishing, is sufficiently emphasized in conventional literature.\textsuperscript{63} It is equally common knowledge, however, though on occasion reluctantly admitted, that a parallel flow of decisions has protected a great variety of claims to authority and control on the high seas for the protection of security, health, revenue laws, economic welfare, and so on, even against protests that they interfere with navigation and fishing, and that a still higher priority is accorded to claims of “sovereign” competence in “territorial seas” despite such interference.\textsuperscript{64} It has been recognized in decision, if not in the justifications summarized in the textbooks, that all of these claims, those to navigation and fishing and those that may interfere, are of a common character: they are all unilateral assertions by particular claimants to individual use of a great common resource and all such assertions are affected in equal degree—navigation and fishing no more or no less than the others—with community interest in fullest utilization and conservation, and with national interest, which, though possibly varying with geographical propinquity in particular instances, is in the sum of all instances common to all claimants.\textsuperscript{65} The technical prescriptions of the “freedom of the seas,” on the one hand, and of “territorial sea,” “contiguous zone,” “juris-

that unilateral claims to the use of the seas of themselves establish their own lawfulness. It is not the unilateral claims to use but rather the tolerances of external decision-makers, including the specific decisions of international officials, which create the expectations of pattern and uniformity in decision, of practice in accord with rule, commonly called law.

An excellent recent example of the interrelation of roles, which we here seek to describe, between unilateral claim and external decision is found in the Anglo-Norwegian Fisheries Case, Judgment of Dec. 18, 1951, [1951] I.C.J. Rep. 116. In this case Norway asserted claims which could not be justified by reference to either explicit agreement or widely accepted custom, see generally Waldock, The Anglo-Norwegian Fisheries Case, 28 Barr. Y.B. Int’l L. 114 (1951), but by drawing upon all relevant sources of policy and a great variety of considerations in the context, the International Court of Justice concluded, despite the protests of other nation-states, that Norway’s claims were lawful. This decision by the International Court of Justice merely exemplifies the process of decision-making—the process by which policies are both created and applied—common to the whole regime of the high seas, whether decision is by international or national officials and whether the claims are important or unimportant, and whether unique or commonplace.

63. See text at notes 68-84 infra.
64. See text at notes 85-103, 104-43, 144-91 infra.
65. Our purpose here is to emphasize that it is impossible in accurate description to distinguish some claims as “unilateral” and some as not, and difficult, if not impossible, in rational preference to order claims in some hierarchy of degrees of community interest valid for all problems and contexts. The relevance to policy of propinquity of use to shore will be assayed below. See note 204 infra. For discussion of traditional distinctions, see Mouton, The Continental Shelf 185 (1952).
diction,” and so on, on the other, are not arbitrary, inelastic dogmas, but rather are highly flexible policy preferences invoked by decision-makers to record or justify whatever compromise or adjustment of competing claims they may reach in any particular controversy. And for all types of controversies the one test that is invariably applied by decision-makers is that simple and ubiquitous, but indispensable, standard of what, considering all relevant policies and all variables in context, is reasonable as between the parties.  

The all-pervading importance of this test of “reasonableness” for resolving competing claims to authority and control on the high seas has been well indicated by Professor H. A. Smith, who, though as spokesman for official British policy is most opposed to extension of national power beyond territorial seas, writes:

“The law of nations which is neither enacted nor interpreted by any visible authority universally recognized, professes to be the application of reason to international conduct. From this it follows that any claim [to assert power outside the 3-mile limit] which is admittedly reasonable may fairly be presumed to be in accordance with law, and the burden of proving that it is contrary to law should lie on the state which opposes the claim.”

Without accepting Professor Smith’s explanation for the use of reasonableness as a criterion, one may yet applaud the accuracy of his summary of decision-makers’ perspectives.

The sections of this article which immediately follow are intended to suggest the broad outlines of relevant world prescriptions regulating the use of the high seas and to indicate in greater detail the process of decision. It will be observed that the emphasis of decision-makers upon “reasonableness” as a criterion has required them to accord a very high deference to claims to security, as against claims to unhampered navigation and fishing, in contexts of high expectations of violence. It will be made clear that the hydrogen bomb tests contravene none of the fundamental policies which underlie the “freedom of the seas” and come easily within the policies which have in the past sanc-

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66. This generalization will be documented in detail throughout the five sections which follow. For exposition of the principle see Gidel, Memorandum, passim; Lauterpacht, Sovereignty over Submarine Areas, 27 Brit. Y.B. Int'l L. 376 (1950). See also Harvard Research Draft on Territorial Waters 333 et seq. (1929); Jessup, Law of Territorial Waters 91-101 and passim (1927); Masterson, Jurisdiction in Marginal Seas xiii-xviii, 375 et seq. (1929); Bingham, Juridical Status of the Continental Shelf, 26 Calif. L. Rev. 4 (1952); Briggs, Les Etats-Unis et la Loi de 1935 Sur la Contrebande—Etude de la Zone Contiguë et des Critères de Raisonnabilité, 20 Revue de Droit International et de Législation Comparée (hereafter cited as R.D.I.L.C.) 3d Ser. 217 (1939); Brown, Protective Jurisdiction, 34 Am. J. Int'l L. 112 (1940); Dickinson, Jurisdiction at the Maritime Frontier, 40 Harv. L. Rev. 1 (1926); Jessup, The Anti-Smuggling Act of 1935, 31 Am. J. Int'l L. 101 (1937); Masterson, The Hemisphere Zone of Security and the Law, 26 id. 860 (1940); Yntema, Validity of Hovering Legislation in International Law, in Hearings before the House Committee on Ways and Means on H.R. 5496, 74th Cong., 1st Sess. 82 (1935).

tioned the greatest variety of claims more seriously interfering with navigation and fishing. It will, therefore, be concluded that the relevant world prescriptions and the process of decision-making, taken as a whole, clearly enable, and perhaps even require, decision-makers external to the United States, whether national or international, to recognize and affirm that the hydrogen bomb tests are reasonable, and hence lawful, within the regime of the high seas.

THE GREAT RANGE OF UNILATERAL CLAIMS HONORED IN COMMUNITY PRACTICE

Claims to Navigation and Fishing: Freedom of the Seas

The concept of "freedom of the seas" entered the law of nations as a reaction against broad claims to territorial sovereignty over vast sea areas put forward by Spain, Portugal, England, and other states in the sixteenth and seventeenth centuries. The object of these claims was to monopolize fisheries, and trade with areas thought particularly rich in resources. Grotius and his successors entered the fray in behalf of their own states' unilateral claims to navigate, to trade, and to utilize the resources of the sea.68

The arguments Grotius asserted were as sweeping as the claims of his adversaries. No interference whatever with navigation was justified because effective occupation was impossible by the nature of the sea itself.69 The same principle was applicable to fisheries, not only because natural law denied property rights in the resources of the sea until they were reduced to possession, but for the additional reason that the resources of the sea were inexhaustible.70 Spain, Portugal, and England were guilty of monstrous greed, he said, because they could not possibly put to constructive use the vast areas they had claimed, but sought only to exclude others.71 The claim of the Dutch to free navigation and fishing, on the other hand, could not possibly interfere with free use of the same resources by others.72 It is familiar history that common interest in navigation and fishing triumphed over monopoly, and that the great principle of "freedom of the seas" became in this sense universally accepted.


69. For exposition and analysis of the reasoning, involving a distinction between ownership and sovereignty, by which Grotius reached his conclusions, see Fulton, op. cit. supra note 68, at 345 et seq.; Riesenfeld, Protection of Coastal Fisheries under International Law 15-18 (1942).

70. Fulton, op. cit. supra note 68, at 345; Riesenfeld, op. cit. supra note 69, at 12, 16.

71. Grotius, op. cit. supra note 68, at 38.

72. Ibid.
The natural law arguments put forward by Grotius have long since ceased to be persuasive, and nearly every fact from which he argued has significantly altered. It has long been clear that vast areas of the sea could in fact be occupied, in the sense that others could be effectively excluded by shore batteries, and by naval and air forces armed with modern weapons. Moreover, it is no longer true to say that complete freedom of navigation and fishing cannot possibly interfere with free use of the seas by others. Modern vessels, independent of wind and weather conditions, throng trade routes which follow the shortest and safest track between ports, and collisions are not infrequent. Vessels similarly interfere with the navigation of others by trawling, dredging, or engaging in dangerous naval maneuvers and military exercises, and they discharge oil waste that fouls beaches and destroys marine life. Contemporary technology has demonstrated that the resources of the sea are by no means inexhaustible, and more than once the free use of dangerously efficient new methods has threatened to destroy valuable fishery resources forever. Manifold national interests of critical importance no longer cease at the shore or near it, and have come to affect not only pirates, invading military forces and smugglers, but innocent passersby as well.

Yet despite the remarkable changes which have occurred since Grotius' time, the concept of "freedom of the seas" has not disappeared from world prescription because it still crystallizes one of the two complementary sets of sound community policies, each limiting the other, by which decision-makers resolve conflicting claims to incompatible uses of a common resource. To be sure, ships at sea are regulated by the rules of the road; ships that require space can get it by making appropriate signals, and governments disseminate warnings which enable merchant vessels to avoid naval ships engaging in dangerous maneuvers. Fishery conservation is increasingly enforced on the high seas by individual states, as are regulations designed to prevent pollution, and to implement the policies of individual states in innumerable other ways. But it remains true that the world community as a whole has an important,

73. HILBERT, INTERNATIONAL RULES OF THE ROAD AT SEA vii-viii (1938).
76. HILBERT, op. cit. supra note 73, passim; SMITH, op. cit. supra note 67, at 61-62. The courts of most nations assume jurisdiction over collisions occurring on the high seas irrespective of the nationality of the vessels. The Belgenland, 114 U.S. 355, 369 (1885); The Scotland, 105 U.S. 24, 29 (1881); Chartered Bank v. Netherlands Steam Navigation Co., 10 Q.B.D. 521 (1883); Lauterpacht, supra note 66, at 407.
77. HILBERT, op. cit. supra note 73, passim; 1 INTERNATIONAL CODE OF SIGNALS passim (1931).
78. See text at notes 173-84 infra.
79. See text at notes 120-24 infra.
continuing interest in encouraging the greatest practicable freedom of navigation and fishing, and the unilateral claims of states to make such uses of the sea for their own benefit continue to be preferred over other unilateral claims which serve community interest in less degree.

"Freedom of the sea" is, thus, no absolute, and never has been. It is, as it was in the beginning, a legal conclusion invoked to justify a policy preference for certain unilateral assertions as against others. The claims it favors are those to the utmost freedom for navigation, fishing, and other pursuits thought to further the most productive use of the sea and its resources, and thus to promote the community interest. It combats monopolistic claims, and minimizes international friction by confining each state's regulatory power, where possible, to ships flying its own flag, thus avoiding wrangles over seizure of ships and crews and other incidents of enforcement.

Continuous and Comprehensive Claims: The Territorial Sea

The most familiar group of demands which conflict with claims to navigation and fishing are certain continuous claims to exercise a "bundle of competences" termed "sovereignty" over a littoral belt of waters called the "territorial sea." Although the right of states to claim a territorial sea has not been seriously questioned since the early nineteenth century, the conflict between competing claims in this area is still so sharp that the most basic elements of possible compromise are still unsettled. Not only is the width of the area which may be claimed still disputed, but also the baseline from which this unknown width must be measured, and the very degree and scope of the

81. For excellent recent statement, see Lauterpacht, Sovereignty over Submarine Areas, 27 Brit. Y.B. Int'l L. 376, passim, but especially 399, 403-10 (1950); Gidel, Memorandum 74, 112.

82. "Freedom of the seas" has, of course, been most strongly supported by large maritime states and less enthusiastically by nations with predominantly coastal interests. See Potter, The Freedom of the Seas c. 11 (1924); Boggs, National Claims in Adjacent Seas, 41 Geographical Rev. 185, 203-04 (1951). The national interests which have underlain most historic assertions of "freedom of the seas" are sufficiently obvious. For citations see note 68 supra; cf. Gidel, Memorandum 3.

83. See Lauterpacht, supra note 81, at 407. Navigation and fishing are not "corollaries" of the principle of freedom of the seas, as Dr. Margolis suggests, Margolis, p. 630, but the primary reference of the words. It is commonplace, however, that "freedom of the seas" may be invoked to justify uses of the seas other than navigation and fishing, and that any and all uses may limit the freedom of other users. See Mouton, The Continental Shelf 185-87 (1952).

84. Lauterpacht, supra note 81, at 403-04, 408.

85. The quoted terms are from 3 Gidel, Droit International Public de la Mer 14 (1934). For citation to the few authorities who continue to debate whether the powers exercised in territorial sea by littoral states amount to "sovereignty" or something less, see François, Report on the Regime of the Territorial Sea 7-8 (U.N. Doc. No. A/CN.4/53) (1952) (Report to Int'l Law Comm'n).

authority that may be exercised within the area once its limits are ascer-
tained.

From the beginning of the modern law of the sea, it has been recognized
that the reasonable needs and interests of littoral states required that they be
permitted to extend their boundaries some distance seaward, and that pro-
tection of this claim was more in accord with community interest than were
the inconsistent claims of states to unimpeded use of the seas for all. Grotius
cautionsed that his principle of freedom of the seas applied only to the “sea,
properly speaking,” not to bays and straits or to seas adjacent to the shore.87

As the interests of states crowded outward, first exclusive fishing rights, then
neutrality, and later all the interests which a sovereign state may act to
protect were recognized to justify national claims to adjacent seas.88 Bynker-
shoek’s cannon-shot rule and Scandinavian claims to an all-purpose zone of
measured-width were at one with community interest: they fused to form
the body of prescriptions summed up in the term “territorial sea.”89

Although more than 300 years have passed since Grotius published his
famous brief, it is still not possible to say much more than that the regime
of the high seas applies only to the “sea, properly speaking,” not to “terri-
torial seas.” Although several large and influential states, among them the
United States, have consistently maintained that the maximum seaward ex-
tent of the territorial sea should be three miles, a much larger number of
states and virtually all publicists agree that the “three-mile rule” is valid only
as a minimum.90 Some thirteen states accept the three-mile rule for one or
more purposes, while some forty-five states repudiate it in greater or less
degree.91 The 1930 Conference for the Codification of International Law
brought to light the extent of the disagreement between states on the per-
missible width of territorial waters,92 and in the intervening years, as the
discussions in the International Law Commission bear witness, the gap ap-

87. Grotius, Freedom of the Seas 37 (Magoffin trans. 1916). The quoted words are
from Wright’s translation, quoted in Riesenfeld, Protection of Coastal Fisheries
Under International Law 18 (1942).

88. Pontanus, a fellow-countryman of Grotius who carried on the Grotius-Selden con-
troversy over fishing rights, conceded in 1637 that adjacent seas could be subjected to
ownership and exclusive jurisdiction. Id. at 19-20. For later historical development, see
Kent, supra note 86, passim; Walker, Territorial Waters: The Cannon Shot Rule, 22 Brit.
Y.B. Int’l L. 210 (1945). Nation-states are now, of course, conceded to enjoy “sovereign”
rights over territorial seas. See Briggs, The Law of Nations 281-84 (2d ed. 1952);
Harvard Research Draft on Territorial Waters 243 et seq. (1929); International Law

90. For collection of state practice and citations, see François, supra note 85, at 11-21.
91. Id. at 18, 11-15.
92. Gidel has called the three-mile rule “la grande vaincue de la Conférence,” and
added, “Il est désormais impossible de parler de la règle des trois milles comme constituant
une règle de droit international commun positif.” 3 Gidel, Droit International Public
de la Mer 151 (1934).
pears to have widened. Even in the countries which adhere to the three-mile rule there is widespread dissatisfaction with its operation. Bingham spoke the preference of many when he said, "The irresistible tide of economic, political and social interests is running against the Anglo-American three-mile doctrine. It is doomed."

A striking recent illustration of the flexibility of the international prescriptions relating to the territorial sea is the Anglo-Norwegian Fisheries Case, in which the United Kingdom attacked Norway's system of measuring its four-mile territorial sea from straight baselines instead of the low water mark following roughly the sinuosities of the coast. The International Court upheld Norway's system upon broad grounds of reasonableness, although that system was almost unique in the practice of states and extended Norway's exclusive fishing rights over a considerable area beyond that afforded by the traditional method of delimitation. Norway's straight baselines were valid, said the court, because they were adapted to its "practical needs and . . . requirements." The court emphasized the unusual geographic configuration of the coast, and "economic interests peculiar to [the] region, the reality and importance of which are clearly evidenced by a long usage."

Noting the "general toleration of foreign States" over an extended period, the court held that the Norwegian system could not be considered an unreasonable infringement of the rights of others. Judge Alvarez, concurring, was most explicit:

"Each State may . . . determine the extent of its territorial sea and the way in which it is to be reckoned, provided it does so in a reasonable manner, that it is capable of exercising supervision over the zone in question and of carrying out the duties imposed by international law, that it does not infringe rights acquired by other States, that it does no harm to general interests and does not constitute an abus de droit."

Within territorial seas, nation-states may monopolize fisheries, may apply their general legislation almost as fully and freely as they do within their

96. Id. at 133, 138.
97. Id. at 138, 142.
98. Id. at 150, 153.
land boundaries, and to a certain extent may exclude vessels altogether. Other states' claims to "freedom of the seas"—that is, to use and enjoy the seas for their own benefit, become tenuous and vestigial in territorial waters, but are yet too strong to be ignored. The policy preferences summed up in "freedom of the seas" are represented in the law of territorial waters by the doctrine of "innocent passage." Thus in the recent Corfu Channel Case, the International Court, emphasizing that the Channel connected two parts of the high seas and formed part of a heavily traveled maritime route, held that Albania could not deny passage through the strait even to warships, although it might regulate passage.

It is, in summary, obvious that only the flexibility of the relevant prescriptions at the disposal of decision-makers, permitting them to adjust particular decisions to changing needs and conditions, prevents serious friction between nation-states with respect to the riot of conflicting claims within and at the outer boundaries of territorial seas. Within such boundaries, the needs of littoral states for comprehensive governmental powers and the no less important needs of all for open lines of communication and commerce are adjusted by application of "innocent passage" and of appropriate qualifications to that doctrine created as occasion may require. Beyond territorial boundaries and with respect to the multiple important claims to specific and limited competences now extended many miles out to sea, such safety-valve concepts as "contiguous zones," "jurisdiction," "continental shelf," and so on, to which we now turn, prevent the continuing controversy over the seaward extent of the territorial sea from doing serious harm to community and national interest.

**Particular Claims for Limited Purposes: Contiguous Zones**

Before the territorial sea had become a familiar concept in international law, it was already in some respects obsolete. The modest distances at which

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the limits of the territorial sea had tended to crystallize were already inadequate to protect certain pressing interests of littoral states. The attempt to protect these interests took, and even today sometimes takes the form of an attempt to extend territorial waters, but the pressure of community policy, reinforced by the national interests of large and influential states in seas adjacent to foreign coasts, made extension of territorial waters an unacceptable solution. Accordingly, states claimed rights of "jurisdiction" or "control"—less than "sovereignty"—for special purposes, and limited their claims to the minimum distance, the minimum degree of comprehensiveness, and the minimum length of time necessary to effectuate particular purposes. Claims of this nature which were reasonable evoked no significant protest. Some authorities spoke of "territorial sea for customs," "territorial sea for neutrality," and the like; others differentiated the claim to sovereignty within territorial waters, and claims to lesser rights beyond, grouping the latter under the heading "contiguous zones." One of the earlier statements of the fundamental policies which underlie such claims was made by Chief Justice Marshall, in the famous case of Church v. Hubbart, which recognized the validity of Portugal's claim to exercise authority on the high seas to protect commercial interests in its colony of Brazil. Asserting that the power of a state to secure itself from injury "may certainly be exercised beyond the limits of its territory," the Chief Justice continued:


As the following pages will show, the assertion by Margolis, p. 635, that "sovereignty" may not be exercised over high seas areas, is totally irrelevant to the issue to which he addresses himself. If anything is clear, it is that the United States has never claimed "sovereignty" over any "high seas" areas and has no need to make such a claim in order to justify the control it seeks for the hydrogen bomb tests. See text at notes 192-93 infra. It is altogether impossible to comprehend the contemporary law of the sea without distinguishing between the comprehensive and continuous rights of "sovereignty" claimed only within "territorial seas" and the lesser rights claimed under other labels beyond. Hyde in his Foreword to Jessup, Law of Territorial Waters ix (1927), speaks of "the important distinction observed by maritime states between claims assertive of territorial control over particular waters, and claims of purely jurisdictional aspect asserted through acts committed on the high seas." Jessup himself has said: "There is a vital distinction between that maritime belt which is claimed as a part of the territory of the state and the limited rights of control or jurisdiction claimed upon the high seas." Id. at xxxiii. See also Masterson, Jurisdiction in Marginal Seas xiii-xviii, 375 et seq. (1929); Briggs, Les Etats-Unis et la Loi de 1935 sur la Contrebande—Etude de la Zone Contiguë et des Critères de "Raisonnabilité", 20 R.D.L.L.C., 3d Ser. 217, 231-32 (1939); Gidel, La Mer Territoriale et la Zone Contiguë, 48 HAGUE RECUEIL 137 (1934).

105. Martial, State Control of the Air Space over the Territorial Sea and the Contiguous Zone, 30 CAN. B. REV. 245, 254 (1952).

106. The term "contiguous zone" did not come into general use until the Codification Conference of 1930. See Gidel, supra note 104, at 138 et seq. The concept itself is, of course, very much older, as will be seen infra.

107. 6 U.S. (2 Cranch) 187 (1804).
"Any attempt to violate the laws made to protect this right [to monopolize colonial trade], is an injury to itself, which it may prevent, and it has a right to use the means necessary for its prevention. These means do not appear to be limited within any certain marked boundaries, which remain the same, at all times and in all situations. If they are such as unnecessarily to vex and harass foreign lawful commerce, foreign nations will resist their exercise. If they are such as are reasonable and necessary to secure their laws from violation, they will be submitted to.

In different seas, and on different coasts, a wider or more contracted range, in which to exercise the vigilance of the government, will be as-sented to. Thus, in the channel, where a very great part of the commerce to and from all the north of Europe, passes through a very narrow sea, the seizure of vessels . . . must necessarily be restricted to very narrow limits; but on the coast of South America, seldom frequented by vessels, . . . the vigilance of the government may be extended somewhat farther; . . . foreign nations submit to such regulations as are reasonable in themselves . . . ."108

It is this concept of a reasonable competence beyond territorial seas which most clearly reveals that enduring flexibility which permits the regime of the high seas to meet the changing needs of contemporary life.

The first national interest clearly to escape the confines of the territorial sea was, typically, that of the fisc. Beginning at least 250 years ago, states began to exercise rights of jurisdiction and control upon the high seas in order to enforce their customs laws, in zones ranging from six to three hundred miles from shore.109 Britain, a staunch supporter of the three-mile rule, as recently as 1876 claimed a customs zone of three hundred marine miles, and today exercises limited jurisdiction twelve marine miles from shore.110 Since 1790, the United States has maintained a contiguous zone for customs control of twelve nautical miles,111 and since 1935 has provided by law that whenever the President finds that an area on the high seas outside customs waters is frequented by hovering vessels, he may create "customs enforcement areas" extending sixty-two miles from shore for a distance of two hundred miles along the coast.112 At least twenty-six states claim a contiguous zone, outside


110. Id. at 1-161; Masterson, The Hemisphere Zone of Security and the Law, 26 A.B.A.J. 860, 861 (1940).

111. 1 STAT. 156 (1790).

112. Anti-Smuggling Act of 1935, 49 STAT. 517, 19 U.S.C. § 1701 (1952). For exercise by the President of his authority to create customs enforcement areas, see Proclamations Nos. 2131, 49 STAT. 3462 (1935); 2132, id. at 3464; 2149, id. at 3484; 2150, id. at 3485; 2152, id. at 3488. Cases of seizure of ships under this Act are discussed in Briggs, supra note 104, at 248-55.

For careful demonstration of the compatibility of this Act with international law, and
territorial waters, for customs enforcement purposes. A recent report to the International Law Commission does no more than recognize the obvious when it states that "it would be impossible to dispute the right of states to institute a contiguous zone for Customs purposes." 

Another interest achieving early protection was that of security of neutral states against belligerent activities. As the range of weapons of war increased, coastal states were forced to claim extended rights of jurisdiction and control over the high seas in order to protect their shores from injury by foreign vessels in combat. In the famous incident of the Alabama and the Kearsarge during the American Civil War, the French authorities prevented an engagement between the two ships just outside French territorial waters, and escorted the Alabama some distance out to sea where a battle eventually took place. Other states extended neutral zones from time to time as occasion demanded, until, by the Declaration of Panama of 1939, the governments of twenty-one American republics asserted an "inherent right" to have the waters "to a reasonable distance from their coasts" remain "free from the commission of hostile acts and from the undertaking of belligerent activities" by nations engaged in war. This "security zone" encircled the United States and Central and South America, embracing the waters of the Atlantic and Pacific for distances ranging from 300 miles off the tip of South America to some 1200 miles off the coast of Florida. Although on several occasions the zone was violated, and in response to protests the belligerents challenged its

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114. François, supra note 113, at 49.

115. 1 Moore, Digest of International Law 723-24 (1906). The United States protested this action at the time, but later conceded its correctness. 1 Wharton, Digest of International Law 108-09 (1896).


117. Masterson, supra note 110, at 860.
The most influential single factor in producing recurrent opposition to attempts to extend the limits of territorial seas has perhaps been the interest of states in fisheries along foreign coasts. Yet the indiscriminate use of trawls, floating factories, explosives, and other potentially destructive fishing methods made possible by modern technology has forced widespread recognition of the legality, if not of extended territorial waters, of contiguous zones for the regulation of fisheries. For years urged only by scholars, the contiguous zone for fishery conservation was given resounding approval in the historic proclamation of 1945, by which the United States announced a new policy of establishing conservation zones in areas of the high seas contiguous to American coasts. The proclamation contained a variety of provisions safeguarding the interests of other states in fisheries to be regulated, and an offer to recognize similar rights of control by other states, on condition that the interests of United States nationals be appropriately safeguarded. In addition to the United States, at least twelve other bodies politic assert the right to control fisheries beyond territorial waters. While the claims of some of these have been widely deprecated, the United States claim has been viewed with approval by many influential commentators. Most significantly, no

118. For the texts of belligerents' replies see 2 DEP'T STATE BULL. 199, 201, 203 (1940)
119. Brown, Protective Jurisdiction, 34 AM. J. INT'L L. 112 (1940); Fenwick, The Declaration of Panama, 34 id. 116; The Exercise of Jurisdiction for Special Purposes in High Seas Areas beyond the Outer Limit of Territorial Waters, address by W. W. Bishop, Jr. before the Inter-American Bar Association, May 1949, pp. 4-5; Masterson, supra note 110, at 862-63. Cf. Gidel, Memorandum 34.
120. See, e.g., BINGHAM, REPORT ON THE LAW OF PACIFIC COASTAL FISHERIES (1938); RIESENFELD, PROTECTION OF COASTAL FISHERIES IN INTERNATIONAL LAW 282 (1942).
121. Presidential Proclamation No. 2668, 59 STAT. 885 (1945).
123. See Gidel, Memorandum 36-48, emphasizing, in support of the reasonableness of the United States claim, advances in technology, the need for conservation, and the fact that the United States claims powers of regulation for conservation purposes, rather than monopoly. Lauterpacht, Sovereignty over Submarine Areas, 27 BRIT. Y.B. INT'L L. 376, 407-08 (1950), asserts the opinion that the U.S. claim is "not necessarily inconsistent with a rational interpretation of the principle of the freedom of the seas so long as its primary
state has protested the 1945 Proclamation, although a number of states promptly took exception to the more ambitious claims of Chile, Peru, El Salvador, and others.124

For centuries states have exercised authority over the high seas in order to regulate sedentary fisheries. Attempts have been made to distinguish these assertions as claims to the sea-bed rather than the seas,125 or as mere historical exceptions to freedom of the seas;126 but licenses have been required, ships seized and jurisdiction assumed over violators of regulations designed to promote conservation or monopoly, and it seems clear that claims of modern origin are as lawful as those of more ancient lineage.127 Unilateral claims to exercise national authority over a total of thousands of square miles of high seas for this purpose are today asserted by Ceylon, Australia, Tunis, Ireland, Venezuela, Panama, and states bordering the Persian Gulf.128 The International Law Commission has recently indicated that it regards with equanimity the enforcement even of monopolistic regulations.129

Perhaps the most spectacular development in the regime of the high seas in recent years has been the quick acceptance of the validity of national claims to the continental shelf. The continental shelf is the gently sloping plain which underlies the high seas adjacent to most land masses, extending seaward from shore to a depth of 100 fathoms.130 Discovery of extensive oil reserves under the continental shelf in many areas, and development of techniques of drilling for oil at sea, have given rise to a multitude of unilateral claims to “jurisdiction and control” or “sovereignty” over the object is not the exclusion of nationals of foreign states,” and elsewhere speaks of the “reasonable requirements of economic life and scientific progress,” “intrinsic reasonableness,” and “the ever valid test of reasonableness.” Id. at 403, 406, 407. See also Bingham, The Continental Shelf and the Marginal Belt, 40 AM. J. INT’L L. 173 (1946); Jessup, The Pacific Coast Fisheries, 33 id. 129 (1939); Selak, Recent Development in High Seas Fisheries Jurisdiction under the Presidential Proclamation of 1945, 44 id. 670 (1950); Allen, The Fishery Proclamation of 1945, 45 id. 177 (1951); Chapman, United States Policy on High Seas Fisheries, 20 DEP’T STATE BULL. 67 (1949).


125. See, e.g., Hurst, Who’s is the Bed of the Sea?, 4 BRIT. Y.B. INT’L L. 34 (1923).

126. See, e.g., HIGGINS & COLOMBOs, INTERNATIONAL LAW OF THE SEA § 73 (2d ed., Colombos 1951).


130. See, generally, BOUCART, GÉOGRAPHIE DU FONDS DES MERS, ÉTUDE DU RELIEF DES OCÉANS (1949).
continental shelves adjacent to the shores of claimant states. These claims have produced endless discussion by international lawyers and scholars which has been particularly enlightening upon the compatibility of the legal regime of the high seas with activities which necessarily interfere with complete freedom of navigation and fishing.

Development of international prescriptions about the continental shelf began with the Treaty of Paria, concluded in 1942 between the United Kingdom and Venezuela. Pursuant to the treaty, Britain and Venezuela each annexed one half of the sea-bed of the Gulf of Paria, stipulating, however, that the seas above should retain their legal character as high seas. In 1945, in conjunction with the fisheries proclamation, President Truman issued a proclamation declaring that the United States regarded the natural resources of the sub-soil and sea-bed of the continental shelf contiguous to the United States as “appertaining to the United States, subject to its jurisdiction and control.” The proclamation further provided that the character as “high seas” of the waters above the continental shelf, and the right to free and unimpeded navigation were to be deemed unaffected by the declaration. Subsequently, thirteen nations, nine Middle East sheikdoms and four British colonies have promulgated similar or even more extensive claims.

In spite of the proviso relating to “high seas” in the United States and other declarations, nearly every commentator who has examined the question has conceded that freedom of navigation and fishing must inevitably be affected by development of the continental shelf. Nevertheless, the opinion of international jurists is nearly unanimous to the effect that no prescription of international law forbids such development, and Lauterpacht, among others, asserts that a customary rule of law permitting jurisdiction and control over undersea areas has by now been established.

Commentators have agreed, first of all, that individual states and the whole world community have a substantial interest in promoting development of undersea resources. They observe the importance of such resources to lit-

132. Id. at 45-46, 47.
134. Id. at 23-37.
136. Id. at 376-77, 431; Bingham, Juridical Status of the Continental Shelf, 26 So. Calif. L. Rev. 4 (1952); Goldie, supra note 127, at 559.
137. The general sequence of thought indicated in the balance of the text paragraph has been followed most explicitly by Gidel, Memorandum 48-112; Bingham, supra note 136, passim; Lauterpacht, supra note 135, passim. See also International Law Commission, Report, U.N. General Assembly Off. Rec. 8th Sess., Supp. No. 9, at 12-16 (Doc. No. A/2456) (1953); Borchard, Resources of the Continental Shelf, 40 Am. J. Int’l L. 53 (1946); Briggs, Jurisdiction over the Sea Bed and Subsoil beyond Territorial Waters, 45 id. 338 (1951); Brown, Protective Jurisdiction over Marginal Waters, 47 id. 452 (1953);
toral states and the fact that security considerations would impel states to oppose violently any developmental operations near their shores which they could not control, and conclude that the policy of avoiding clashes of interest between states overrides the traditional policy against monopolistic claims. They note that interference with navigation and fishing is certain to ensue, but that such interference would be slight, and in any event would be more than balanced by the interests served by permitting utilization of the resources of the shelf. Frequently, they caution that developmental projects might infringe international law if undertaken in areas peculiarly vital to navigation. In short, the commentators foresee that the interference with other states’ claims to rights of navigation, fishing and other uses will ordinarily be reasonable, and conclude that reasonable claims to use, jurisdiction, control, or even “sovereignty” over the continental shelf are not inconsistent with the regime of the high seas.138

Further rich illustration of the practice of states and process of community decision concerning claims in adjacent seas comparable to that with respect to customs, fishing, neutrality, and the resources of the sea-bed and continental shelf, could be offered with respect to virtually every identifiable interest of coastal states.139 The most recent information indicates that no less than forty states claim one or more contiguous zones or recognize the validity of claims asserted by others.140 It may therefore be observed, as a matter of objective fact, that reasonable claims to contiguous zones for one or more purposes are thoroughly accepted in the practice of states.141 The standard of decision with respect to all claims has of necessity been no more explicit than reasonableness, determined ad hoc in the light of all relevant policies, conditions, and alternatives. The maritime frontiers of the world are, thus, not sharp lines between national sovereignty and “anarchy, euphemistically known as ‘freedom of the sea,’ ”142 but areas extending beyond terri-

Goldie, supra note 127, passim; Trigg, National Sovereignty over Maritime Resources, 59 U. Pa. L. Rev. 82 (1950); Young, Recent Developments with Respect to the Continental Shelf, 42 Am. J. Int’l L. 849 (1948).

138. With the authorities cited note 137 supra, contrast Margolis, p. 634, asserting that “the legal justification for such claims is far from clear.” Even the International Law Commission, which has understandably been extremely diffident in endorsing principles not already established, has adopted articles which would uphold claims to the continental shelf. Report, supra note 137, at 12-16. The Commission stated: “The case is clearly one of assessment of the relative importance of the interests involved. Interference, even if substantial, with navigation and fishing might, in some cases, be justified.” Id. at 15. Yet “that principle is in no way incompatible with the principle of freedom of the sea.” Id. at 14.


140. Boggs, supra note 139, at 192-201; François, supra note 139, at 11-15.

141. The two-sentence reference to this great development in Margolis, p. 634, is scarcely adequate recognition of its importance.

142. Quoted from Riesenfeld, Protection of Coastal Fisheries under International Law 2 (1942).
torial waters for distances ranging up to hundreds of miles, in which states exercise competences of descending comprehensiveness for the most diverse purposes.143

Because of their peculiar relevance to the hydrogen bomb tests, the assertion and honoring of claims with respect to defense and security bear further elaboration.

THE SPECIAL DEFERENCE ACCORDED TO CLAIMS FOR SECURITY144

In the absence of a centralized authority capable of maintaining public order, nation-states have always demanded for themselves and accorded to others a wide measure of freedom in unilateral action for maintaining their own security against external dictation by unlawful violence or threats of violence.144 This has been especially true in the domain of the international

143. One is at a loss to discern the relevance, and even the meaning, of Dr. Margolis' distinction between "general" and "special" police powers. Margolis, pp. 634-36. The distinction is apparently an effort to force all claims to exercise authority on the high seas into a dichotomy borrowed from Gidel, who used it only to describe certain powers attributed to men-of-war. See I Gidel, DROIT INTERNATIONAL DE LA MER 288 et seq. (1932); Gidel, Memorandum 4, 9-10. The descriptive use of the terms seems to be a shifting reference from the modality by which claims are asserted, to the area in which claims are asserted. Thus, "general police powers" may "be exercised independently of treaty rights," emerging "purely and simply from custom" and are not "limited to particular maritime zones." See Margolis, p. 634 n.33. In contrast, "special police measures" exist only by virtue of treaties, and apply exclusively to the states which are parties to them." Ibid. Obviously neither description fits the United States claim, but neither does it describe some hundreds of other claims which are of ancient origin and unquestionably lawful. Only the preferential use of the terms is made completely explicit: the category of "general" police powers is projected as a closed one, confined to certain ancient practices, and all "special" police powers must be created by agreement; hence, decision-makers are blocked off from honoring any new claims not created by agreement. Ibid. Such preferential projections obviously do not, however, accord with the preferences that the authoritative decision-makers of the world community have embodied in their decisions in the past and no reason is offered why any one should accept such preferences for the future. Certainly the words "general" and "special" are at a level of abstraction which offers no particular policy guidance and vague references to "creation by treaty" and "particular maritime zones" adds insufficient factual context to justify any kind of conclusion.

144. "Security" may be most broadly conceived as high position, potential, and expectancy with respect to all values. LASSWELL & KAPLAN, POWER AND SOCIETY 61 (1950). Thus defined, it underlies all of the claims outlined above, beginning with the claims to navigation and fishing and continuing across the spectrum to claims of sovereignty over territorial seas. For more than usual explicitness in justification of claims to territorial seas and contiguous zones in terms of security, self-defense, and self-preservation, see JESSUP, LAW OF TERRITORIAL WATERS passim (1927). Cf. Gidel, Memorandum 45; 12 FUR SEAL ARBITRATION, PROCEEDINGS 254-56 (1895).

In this section, however, we use the term "security" in a more restricted sense of freedom from external dictation by unlawful military violence or threats of violence.

145. Considerations of self-defense and self-preservation have historically played a most important role in the prescriptive formulations of an imperfectly organized world community. See, e.g., 2 GROTIAN, DE JURE BELLI AC PACIS 195 (Kelsey trans. 1925); 3 VATTEL, DROIT DES GENS 149, 274 (Fenwick trans. 1916). See also 1 FAUCHILLE, TRAITÉ
law of the sea, where it is with respect to claims which bear upon national security that prescriptions and concepts exhibit their highest degree of flexibility.

The primacy of security interests in the law of the sea is suggested by the historical fact that prescriptions authorizing the unilateral suppression of "piracy"—criminal acts and depredations upon the high seas not attributable to any state—antedate even "freedom of the seas" in its "modern" sense. Indeed, the phrase "freedom of the seas" itself was, before Grotius, a popular characterization of efforts to liberate the high seas from the atrocities and robberies perpetrated by pirates. Because of their common interest in repressing unlawful violence on the high seas the states of the world community have agreed since antiquity that there should be "universal" jurisdiction with respect to piracy. A state may thus exercise jurisdiction over piratical ships and their crews without regard to the locus of the crime, the flag flown, the nationality of injured parties, or any other normal indicia of jurisdiction.

Of more contemporary importance is the fact that the prescriptions protecting navigation and fishing, like most other important prescriptions in both international and municipal law, have always yielded to claims of self-defense. In the much-discussed case of the *Virginius*, Spanish forces seized an American vessel on the high seas en route to Cuba carrying arms for insurgents, and summarily executed a number of American citizens and British subjects on board. Britain sought reparations for this treatment of its sub-

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147. Gidel, *Memorandum 1*.


150. 2 Moore, *Digest of International Law* 895-903, 980-83 (1906).
jects, but conceded the legality of the seizure under the circumstances of the case. The United States withdrew its initial protest, and subsequently adopted the British view of the right of self-defense as its own. It is hardly surprising that action in self-defense may be taken on the high seas, since the same principle is considered to justify actual invasion of foreign territory. In the case of the Caroline, Canadian forces invaded the United States and destroyed the vessel, which was to be employed by Canadian insurgents and American sympathizers in an impending attack on Canada which the United States was unable to prevent. The British in 1807 seized the Danish fleet to avoid its use by Russia, and in 1940 destroyed the French fleet at Oran to prevent its falling into the hands of German forces. It is authoritative community prescription, as well as unilateral claim, that every sovereign state must have, in the words of Elihu Root, "the right . . . to protect itself by preventing a condition of affairs in which it will be too late to protect itself." Since, as has been noted, the world community has no centrally organized police force, self-help is often the only rational alternative for maintaining public order, whether the threat to that order is posed by individuals responsive to the authority of no state, or by the instrumentalities of states themselves.

Claims to contiguous zones for specific security purposes—wholly apart from the preeminence of "security" as a general justification for many different kinds of contiguous zone claims—are today asserted by at least eighteen states, exclusive of the claims to extensive neutrality zones already considered. As expectations of the most comprehensive violence have increased in recent years, the number and extent of such claims has increased, with no noticeable protest from the international community.

151. Id. at 983.
152. For espousal by the United States of the doctrine of self-defense upon the high seas, see 12 FUR SEAL ARBITRATION PROCEEDINGS 101-04, 246-49 (1895). For approval of the British stand in the matter of the Virginia, see, e.g., BRIEFLY, THE LAW OF NATIONS 228 (4th ed. 1949); HALL, INTERNATIONAL LAW 328-30 (8th ed., Higgins 1924); HIGGINS & COLOMBO, INTERNATIONAL LAW OF THE SEA § 274 (2d ed., Colombos 1951); 1 HYDE, INTERNATIONAL LAW § 68 (2d ed. 1945); JESSUP, LAW OF TERRITORIAL WATERS 97 (1929); 1 WESTLAKE, INTERNATIONAL LAW 171 (1910).
153. HALL, op. cit. supra note 152, at 323-24. See also 1 HYDE, op. cit. supra note 152, § 66; JESSUP, op. cit. supra note 152, at 76, 97, arguing that since "the great principle of inviolability of national territory is qualified by the right of self-defense," a fortiori freedom of the seas is subject to the same qualification.
155. 1 OPPENHEIM-LAUTERPACHT 270-71.
157. See note 144 supra.
158. Boggs, National Claims in Adjacent Seas, 41 GEOGRAPHICAL REV. 185, 192-201 (1951); text at notes 161, 167, 180 infra.
159. See text at notes 115-19 supra.
The impact of modern technology upon these demands for security is most dramatically illustrated by the claims recently asserted by the United States and Canada to exercise jurisdiction for security purposes in the airspace overlying vast areas of the Atlantic and Pacific Oceans. In 1950, the United States established certain "Air Defense Identification Zones" (ADIZ), defined as

"Air space . . . designated by the administrator of Civil Aeronautics within which the ready identification, location and control of aircraft is required in the interest of national security."

Flight plans must be filed for both domestic and foreign flights before entering an ADIZ, and position reports must be made by foreign aircraft which are bound for the United States, upon entering an ADIZ or "when the aircraft is not less than one hour . . . cruising distance via the most direct route, from the United States." Knowing or willful violators of these regulations are guilty of a misdemeanor, and upon conviction may be subjected to penalties ranging up to $10,000 fine and one year's imprisonment. The Atlantic ADIZ extends seaward more than 250 miles, the Pacific ADIZ more than 300 miles, and in the case of a high-speed aircraft jurisdiction would be assumed at one hour's cruising distance, potentially 600 or more miles.

In 1951, Canada promulgated similar regulations, providing for the creation of Canadian Air Defence Identification Zones extending seaward up to 180 miles, in which a similar type of jurisdiction over aircraft was asserted. The Canadian regulations are less stringent than those of the United States in that the zones are smaller, and the regulations do not apply to aircraft flying at altitudes of less than 4000 feet. They are stricter, however, in that position reports must be made by foreign aircraft within defense zones whether or not they are bound for Canada or its territorial waters. Violation of the Canadian regulations renders the aircraft "liable to interflight interception by military interceptor aircraft."

Neither the United States nor the Canadian claim has elicited any protest, so far as is known, and at least one commentator...
tator has concluded with little difficulty that both sets of regulations are valid under international law.171

Among the claims asserted in the name of "security" are certain claims to exclusive use of high seas areas for peacetime naval and military exercises or maneuvers, sometimes implemented by a claim to civil or criminal jurisdiction for enforcement purposes. Although such claims may be traced indirectly to antiquity,172 their legality has apparently seldom been questioned or even discussed. It is this class of claims to which generically the claim made by the United States in connection with its thermonuclear bomb tests belongs.

It has already been observed that the activities of ships themselves sometimes constitute a noticeable interference with the navigation of others, particularly in the case of trawlers, dredges, cableships, and naval vessels in formation or engaged in maneuvers, and that such vessels can get sea room by making appropriate signals.173 With the increased range of naval guns and coastal artillery, and the appearance of increasingly dangerous devices of naval warfare, states with extensive naval forces found it necessary to institutionalize some of their peacetime defensive activities in order to minimize conflict between those activities and commercial navigation and fishing. Exercises involving the use of modern weapons could not be conducted with safety except in relatively unfrequented areas, and, moreover, mariners preferred to avoid exercise areas altogether rather than to be delayed and endangered by unexpected encounters. New means of communication made it possible to supplement, if not to displace visual signalling as a means of reducing interference between navigation and dangerous defensive activities.

171. Martial, State Control of the Air Space over the Territorial Sea and the Contiguous Zone, 30 CAN. B. REV. 245 (1952).

172. From the earliest times, various commentators have found it necessary to accord special consideration to the status of war fleets in peace. Grotius contended that "sovereignty," as opposed to "ownership" over a sea area could be acquired by stationing a fleet there. 2 GROTIIUS, DE JURE BELLII AC PACIS 214 (Kelsey trans. 1925). See also 1 PUILLMORE, COMMENTARIES UPON INTERNATIONAL LAW 290-91 (3d ed. 1879): "The portion of sea actually occupied by a fleet riding at anchor is within the dominion of the nation to which the fleet belongs, so long as it remains there; that is, for all purposes of jurisdiction over persons within the limits of the space so occupied." For criticism of an incorrect paraphrase of the passage quoted, see 1 OPPENHEIM-LAUTERPACHT 540 n.4.

While claims to "sovereignty" over sea areas have never in fact been made on the basis of occupation by naval forces, several authorities have asserted that naval vessels in formation or engaged in maneuvers should be accorded the right of way at sea under all circumstances, 1 GIDE, DROIT INTERNATIONAL PUBLIC DE LA MER, 360; DE RYCKE, DROIT MARITIME BELGE 509 (1913), and the "Special Circumstances" and "General Precautionary" rules have occasionally been so interpreted. See the Sanspareil [1900] P. 207; GRIFFIN, COLLISIONS § 230 (1949); HILBERT, INTERNATIONAL RULES OF THE ROAD AT SEA 130 (1938). The British Admiralty has categorically asserted that it is the duty of a single vessel to keep out of the way of a squadron or convoy. Admiralty Notices to Mariners, Jan. 1, 1954, pp. 39-40 (weekly ed.).

173. See text at note 77 supra.
Naval powers therefore began the practice of conducting their more dangerous maneuvers and defensive activities in circumscribed areas selected with a view to creating the least possible interference with navigation and fishing. Mariners throughout the world were advised, through national hydrographic offices and other channels of information relating to navigation, that designated areas would be unsafe for navigation either indefinitely or at certain times. The United States has established well over 400 such areas, ranging in size from less than a square mile to the vast area surrounding Bikini and Eniwetok Atolls, and in duration from a period of a few hours to many years. Other naval powers, including the United Kingdom, Canada, Australia, and the Soviet Union, have engaged in the same practice for similar purposes. Ordinarily, no claim is made to enforce warning areas by means of formal sanctions, and the normal responsibility for taking reasonable measures at the scene to avoid accidents is considered to rest with the authorities using the areas for dangerous operations.

As every mariner knows, a network of national and international organizations cooperate to make available to mariners throughout the world information relating to hazards to navigation, such as warning and danger areas, wrecks, missing or inoperative lights and buoys, oil-well structures, minefields, blockades, recently discovered reefs, and so on. See generally Admiralty Notices to Mariners, supra note 172, at 50-52, 155; U.S. Navy Hydrographic Office, Notice to Mariners (Special) 25-42 (Jan. 1, 1954). Some forty-one nations and the International Hydrographic Office at Monte Carlo, Monaco, cooperate in the distribution of notices to mariners. Id. at 30. For description of the services provided by the U.S. Navy Hydrographic Office, see its INFORMATION ON HYDROGRAPHIC OFFICE CHARTS & PUBLICATIONS (H.O. Circular No. 3, 1954).

N.Y. Times, April 1, 1954, p. 20, col. 2. For numerous examples, see any issue of U.S. Navy Hydrographic Office, Notice to Mariners (weekly ed.); U.S. DEPT OF COMMERCE, RESTRICTED, DANGER AND ANCHORAGE AREAS 94, 104, 118, 120, 134, 149, 156, 201 (Ser. No. 693, 1947); Admiralty Notices to Mariners, supra note 172, at 37.

See, e.g., Admiralty Notices to Mariners, supra note 172, at 37, 39-40, 67 (United Kingdom), 178 (Yugoslavia, Greece), 187 (Australia), 190 (Venezuela, United States); U.S. DEPT OF COMMERCE, op. cit. supra note 173, at 200, 201 (Canada); Soviet Notices to Mariners, Nos. 717, 935, 936 (1947), 1121, 2446 (1954) (translations on file in Yale Law Library). See also text at notes 189-94 infra. For a chart depicting a zone of approximately 50,000 square miles, extending from Florida out into the Atlantic and across the Bahamas, used jointly by the United States and Britain for the testing of long-range guided missiles, see GR. BRIT. FOREIGN Off. TREATY SER. No. 74, at 14 (1950).

It is the usual international practice for nations issuing navigation notices to supply copies to other maritime nations, which reprint them in their own languages for the information of their mariners. Examples of recent Soviet practice are few, since the Soviet Union stopped supplying the United States with Notices to Mariners in 1947, giving no reason, and then, in 1954, again giving no reason, suddenly resumed supplying them. See Admiralty Notices to Mariners, supra note 172, at 175.

U.S. Hydrographic Office, Notice to Mariners (special) 15-16 (Jan. 1, 1954); Admiralty Notices to Mariners, supra note 172, at 37.

It seems likely that the practice of creating warning areas by dissemination of advance notice by radio and printed memoranda evolved naturally from visual signalling, and that if it had ever been questioned, states would have defended it as an exercise of "freedom of the seas." Thus, states' attempts to prevent foreign naval forces from engaging in gunnery practice outside territorial waters, but within range of shore, have been defended, in
announced in terms which make clear that the authorities using them are expected to enforce observance.\textsuperscript{178}

In rare instances, criminal penalties are provided for unauthorized intrusions.\textsuperscript{179} In the Defence (Special Undertakings) Act of 1952,\textsuperscript{180} the Commonwealth of Australia created a prohibited area of more than 6000 square miles, most of it high seas,\textsuperscript{181} surrounding one of the Monte Bello Islands in western Australia, where atomic tests have been conducted by the United Kingdom.\textsuperscript{182} Persons entering the area without permission are made subject to penalties ranging up to seven years' imprisonment.\textsuperscript{183} The Act empowers the Minister to declare other restricted areas whenever it is "necessary so to do for the protection of a special defence undertaking," defined as any work or undertaking carried on within or without Australia, relating to the defense of itself, "some other part of the Queen's dominions or of some other country associated with Australia in resisting or preparing to resist international aggression."\textsuperscript{184} No protest by any nation against the Act has been reported.

The especially privileged status in world prescription of claims to exercise authority and control upon the high seas for purposes of security, even in time of "peace," is particularly confirmed by the practice of Great Britain. Although that nation is usually considered to have altered its previous attitude and is counted among the few states which oppose claims to contiguous zones generally, it has followed a consistent course of approving the widest freedom of decision for itself and for other states in matters affecting defense and security.\textsuperscript{185} This attitude, shared as we have seen by other states equally

\begin{thebibliography}{99}
\bibitem{178} "Restricted," "closed," and "prohibited" areas are announced in such terms, see, e.g., U.S. DEP't of COMMERCE, op. cit. supra note 175, at 95; Admiralty Notices to Mariners, supra note 172, at 190; U.S. Navy Hydrographic Office, Notice to Mariners, pt. 2, No. 24, para. 3168 (June 13, 1953), and are apparently differentiated carefully from "danger," "warning," and "caution" areas.

\bibitem{179} So far as is known, the United States has never laid claim to civil or criminal jurisdiction to enforce exclusion from any warning area outside territorial waters. For practice as to peacetime defensive sea areas within territorial waters, see note 100 supra; cf. text at notes 160-66 supra.

\bibitem{180} 50 COMMONWEALTH ACTS 64 (1952).

\bibitem{181} Goldie, Australia's Continental Shelf, 3 INT'L & COMP. L.Q. 535, 550 n.43 (1954).

\bibitem{182} N.Y. Times, Oct. 15, 1953, p. 3, col. 5.

\bibitem{183} 50 COMMONWEALTH ACTS 66, 67 (1952).

\bibitem{184} Id. at 65, 67.

\bibitem{185} See notes 150-52 supra and accompanying text. Professor Smith, often a clear

solicitous of "freedom of the seas," is eloquently expressed in the British Territorial Waters Jurisdiction Act of 1878, still in effect:

"the rightful jurisdiction of Her Majesty . . . extends and has always extended over the open sea adjacent to the coasts of the United Kingdom and of all other parts of Her Majesty's dominions, to such a distance as is necessary for the defense and security of such dominions."183

This traditional feature of British policy is most recently evidenced by her obvious acquiescence in the Australian legislation enacted to facilitate Britain's own atomic tests, and her apparent acquiescence in United States and Canadian air defense regulations.

In time of acknowledged war "freedom of the seas" is, of course, subject to exceptions so numerous and substantial as virtually to overwhelm the principle itself.187 Belligerents are authorized to conduct hostilities against each other anywhere upon the oceans of the world, save in the territorial seas or protective zones of neutrals,188 and they have commonly rendered vast stretches of the ocean unsafe for commercial navigation, paying but scant attention to the claims of non-participants for neutrality zones.189 Even under the older doctrines of contraband, unneutral service, blockade, ultimate destination, war zones, and reprisals, enforced by the procedures of visit and search, and capture, a belligerent who has the effective power is authorized

spokesman of official British policy, has said: "Nearly a century has now passed since the unsatisfactory dispute with Spain [over British Hovering Acts] was allowed to die out, and since then the government of Great Britain has shown an increasing reluctance to resist actively such claims by other states as can be justified on the principle of self-defense." Smith, The Law and Custom of the Sea 21 (2d ed. 1950). See also Martial, State Control of the Air Space over the Territorial Sea and the Contiguous Zone, 30 Can. B. Rev. 245, 263 (1952). For the opinion that Britain is opposed to contiguous zones only "to some extent," see Lauterpacht, Sovereignty over Submarine Areas, 27 Brit. Y.B. Int'l L. 376, 403 (1950), citing Croft v. Dunphy, [1933] A.C. 156.


187. Before turning from the subject of the law of the sea in time of "peace," it seems appropriate to mention, for purposes of completeness, the institution of "pacific blockade," another practice which, before the advent of the United Nations Charter, was recognized as lawful by many, and which enabled nation-states to control large areas of high seas in time of "peace" on occasion for no better purpose than the collection of debts. See generally Grob, The Relativity of War and Peace (1949); Hindmarsh, Peace in Peace (1933); Hogan, Pacific Blockade (1908); Giraud, Memorandum on Pacific Blockade, League of Nations Off. J., 8th year 841 (1927); Washburn, The Legality of Pacific Blockade, 21 Colum. L. Rev. 55, 227, 442 (1921).


for all practical purposes to close the high seas to enemy-neutral commerce.\textsuperscript{100} When policing procedures are supplemented not only by the more recent technology of aircraft, submarines, and mines, but also by the new administrative practices of navicerts, rationing of neutrals, ship warrants, bunker control, insurance and credit control, and black listing,\textsuperscript{101} control may be made even more complete, and the legal policy question becomes not merely whether belligerents may close the oceans to enemy-neutral traffic but also whether they may not order the observance of certain measures even within the territorial boundaries of non-participants. In such a context, freedom of the seas, even in its most rational sense, recedes almost completely in world prescription before certain other values summed up in the military necessities of bodies politic struggling for survival.

\textbf{The Hydrogen Bomb Tests As Reasonable Measures for Security}

The claim of the United States which is under discussion may be described factually as a claim to use territory (Bikini and Eniwetok Atolls) over which it has jurisdiction, for the purpose of conducting tests of thermonuclear weapons, a use which has the effect of excluding others temporarily from large surrounding areas of the high seas. The United States has established warning zones from time to time which serve to inform mariners of the extent of the area in which danger exists.\textsuperscript{102} No authority to enforce observance of warning zones has been asserted, but as a practical matter observance follows because of the danger from the tests themselves.\textsuperscript{103}

The extent to which the bomb tests have actually interfered with commercial navigation, in spite of the size of the area affected, is virtually nil. No commercial maritime route crosses any part of the warning zones which have been established, and the nearest sea route of any importance, that followed by ships plying between Honolulu and Manila, passes some 165 miles north of the outer edge of the largest warning zone.\textsuperscript{104} The next nearest trade route,

\textsuperscript{190} See, generally, Higgins & Colombos, op. cit. supra note 188, cc. 14, 16-18, 20; Smith, op. cit. supra note 188, cc. 8-14.


\textsuperscript{192} See text at notes 19-24 supra.

\textsuperscript{193} Thus far, authority to exclude others has been asserted only with respect to Bikini and Eniwetok and their territorial waters. See Notices cited notes 20-23 supra. However, at the time of the first atomic bomb tests at Bikini in 1946, the late Admiral Blandy asserted that any intruders in the immediate test area would be ejected by force if necessary. N.Y. Times, June 26, 1946, p. 7, col. 5.

\textsuperscript{194} U.S. Navy Hydrographic Office, Track Chart of the World (No. 1262, 27th ed. 1943) (excerpt reproduced opposite p. 650 supra); U.S. Maritime Comm'n, Essential Foreign Trade Routes 17, 28 (1949). See also Letter from Serge G. Koushmareff, Deputy
Honolulu to the Torres Strait, lies 420 miles southeast of the warning zone and some 660 miles from Bikini. One commercial air route, that between Wake Island and Guam, was deflected northward by the largest zone, making it necessary for two to three flights weekly to follow a route fifty miles longer than usual during the fifty-seven days that the zone was in effect. Analysis of maritime routes indicates not only that interference with navigation caused by the zones was slight, but that few if any sea areas of comparable size in the world are less essential to international navigation, with the possible exception of the Antarctic.

Furthermore, the amount of interference with fishing caused by the existence of the warning zones appears to have been slight. Fishing for tuna, ship-jack, and bonito has been carried on by the Japanese in waters which were within the warning zones, but the minor character of the interference with fishing attributable to the zones is indicated by the fact that in prewar years the catch from the entire area of the Japanese Mandated Islands, of which the zones covered only a small part, amounted to far less than one per cent in value of the annual fisheries production of the Japanese Empire. The annual tuna catch from the waters within the largest warning zone (400,000 square...
miles), in effect for fifty-seven days, amounted to a fraction of the seven percent of Japanese tuna production attributable to the entire Bonin and Mandated Regions area (approximately 2.5 million square miles). Moreover, since tuna are found throughout the North Pacific, it seems probable that fishing could have been deflected to areas adjacent to the zone with little if any loss in yield.

Plainly no existing prescriptions in the regime of the high seas are literally applicable to the unique problem presented by the tests. The United States claim bears no similarity whatever to those which, historically, "freedom of the seas" was intended to combat. Others are not excluded from the area affected in order to enable the United States to grant fishing monopolies to its nationals or to pursue the commercial aggrandizement of the United States in any way. It is apparent, also, that the claim of the United States offers no serious interference with the policies of promoting commercial navigation and fishing which underlie "freedom of the seas." Moreover, the claim does not offend against the subordinate policies against international friction which are involved in claims to exercise police powers on the high seas. No ships are seized or condemned, nor is civil or criminal jurisdiction of any kind asserted.

What is relevant, and can be applied without irrational extrapolation, to this new problem from prior prescriptions in the regime of the high seas is the test of reasonableness which underlies them all—the test by which the decision-makers of the world community have consistently during modern times decided between claims to navigation and fishing and all that great variety of claims, recounted above, which may interfere with navigation and fishing, and ranging, as we have seen, through all the labels of "territorial sea," "contiguous zones," "piracy," "self-defense," "continental shelf," and so on, even to "freedom of the seas" itself. Because of their support of this

200. Allen, Fishery Geography of the North Pacific Ocean, 43 GEOGRAPHICAL REV. 558, 561 (1953).
201. See notes 83-84 supra and accompanying text.
202. It may require explicit statement that Dr. Margolis' separate exposition of "the law of fisheries," Margolis, pp. 640-41, adds no new authoritative prescription or policy to those elsewhere expounded under the headings of "freedom of the seas" and "pollution." The different expositions refer to the same facts, the same legal technicalities, and the same policies. Lack of homogeneity in argument should not be taken for multiplicity in relevant prescription.

The concept of "abuse of rights," in particular, is merely an impressive-appearing circumlocution, fancied in some circles, for unreasonable behavior.

203. Our emphasis is of course upon the reasonableness test which underlies specific applications of the "freedom of the seas" principle. As has been seen, text at notes 172-77 supra, the right to use the seas for such space-consuming activities as trawling, dredging, and conducting dangerous maneuvers and peacetime defensive activities, has always been claimed under "freedom of the seas," at least where no civil or criminal jurisdiction to enforce exclusion has been asserted. One might, however, derive a similar conclusion even
test, all the decisions sustaining claims which interfere with navigation and fishing, whether for contiguous or non-contiguous uses, may be regarded as relevant authority for appraising the claim of the United States. The claim of the United States must enjoy, of course, whatever contribution to reasonableness the factor of contiguity may make, since the United States has jurisdiction not only over the land areas within the warning zones, but also over all land areas whatsoever for nearly a thousand miles. Beyond propinquity to controlled shores, the United States may, however, point to many

domestic exposition of the principle. If "freedom of the seas" is an absolute, as Margolis, p. 634, says it is, it may therefore reasonably be asked why the seas are not as "free" for nuclear weapons tests conducted in the interests of survival of the West, as they are for navigation and fishing.

204. It is worthy of note that contiguity has never been a particularly important fact in claims to conduct dangerous maneuvers or exercises at sea, perhaps for the reason that non-contiguous warning areas are often less of an interference with international navigation and fishing than zones near the claimant nation's shores would be. For examples of totally non-contiguous warning zones, see U.S. Hydrographic Office, Notice to Mariners, pt. I, No. I, para. 33 (Jan. 1, 1955). Prescriptions relating to piracy and self-defense, similarly, have not depended on contiguity, but authorize unilateral action on the high seas wherever and whenever it may be necessary. See notes 150-53 supra.

The factor of propinquity, with respect to any type of claim, is but a physical factor important for its bearing upon the reasonableness of a particular claim. The test of reasonableness is not determined by this factor alone, or limited to contexts in which it is present. In contexts where it is not present, other factors may perform a comparable function in offering indices of reasonableness. Contiguity may be expected to lose much of the importance which has been attributed to it as technology inexorably pushes national interests outward, and demands uses of the seas yet unforeseen. For suggestion of possible future developments, see SMITH & CHAPIN, THE SUN, THE SEA, AND TOMORROW (1954).

A concept which already bridges whatever gap there may be between contiguous and non-contiguous claims is the doctrine of "hot pursuit." This highly interesting doctrine is the product of interaction between the claims of nation-states to make effective their protective jurisdiction in marginal seas, and other states' demands for reasonable limitation of such claims. See Dickinson, Jurisdiction at the Maritime Frontier, 40 HARV. L. REV. 1, 21 (1926). "Hot pursuit" enables states to seize and condemn ships anywhere on the seas, so long as the seizure is made in the course of an immediate and uninterrupted pursuit which began in adjacent seas. See, generally, HIGGINS & COLONIOS, THE INTERNATIONAL LAW OF THE SEA 10-11 (2d ed., Colombos 1951); SMITH, THE LAW AND CUSTOM OF THE SEA 55-56, 114 (2d ed. 1950); BRIGGS, THE LAW OF NATIONS 348, 335-38 (2d ed. 1952).


Having full powers of government over the areas, the United States has, of course, for all practical purposes the same powers over sea areas contiguous to Bikini and Eniwetok that it would have over seas contiguous to its own continental shores. See Harvard Research Draft on Territorial Waters 259 (1929); International Law Commission, Report, U.N. General Assembly Off. Rec., 9th Sess., Supp. No. 9, at 15 (Doc. No. A/26931 (1954); id., 8th Sess., Supp. No. 9, at 19 (Doc. No. A/2456) (1953). For approval of an exercise of arrest and seizure powers by a mandatory state at a distance of 100 miles seaward from the coast of the mandate, see Naim Molvan v. Attorney-General for Palestine, [1948] A.C. 351, 369; Note, 10 CAMB. L.J. 269 (1949); Note, 24 N.Y.U.L.Q. 439 (1949). For further elaboration of the powers of the United States as Administering Authority of the Territory of the Pacific Islands, see text at notes 245-85 infra.
other factors as indices of the reasonableness of its claim, factors comparable to those which prior decision-makers have invoked to sustain so great a variety of claims to non-contiguous uses. The factors most relevant for appraising the United States claim are that it is for a purpose much honored in world prescription, that it asserts the least possible degree of authority necessary to the achievement of its purpose, that it is limited both in area and in duration to the minimum consistent with its purpose, that the area which it affects is of relatively slight importance to international trade and fishing, and that it is asserted in a context of crisis which makes its purpose of paramount importance to all who value a free world society.

The claim of the United States is in substance a claim to prepare for self-defense. It is not, as commonly in self-defense, a claim to respond with force to an attack; it is no claim to invade territory or to sink fleets in anticipation of attack or to take any of the other measures of drastic interference with others commonly subsumed under self-defense. It is, however, a claim to take certain preparatory measures under conditions comparable to those traditionally held to justify measures in self-defense. It is a claim to take certain actions in contiguous zones and upon the high seas, with the minimum possible interference with others, under conditions of high necessity. The conditions of this grave necessity and the absence of reasonable alternatives are familiar knowledge. The contemporary development of instruments of destruction makes it possible for a war-bent nation-state utterly to destroy an opponent and perhaps much of the world. It has not been possible to establish, under the United Nations, commitments and procedures of global scope which offer reasonable assurance against aggression. As expectations of imminent violence in the world arena have become ever more realistic and intense, many of the nations of the free world have organized themselves, under appropriate provisions of the U.N. Charter, into regional groupings for their more effective self-defense. The United States has undertaken its program of atomic and thermonuclear weapons development to ensure that these coalitions of free nations are not lacking in the retaliatory power which may deter aggression, or in the weapons of self-defense if deterrence fails.

Even prior to the bipolarization of the world and the development of nuclear weapons, it was generally agreed that a nation-state could, under the necessities of self-defense, take the most drastic measures in interference with what would otherwise have been the rights of others. Some of the historic examples of the exercise of this right of self-defense have been recounted above and others may be found in all the texts. So fundamental is the

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207. The tests have in addition a purely defensive utility, wholly apart from deterrence and retaliation. Those who are inclined to doubt this defensive utility of the tests may with profit attempt to estimate the number of lives which would be saved, in the event of an attack upon the United States or another western nation, by knowledge of the magnitude and character of radioactive fallout gained in the tests of 1954, now being disseminated by civil defense organizations.
underlying policy, in a world without adequate centralized authority for the maintenance of public order, that an express exception for self-defense is an integral part of the prohibition of violence which appears in the United Nations Charter.\textsuperscript{208} Exercised in the first instance by the nation-state whose existence is threatened, but subjected also to review for reasonableness by external decision-makers, this right is no nullification of world order but one of the few remaining instruments by which world order may be sought.\textsuperscript{209}

If, therefore, the present legal organization of the world and posture of world affairs put so high a premium upon self-defense, with authorization of potentially the most drastic interferences with others, it cannot, we believe, be reasonably concluded that it is unreasonable for the United States to engage in temporary and limited interferences with navigation and fishing upon the high seas in preparation for defense of itself, its allies, and all the values which they cherish.

The attack upon the legality of the United States claim to conduct the Pacific tests is made, perhaps it should be added, under the beneficent assumption that the claim is made "in time of peace."\textsuperscript{210} It is, however, no longer original to suggest that "peace" is scarcely an accurate description of the contemporary relation between the free and the totalitarian worlds. Indeed, as expectations of violence continue to increase, and as the world approaches perilously near the polar extreme of war, the literature of international law reflects increasing dissatisfaction with the traditional war-peace dichotomy, and its unrealistic, mutually exclusive world prescriptions.\textsuperscript{211} While there has been little overt recognition, in the formulation of prescriptions, of the erosion

\textsuperscript{208} U.N. Charter art. 51.

\textsuperscript{209} The indispensable complementarity in world prescription of concepts of unlawful violence, such as "aggression," and of self-defense sometimes escapes commentators. See, for discussion, Pompe, Aggressive War 55 (1953); Stone, Legal Controls of International Conflict 242, 330 (1954).

It must be either obscurity with respect to this fundamental characteristic of legal prescription or else peculiar French reaction to historic, inordinate German demands that explains Gidel's surprising reservations, in his otherwise brilliant study, concerning the role of "self-defense" in authorizing claims to control upon the high seas. See, Gidel, Memorandum 8. The external decision-makers who pass upon the reasonableness of claims need yield no more to arbitrary and dogmatic absolutism in the name of "self-defense" than in the name of unlawful violence. The one concept is as amenable to rational application as is the other. It surpasses understanding, furthermore, why self-defense should be regarded as so important in the "territorial sea" and suddenly cease to be important upon the passing of some imaginary line in the water.

\textsuperscript{210} Margolis, p. 635.

\textsuperscript{211} The most cited studies are Grob, The Relativity of War and Peace (1949), and Eagleton, The Attempt to Define War, Int'l Conciliation No. 391 (1933). See also Stone, Legal Controls of International Conflict 312 (1954); Wright, A Study of War 10 (1942); Borchard, War and Peace, 27 Am. J. Int'l L. 114 (1933); Jessup, Should International Law Recognize an Intermediate Status Between Peace and War?, 48 id. 93 (1954); Jessup, Intermediacy, 23 Nordisk Tidsskrift for Internationale Ret 16 (1953); McNair, The Legal Meaning of War and the Relation of War to Reprisals, 11 Trans. Grotius Soc'y 29 (1926); Ronan, English and American Courts and the Definition
of this misleading dichotomy, the more flexible areas of customary law have long since responded to the nuances of change in factual context. In the determinations of reasonableness which are necessary throughout the law of the sea, decision-makers have simply accorded progressively greater deference to the need of individual states to take unilateral measures for their security.\footnote{212} A similar realism might be invoked to reinforce the conclusion that the claim of the United States to conduct hydrogen bomb tests is, under contemporary conditions, a reasonable assertion which contravenes no prescription or policy of the international law of the sea.\footnote{213}

It is obviously not necessary, in order to establish the lawfulness of the hydrogen bomb tests, to establish the further lawfulness of the use of such bombs against any enemy under all conceivable circumstances in any possible future war. Since, however, various broad assertions have been made that any use of such bombs would or might be illegal under the law of war,\footnote{214} a few considerations may be noted.

It would, in the first place and most relevantly, seem clear that any prior use of such weapons by an enemy would immediately authorize the United States to use the same weapons in reprisal.\footnote{215} The whole purpose of the law of reprisal in relation to the prohibitions of the law of war, like that of self-defense in relation to aggression, is to permit the use of what would otherwise be lawless violence as a sanction against lawless violence.\footnote{216}

\footnote{\begin{itemize}
  \item It is perhaps worth mentioning that the neat “legal” dilemma, set up in Margolis, p. 636, that “the greater the degree of precaution” the United States takes to warn people out of the danger zones, “the greater the interference with freedom of navigation on the high seas,” assumes his answer to the very question in issue: that the warning zones established by the United States are unlawful. In popular parlance this is known as levitation by one’s own bootstraps.
  \item Id. at 351.
  \item Albrecht, War Reprisals in the War Crimes Trials and in the Geneva Conventions of 1949, 47 AM. J. INT’L L. 590 (1953).
  \item Suggestions occasionally found in the literature that the doctrine of reprisals is a negation, rather than a sanction of law reflect again a lack of understanding both of the complementarity of prescription in the whole law of war and of the indispensability of self-help sanctions in a decentralized world order. McDougal, supra note 211, passim.
\end{itemize}}
It would, in the second place and with scarcely less relevance, appear most difficult for a contemporary decision-maker to achieve a complete prohibition against the prior use of such weapons by generalization from prescriptions created with respect to very different weapons in a very different world. There is no express prohibition of the use of nuclear weapons in either customary or conventional international law, and the argument for prohibition is derived by "analogy" from prescriptions with respect to poisonous gas and arms and other weapons causing disproportionate suffering. In international as in municipal law, however, analogies in prescription and decision are relevant only for the policies which infuse them.

The fundamental policy which underlies the various analogies invoked with respect to nuclear weapons, as well as the prohibitions with respect to all other weapons and indeed the law of war generally, is the minimum destruction of values—that is, the balancing of "military necessity" for "legitimate objectives" against "humanitarianism" and the disproportionate or irrelevant destruction of values. The Achilles heel in this policy is, in common knowledge, that the decision-makers of the world community have never been able to become very precise about the "legitimate objectives" of violence or, hence, about the degree of destruction permissible under "military necessity"; and in the contemporary bipolar world, with totalitarians and proponents of the dignity of man confronting each other in mortal struggle, agreement upon these fundamentals seems less likely than ever. It is not necessarily a mark of moral superiority, but perhaps rather of suicidal arrogance, to suggest that no possible uses of the hydrogen bomb could conceivably be within the scope of "military necessity" for objectives legitimate by standards of respect for human dignity.

It would appear the most rational course to withhold

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217. For citations see note 214 supra.

218. In making this generalization and in this whole analysis of the lawfulness of possible use of the hydrogen bomb, we draw upon Felicisco, LEGAL REGULATION OF TRANSNATIONAL COERCION: STUDIES IN THE LAW OF WAR (unpublished thesis in Yale Law Library 1954).


The vagaries that ensue with respect to "military necessity" may be sampled in 3 Dunbar, MILITARY NECESSITY IN WAR CRIMES TRIALS, 29 BUR. Y.B. INT'L L. 442 (1952); Downey, THE LAW OF WAR AND MILITARY NECESSITY, 47 AM. J. INT'L L. 251 (1953); 1 Stone, supra note 214, at 337.

220. Note the careful outlining of relevant considerations in Stimson, THE DECISION
blanket judgment and to appraise each specific use of nuclear weapons, as most other weapons and destructive practices are appraised, in the total context of such specific use.

It is not the particular physical modality of destruction that is relevant to law and policy but rather the purposes and the effects of the destruction and the relation of these purposes and effects to the values of a free world society. Certainly proponents of the dignity of man cannot rationally expect, by writing self-inhibiting meanings into the concepts of "military necessity," "legitimate objectives," and "humanitarianism," either to preclude totalitarians from writing in different meanings, or to deter them from raining destruction from the skies.

THE BALANCING OF SECURITY AND POLLUTION IN DETERMINING REASONABLENESS

The argument against the tests based on "pollution" introduces no principle or policy not already considered in connection with the law of the sea in general: it merely focuses attention upon one modality of possible interference with the competing uses of navigation and fishing. No international tribunal has ever held a nation-state liable in damages for pollution of the sea, or declared the existence of a duty to desist. The international regulation of pollution is at its merest inception, with prescriptions yet to be formulated. In this state of affairs, a decision-maker confronted with competing claims with respect to pollution and freedom of navigation and fishing can only resort to such sources as "general principles of law recognized by civil-

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221. Phillips, supra note 218, passim; Spaak, The Atom Bomb and NATO, 33 FOREIGN AFFAIRS 353 (1955). Contrast the attitudes expressed by Phillips and Spaak with the unrealistic attitude in SPAIGHT, supra note 214, at 274, approving area saturation bombing with its total destruction, yet concluding that atomic weapons are unlawful.


223. See the Trail Smelter Case, Award of April 16, 1938, and March 11, 1941, 3 U.N. REP. INT'L ARBITRAL AWARDS 1905, 1963; 1 GIDEZ, DROIT INTERNATIONAL PUBLIC DE LA MER 480-84 (1932). See, however, the carefully limited statement in 1 HYDE, INTERNATIONAL LAW 757-58 (2d ed. 1945).

224. The extremely limited degree of international agreement on restriction of sea pollution is indicated by the Convention drafted and opened for signature at the International Conference on Pollution of the Sea held in London during April and May 1954. Article II exempts naval auxiliaries, ships under 500 tons gross tonnage, ships in the whaling industry, and ships proceeding to ports not equipped with facilities for disposal of oil waste, from the obligation to refrain from discharging noxious substances in the restricted zones created by the Convention. Art IV exempts discharges to secure the safety of the ship, discharges resulting from damage or unavoidable leakage, and discharges of sediment not susceptible of being pumped or resulting from certain processes, "provided that such discharge is made as far from land as is practicable." Article III restricts enforcement of the Convention to the state of registration. International Convention for the Prohibition of Pollution of the Sea by Oil (mimeo unchecked copy 1954) (on file in Yale Law Library).
ized nations,” and considerations “ex aequo et bono.” The decision-maker thus resorting to national prescriptions with respect to “nuisance” generally, and the pollution of waters in particular, finds himself, despite an elaborate façade of technical terms, instructed only to apply the familiar and indispensable test of reasonableness. The innumerable forms which such controversies may indeed take makes it impracticable to adopt any standard more explicit than that of reasonableness, determined by the familiar process of balancing the “utility of the conduct” causing damage, and the “gravity of the harm” to the injured party. In applying municipal law to controversies between nation-states, there is, however, one new and most significant factor which must be taken into account in determining reasonableness, and that is the factor of security. Any balancing of interests which failed to take account of the demands for security which states must make in the contemporary world would, of course, be most unrealistic.

The attack upon the legality of the tests attempted by Dr. Margolis is, thus, not only couched in terms of an inadequate formulation of doctrine, but depends ultimately upon analogies which are fantastically inapt in both fact and policy. By focusing upon “serious magnitude” of damage as the sole legal test, he neglects to consider the most important element in the problem: the overriding utility of the tests to the free world. This one-sided method of calculation is, of course, not to be found in the very cases he cites. The principal case relied upon, the Trail Smelter arbitration, is indeed a pass-

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226. For extensive citation of authorities in American law, see McDougal & Haas, Property, Wealth, Land 439-41 (1948). See also 1 Oppenheim-Lauterpacht 313 n.6; Gutteridge, Abuse of Rights, 5 Camb. L.J. 22 (1932); Winfield, Nuisance as a Tort, 4 Camb. L.J. 189 (1932); Haab, Das Sachenrecht, in 4 Kommentar zum Schweizerischen Zivilgesetzbuch, pt. 1, at 442-47 (2d ed. 1935); Warneker, Das Bürgerliche Gesetzbuch 604-07 (7th ed. 1938).
228. Margolis, p. 642.
229. See New Jersey v. City of New York, 283 U.S. 473, 480-83 (1931); New York v. New Jersey, 256 U.S. 296, 314 (1921), cited by Margolis, p. 642 n.67. The Court did not find it necessary to balance the “magnitude of the harm” and the “utility of the conduct” in Missouri v. Illinois, 200 U.S. 496 (1906), because it found that no harm whatever had been proved. Id. at 526. It did, however, emphasize that unless the case was “of serious magnitude, clearly and fully proved,” it would not intervene at all. Id. at 521. Dr. Margolis has, thus, taken the maxim de minimis non curat lex for the whole law of nuisance. For a discussion of the balancing process in the Trail Smelter Case, see note 231 infra.
able illustration of the balancing process upon which the law of nuisance depends. But the fact that a copper company in British Columbia was required to take measures available to it to minimize damage to a downwind agricultural community, scarcely reflects policies relevant for appraising the reasonableness of measures taken in mid-ocean by a nation-state faced with imminent threats of atomic attack. Similarly, cases in which the United States Supreme Court settles internal disputes between member-states of the union are relevant only for their emphasis upon the underlying policy of reasonableness. Such internal disputes do not raise the issues of external security, since under our federal system it is the national government which is charged with responsibility for security and most other problems relating to the high seas.

The facts available as to the extent to which water and fish were made radioactive by the tests, and in what areas, leave much to be desired. Newspaper reports originating with segments of the Japanese press unfriendly to the United States, for various reasons, exaggerated the effects of the tests with "evident malice," and no complete, authoritative reports are yet available. It is not clear whether fish found to be dangerously radioactive were caught within or without the largest warning zone, established after the effects of the March 1st test became apparent, so that it is not possible to say whether

231. In the Trail Smelter Case, Award of April 16, 1938 and March 11, 1941, 3 U.N. REP. INT'L ARBITRAL AWARDS 1905, the arbitrators recognized the necessity of weighing all the circumstances when they defined "an injurious act," in effect, as an unreasonably injurious act. Id. at 1963. The decree permitted the smelter to continue in operation and to emit sulphur dioxide fumes in an amount presumably deemed reasonable. Id. at 1974 et seq. Trail Smelter is characterized as a "passable" illustration because it involved a balancing process on one level only. The tribunal did not clearly distinguish the separate questions whether damages could be recovered, and whether injunctive relief could be obtained. See notes 240-41 infra.


The arbitrators in the Trail Smelter Case, Award of April 16, 1938 and March 11, 1941, 3 U.N. REP. INT'L ARBITRAL AWARDS 1905, 1964, stated that such decisions are relevant where "no reason for rejecting such precedents can be adduced from the limitations of sovereignty inherent in the Constitution of the United States." (Emphasis added.)


235. Margolis, p. 638, asserts that radioactive fish were caught outside the March-May 1954 warning zone. These allegations are supported by a wire-service report, reprinted in the N.Y. Times, which quotes Professor Takajiro Mori of Tokyo University to the effect that radioactive fish were being caught "off Formosa" and "off Japan." In a somewhat inconclusive letter to the authors, Professor Mori suggests that by "off" Japan and Formosa he meant "about 450 miles from Bikini," which would be some 1500 miles from Japan and 2100 miles from Formosa, on the edge of the March-May warning area (450 miles in radius). Letter from Professor Takajiro Mori, Fisheries Dept., Faculty of Agriculture, Tokyo University, Hongo, Tokyo, Japan, to the Yale Law Journal, March 4,
safety measures in addition to the establishment of an adequate warning zone would be necessary if and when future tests are conducted. It seems clear that no injuries whatever resulted from consumption or handling of fish rendered radioactive by the tests, or from radioactive sea water. The safety measures taken by the Japanese Government were understandably drastic, resulting in

1955, on file in Yale Law Library. The AEC has consistently maintained that no danger from radioactive fish exists outside the test area. AEC Semi-Annual Report, excerpted in N.Y. Times, July 31, 1954, p. 1, col. 3. See also N.Y. Times, April 1, 1954, p. 20, col. 5.

No responsible source has yet made an unqualified assertion that any fish caught were dangerous to human beings. See Arnold, supra note 234, at 347-48; Japan Information Bull. No. 4, pp. 6-7 (Information Section, Embassy of Japan, Sept. 29, 1954). Arnold states that radioactivity in fish tends to concentrate in the liver, kidney, and other special organs, leaving the meat normally consumed relatively free of activity, "even in the most highly contaminated specimens . . . ." He concludes that "it seems likely . . . that . . . the tolerance level was set too low. It is unfortunate that 'normal' catches were not available for comparison." Arnold, supra note 234, at 348. Arnold's account of the facts suggests that (perhaps excepting condemnation of the fish in the open hold of the Fuhuryu Maru), the safety measures taken by the Japanese Government were valuable largely as an antidote to popular alarm. No difficulty with radioactive fish was experienced anywhere in the Territory of the Pacific Islands, although fishing was not restricted except in the immediate test area. See Communication from Deputy High Commissioner, Trust Territory of the Pacific Islands, to the Yale Law Journal, Feb. 25, 1955, on file in Yale Law Library.

Although the "fairly indisputable facts" alleged by Margolis, pp. 637-39, seem dubious in the extreme, we assume, for purposes of the judgments made in the text above, that safety would require monitoring of deep-sea catches from a broad area in the North Pacific for a period of time following a test series.

For a compendious collection of the more fantastic press reports which have appeared concerning not only radioactive fish but miscellaneous meteorological and other alleged effects of the tests, see Laurents, Experiment in Annihilation, 5 CONT. ISSUES 214 (1954).

236. See Japan Information Bull. No. 4, supra note 235, at 6-7, reporting on the test damage, and listing no casualties except the crew of the Fuhuryu Maru. Compare Margolis, p. 637, citing a third-hand wire service report to the effect that five crew-members of a Japanese freighter which passed within 1200 miles of the tests "were reported suffering from radiation sickness" and that doctors "were quoted as saying the five men were 'gradually recovering.'" N.Y. Times, June 5, 1954, p. 2, col. 6. The AEC has asserted that radioactivity borne on ocean currents would disperse to a point at which it would be "undetectable" within 500 miles or less. N.Y. Times, April 1, 1954, p. 20, col. 6.

Dr. A.H. Sturtevant, geneticist at the California Institute of Technology, cited by Margolis, p. 639 n.58, two weeks after his ominous speculations were excerpted in the N.Y. Times, wrote to caution that the danger at present fallout rates was very small, and that he did not think people should be unduly anxious about the problem. N.Y. Times, Jan. 30, 1955, § 4, p. 9, col. 8. The AEC later announced that the total amount of radiation from "all nuclear detonations to date," has amounted to the equivalent of one chest x-ray per person. Statement by Lewis L. Strauss, Chairman, USAEC Press Release, Feb. 15, 1955, p. 4. Amounts of radiation larger than this by some hundreds of times are habitually used by physicians and dentists for diagnostic purposes, and are, of course, considered negligible. See generally Ritter, et al, Roentgen Doses during Diagnostic Procedures, 59 RADIOLoGY 238 (1952). For the conclusion, buttressed by substantial data and detailed calculations, that the long-range radiation effects of tests are "minute" and "of a low order" in comparison with the natural background radiation in the earth and atmosphere, see Eisenbud & Harley, Radioactive Dust from Nuclear Detonations, 117 SCIENCE 141, 147 (1953).
the condemnation of some 176 tons of fish, but were 100 per cent effective.\textsuperscript{237} Domestic tuna prices in Japan plummeted to 50 per cent of normal in April 1954, after sensationalized accounts of the test effects were published, but exports were unaffected.\textsuperscript{238} In view of all the facts now known, any serious attempt to balance the stake of the free world in the tests against the damage resulting from pollution—damage which has taken the exclusive form of financial damage for which compensation has been paid—must reach, we submit, the conclusion that the tests are reasonable and hence lawful.\textsuperscript{239} 

It might of course be concluded, by analogy from municipal law, that although under all criteria of reasonableness a nation-state is entitled to conduct such tests under contemporary conditions, it should still be held responsible in damages for any inevitable injuries to innocent parties. In every mature legal system the balancing process which determines whether liability exists is repeated in answering the entirely separate question whether the liability-creating conduct may be continued.\textsuperscript{240} No international tribunal has yet unequivocally faced the issue whether a state may continue to carry on conduct for which it is liable in damages,\textsuperscript{241} but sound policy...
decrees that international law should parallel municipal law in this respect.\footnote{242}\footnote{243} Although no legal issues were formally resolved between Japan and the United States, the settlement in fact reached a desirable legal result. Japan explicitly refused to demand that the United States discontinue its tests,\footnote{243} and the United States paid two million dollars in damages "without reference" to questions of legal liability.\footnote{244} Only third parties, unembarrassed by responsibilities for the defense and security of the free world, seem unable to perceive the need for an appropriate discrimination between remedy for damage and mutual tolerance for vital interests.

**The Expectations With Respect to Security Created by the Charter and Trusteeship Agreement**

After wresting the islands of the Pacific from Japan at an immense cost in blood and treasure, the people of the United States were determined that these strategically important islands should never again be allowed to fall into the hands of an aggressor nation or to jeopardize the security of the United States in any way. An influential segment of public opinion favored annexation of the islands as the only satisfactory solution, but the American anticolonial tradition made annexation repugnant to many.\footnote{245} The trusteeship provisions of the United Nations Charter, proposed in large part by the United States with the Pacific islands in mind,\footnote{246} reflect a compromise between these demands for annexation and our antipathy to colonialism. The question squarely by referring to the clause of its *compromise* which emphasized the desire of the parties to reach a final solution of the controversy. The United States in *Trail Smelter* argued that a state may not continue activity which inflicts legally compensable "injury," \id.\ at 1962-63, an attitude which may be responsible for its desire to settle with Japan "without reference" to questions of legal liability. \See text at note 244 infra.\footnote{244}

\textit{242. See Comment, 37 Yale L.J. 96 (1927), clarifying policies embodied in municipal law, which are rather obviously applicable in the contemporary world arena.}


\textit{244. N.Y. Times, Jan. 5, 1955, p. 6, col. 1.}

\textit{245. For review of the annexation controversy, and identification of public figures supporting the various points of view, see McKay, \textit{International Trusteeship—Rule of United Nations in the Colonial World}, 22 Foreign Policy Reports 54, 63-65 (1946); Sorens, \textit{World Law} 638 (1950).}

system of administration ultimately established in the Pacific islands similarly expresses both the demand of the United States for the utmost freedom of action in matters relating to the security of itself and the world, and its concomitant willingness to assume a duty to promote the welfare of the islands' indigenous inhabitants.

The provisions of the Charter relating to dependent areas and trusteeship areas incorporate and implement both these complementary goals of security and humanitarianism. The framers of the Charter discarded as unrealistic the non-fortification provisions of the League Covenant, which forbade fortification or other military use of "B" and "C" mandates, and substituted the policy expressed in Article 76, that the first of the basic objectives of the trusteeship system should be "to further international peace and security." Article 84 specifically obligates each administering authority to ensure that the trust territory shall "play its part" in the maintenance of international peace and security, and empowers the administering authority to make use of volunteer forces, facilities, and assistance from the trust territory. This fundamental shift from League policy is further emphasized by the fact that the word "security" appears no less than three times in Article 73, which declares the obligations of member-states with respect to non-self-governing territories generally.

At the instance of the United States, moreover, a new institution, the "strategic" trusteeship, was created by Article 82 of the Charter. This institution was proposed by the United States with a view to creating an appropriate regime for the Pacific islands, and they are, indeed, the only territory

247. "The chapters of the Charter relating to dependent territories and trusteeship create the machinery to accomplish these purposes [raising the standards of colonial administration, etc.] and at the same time to make it possible fully to protect the vital security interests of the United States with respect to any territories in the Pacific and elsewhere which, by later agreement, may be included in the trusteeship system." Hearings, supra note 246, at 113. See also Goodrich & Hambro, Charter of the United Nations 452-54 (1949); Gross, United Nations Trusteeship and League of Nations Mandate Systems, 4 India Quarterly 224 (1948).


249. Cf. Kelsen, Law of the United Nations 557-58, 559 (1950): "But it is significant that in an Article the main purpose of which seems to be to provide for protection of non-self-governing peoples, the promotion of international peace and security which may impair this protection, is referred to twice." Professor Kelsen also notes that the implementing section of the article is made subject to "such limitation as [national] security and constitutional considerations may require." Id. at 561.

The preeminence of security in the trusteeship provisions of the Charter is of course a reflection of the fact that the principal purpose of the Charter as a whole is the maintenance of international peace and security. For elaboration of this major purpose of the Charter, see McDougal & Gardner, The Veto and the Charter: An Interpretation for Survival, 60 Yale L.J. 258 (1951); Gross, supra note 247, at 225, 238.

250. McKay, supra note 245, at 57; Hearings, supra note 246 at 113, 116.
to which it has ever been applied. All functions of the United Nations relating to strategic trusteeship territories were, as was provided in Article 83, to be exercised by the Security Council, where any of the five permanent members could veto any action which it believed might threaten its own individual security. In the same Article, however, the basic objectives of the trusteeship system set forth in Article 76, including those with respect to the welfare and fundamental human rights of the inhabitants of an area, were made applicable to “strategic” trusteeships, and the Security Council was directed, “subject to the provisions of the trusteeship agreements and without prejudice to security considerations,” to avail itself of the assistance of the Trusteeship Council to perform functions relating to political, social, and educational matters in strategic areas.

The principal constitutional document under which the United States governs the Territory of the Pacific Islands is the Trusteeship Agreement for the Former Japanese Mandated Islands, effective July 18, 1947, in which the Security Council “satisfied itself” that “the relevant articles of the Charter have been complied with.” This fundamental charter of authority confers upon the administering authority “full powers of administration, legislation and jurisdiction” over the territory, and authorizes it to apply, “subject to any modifications which the administering authority may consider desirable, such of the laws of the United States as it may deem appropriate to local conditions and requirements.” Article 5 of the agreement reemphasizes the departure from the non-militarization regime of the League by conferring upon the administering authority a power similar to the “war power” of the United States Constitution, in terms limited only by denial of the power of conscription.

The United States is empowered:

1. to establish naval, military and air bases and to erect fortifications in the trust territory;
2. to station and employ armed forces in the territory; and
3. to make use of volunteer forces, facilities and assistance from the trust territory . . . ."
The Agreement gives to the United States control over the foreign affairs of the Territory,\textsuperscript{257} power to combine it with other territories under United States jurisdiction for customs, fiscal, or administrative purposes,\textsuperscript{258} power to discriminate in favor of the United States in economic matters despite the equal treatment clause of the Charter,\textsuperscript{259} and power to bar all U.N. supervision in "areas which may from time to time be specified" by the United States as "closed for security reasons."\textsuperscript{260} The terms of the Agreement may not be altered, amended, or terminated without the consent of the Administering Authority.\textsuperscript{261}

The comprehensive powers thus granted the Administering Authority are, however, accompanied by certain parallel duties. The Charter itself, of course, requires the administering authority to ensure the political, economic, social, and educational advancement of the inhabitants, their just treatment, and their protection against abuses, and to encourage respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion.\textsuperscript{262} All members of the United Nations agreed, further, to accept as a "sacred trust" the obligation to promote to the utmost, "within the system

\textsuperscript{256} infra, so that the Soviet Union's proposed interpretation would have been an unwarranted extension of its power to thwart defense preparations. The Soviet view was rejected by the General Assembly and its Fourth Committee. See GOODRICH & HAMNER, \textit{op. cit. supra} note 247, at 458-59; Gross, \textit{United Nations Trusteeship and League of Nations Mandate Systems}, \textit{4 India Quarterly} 224, 227-28 (1948).

In Committee II/4 at the San Francisco Conference, the delegate from Egypt moved to amend the Working Paper submitted by the United States (eventually Article 84 of the Charter, from which the military powers of the United States as Administering Authority derive) to provide that the administering authority "[may] . . . under the control of the Security Council" utilize facilities and assistance from trusteeship territories. Doc. No. 580, II/4/24, 10 U.N. CONF. INT'L ORG. DOCS. 488 (1945). In support of the motion it was said that without the amendment the power of the administering authority to make use of facilities and assistance in trusteeship territories would "be absolute, a situation which would be undesirable for the peoples of the territory." \textit{Ibid.} The amendment was defeated by 26 votes to 2. \textit{Ibid.} See also Gross, \textit{supra}, at 231: "the new approach is dominated by considerations of national security to an extent and in a manner unknown to the Mandate System . . . . The Trusteeship System appears to be founded on the idea of the paramountcy of the national security interests of the administering authority."


\textsuperscript{257} \textit{Trusteeship Agreement} arts. 8(4), 10.
\textsuperscript{258} \textit{Id.}, art. 9.
\textsuperscript{259} \textit{Id.}, art. 8(1).
\textsuperscript{260} \textit{Id.}, art. 13. The Security Council might, of course, investigate any dispute or situation to determine whether its continuance "is likely to endanger the maintenance of international peace and security," under \textit{U.N. Charter} arts. 34, 39, in the same manner and to the same extent as in relation to any other part of the world.

\textsuperscript{261} \textit{Trusteeship Agreement} art. 15.
\textsuperscript{262} \textit{U.N. Charter} arts. 73(a), 76(b), (c).
of international peace and security established by the . . . Charter, the well-being of the inhabitants of these territories."

In the Trusteeship Agreement, the United States voluntarily accepted greater and more specific obligations than were required by the Charter, to promote the political, economic, social, and educational advancement of the inhabitants. Economic advancement was to be secured by regulating the use of natural resources, encouraging the “development of fisheries, agriculture and industries,” protecting the inhabitants “against the loss of their lands and resources,” and improving “the means of transportation and communication.” The administering authority was to promote the social advancement of the inhabitants, and to this end to

“protect the health of the inhabitants; control the traffic in arms and ammunition, opium and other dangerous drugs, and alcohol and other spirituous beverages; and institute such other regulations as may be necessary to protect the inhabitants against social abuses . . . .”

Other obligations relating to the political and educational advancement of the inhabitants, and to civil rights, are similarly detailed.

Atomic tests had been held at Bikini in 1946 and reports of the test results filled the world’s newspapers throughout the period when the Trusteeship Agreement passed through the stages of preliminary discussion, drafting, and presentation of the Agreement to the Security Council. In this context, the debate on the Agreement in the Security Council confirmed by explicit multiple references that the United States was to be accorded virtually unrestricted powers in matters relating to security, whether its own or that of the world. The United States made its position clear by refusing even to consider any amendments which could be interpreted as detracting from its powers or limiting its complete discretion as Administering Authority in security matters. At one point in the debate United States Representative Warren R. Austin asserted that, while the United States would not exercise its veto power, if amendments unacceptable to the United States were adopted the agreement would be withdrawn, with American administration of the territory continuing in any event.

The Trusteeship Agreement was drafted by the United States State De-
partment after consultation with the War and Navy Departments,\textsuperscript{271} and in the view of its draftsman did not impinge upon United States "autonomy with respect to national security . . . in the slightest degree."\textsuperscript{272} As originally drafted, Article 3 of the Agreement gave to the administering authority full powers of administration, legislation, and jurisdiction over the territory "as an integral part of the United States."\textsuperscript{273} An amendment to delete the latter phrase was introduced by the Soviet Union, apparently to negate any inference that the Territory was ultimately to be annexed to the United States.\textsuperscript{274} The United States accepted the amendment, but was careful to make clear that it was not to be considered as having diminished its powers in the Territory by doing so:

"I want to say the following, because I think these words should be included in the record of this solemn proceeding . . . . In agreeing to this modification, my Government feels that for record purposes it should affirm that its authority in the trust territory is not to be considered as in any way lessened thereby . . . . For administrative, legislative and jurisdictional convenience in carrying out its duty towards the peoples of the trust territory, the United States intends to treat the trust territory as if it were an integral part of the United States."\textsuperscript{275}

After unanimous approval of the agreement by the Security Council,\textsuperscript{276} public hearings were held by the United States Congress to consider a joint resolution authorizing the President to approve it. Every witness was asked whether the agreement restrained the freedom of action of the United States in any way in the use of the Pacific islands for security purposes. Each witness replied in the most emphatic terms that the agreement gave the United States a completely free hand. The following colloquy is typical:

The CHAIRMAN (Senator Vandenburg). Mr. Secretary, . . . I would like to have your opinion as to whether there is anything in your opinion which in any degree handicaps or restrains our freedom of action in the use of these islands for security purposes.

Secretary MARSHALL. Mr. Chairman, I think the terms of the agreement have been so carefully drafted from the security point of view that there is no doubt in my mind that our security and our responsibility

\textsuperscript{271} \textit{Hearings before the Senate Committee on Foreign Relations on S.J. Res. 143, 80th Cong., 1st Sess. 11 (1947).} \\
\textsuperscript{272} Colloquy between Senator Vandenburg and Benjamin Gerig, Chief, Division of Dependent Area Affairs, Department of State. \textit{Id.} at 21. \\
\textsuperscript{273} \textit{Draft Trusteeship Agreement for the Japanese Mandated Islands, Far Eastern Ser., No. 20, at 4} (U.S. Dep't State 1947). \\
\textsuperscript{274} U.N. SECURITY COUNCIL OFF. REC., 2d year, 113th meeting 415 (1947). The purpose of the amendment is inferred from the general tenor of the several amendments offered by the Soviet Union, \textit{ibid.}, its acquiescence in the United States' qualified acceptance of the principal amendment, see text at note 275 \textit{infra}, and from the understanding of the purpose of the amendment revealed by other nations' representatives in debate. See, \textit{e.g.}, U.N. SECURITY COUNCIL OFF. REC., 2d year, 122d meeting 630-31 (1947). \\
\textsuperscript{275} \textit{Id.}, 116th meeting 473. \\
\textsuperscript{276} \textit{Id.}, 124th meeting 473.
for general security are fully provided for. I refer the members of the committee to articles 3, 5, and 13 of the agreement. I believe all our interests are fully conserved.

The Chairman. So far as the use of these islands for security purposes is concerned, in what degree do we have less authority than we would have if we continued to run them the way they are being run now?

Secretary Marshall. I think under the terms of this trusteeship agreement we are not limited at all . . .

The Chairman. So that you would say, as I understand you, that under the terms of the trusteeship agreement we have the same freedom of action on behalf of national security as we would have if we were continuing the administration of the islands under our present exclusive control?

Secretary Marshall. I think that is correct, sir.277

The purpose of the United States to secure virtually unlimited powers with respect to security matters in the trust territory was made clear not only to the United States Congress and the Security Council but to the whole world. Almost every commentator who has had occasion to discuss the agreement has remarked upon the broad scope of the security powers it confers,278 and those who favor strong international control over trust territories have bitterly attacked it as "an instrument of annexation, tempered with expressions of benevolence."279 The publicist Walter Lippman advocated annexation, calling it "hypocritical" to place the islands under trusteeship by an agreement permitting us "to do anything and everything we would do if we had annexed them."280

The view that the Agreement gave to the United States virtually unlimited security powers is confirmed by the subsequent conduct of both parties to the agreement. In December 1947, it was announced that experiments relating to nuclear fission would be held at Eniwetok,281 and the United States advised

277. Hearings, supra note 271, at 5. For comparable statements by Secretary of War Patterson, Secretary of the Navy Forrestal, General Eisenhower, and Admiral Nimitz, see id. at 11-2, 14-15, 18-19, 19-20. Secretary Patterson said, "The obligations we take under the agreement are merely obligations that we would fulfill to any people under our flag, even apart from the engagements and covenants in this agreement, as I see it—such things as their political . . ., economic . . ., social . . ., and educational development, and the basic freedoms that we would accord any people that were living under the United States flag." Id. at 12.


279. SCHUMAN, op. cit. supra note 270, at 599.


the Security Council that the area was "closed" for this specific purpose.\textsuperscript{282} Continuous reports of testing activities emanated from Eniwetok from 1947 onward, and tests relating to thermonuclear development were conducted in 1951 and 1952.\textsuperscript{283} In April 1953, the Security Council was notified that the United States had extended the "closed area" to include Bikini, again for the specific purpose of conducting tests "relating to nuclear fission."\textsuperscript{284} Although this course of action had in the beginning been the subject of official correspondence and perfunctory comment in the Security Council,\textsuperscript{285} and was a matter of continuing public knowledge, no nation, not even the Soviet Union, expressed any surprise or made any protest whatever.

It would scarcely seem necessary to recall, if various commentators had not focused upon the limitations in the Charter and the Trusteeship Agreement without adequate consideration of the powers granted,\textsuperscript{286} that the most fundamental principle of treaty interpretation, especially applicable to great constitutional charters, is "that the Treaty must be read as a whole, and that its meaning is not to be determined merely upon particular phrases which, if detached from the context, may be interpreted in more than one sense."\textsuperscript{287} As Judge Hudson has emphasized, when a treaty sets up a régime, each of its provisions must be construed "by reference to its place in a system."\textsuperscript{288} Powers can be given rational interpretation only in the context of the limitations imposed upon them; and conversely, limitations upon power can be given meaning only by reference to the powers which they are intended to limit. Hardly less fundamental than this principle that international agreements must be interpreted as a whole, with due regard being given to all parts, is the principle of "effectiveness"—the principle that agreements must be interpreted in context and primarily in terms of the major general purposes, the basic goals and expectations, which they are intended to serve.\textsuperscript{289}

\textsuperscript{282} Letter from Warren R. Austin, Representative of the United States of America, concerning the conducting of experiments relating to nuclear fission on Eniwetok Atoll in the Trust Territory of the Pacific Islands, U.N. Doc. No. S/613 (1947).

\textsuperscript{283} N.Y. Times, Nov. 17, 1952, p. 1, col. 8; \textit{id.}, May 26, 1951, p. 1, col. 4.


\textsuperscript{285} 5 U.N. SECURITY COUNCIL OFF. REC., 2d year, 222d meeting 2771-72 (1947).


\textsuperscript{288} HUDSON, THE PERMANENT COURT OF INTERNATIONAL JUSTICE 1920-1942, at 648 (1943).

\textsuperscript{289} Highest recent authority for the paramount importance of this principle is found in the Advisory Opinion of the International Court of Justice on Reparation for Injuries...
Thus the Harvard Research insists that the meaning to be given to an agreement is "not just any meaning which appeals to the interpreter . . . but a meaning which, in the light of the test under consideration and of all the concomitant circumstances of the particular case at hand, appears in his considered judgment to be one that is logical, reasonable, and most likely to accord with and to effectuate the larger general purpose which the parties desired the treaty to serve." In the black letter of its proposed Draft Convention on the Law of Treaties, the Research is concise and definitive:

"A treaty is to be interpreted in the light of the general purpose which it is intended to serve. The historical background of the treaty, travaux préparatoires, the circumstances of the parties at the time the treaty was entered into, the change in these circumstances sought to be effected, the subsequent conduct of the parties in applying the provisions of the treaty, and the conditions prevailing at the time interpretation is being made, are to be considered in connection with the general purpose which the treaty is intended to serve."

From the perspective of the major purposes of the parties to the United Nations Charter and to the Trusteeship Agreement, recounted in detail above, it almost belies credulity that a critic could suggest that the conclusion is "inescapable" that the hydrogen bomb tests are "clearly at variance" with supposed "unqualified imperatives" of the Charter and the Trusteeship Agreement. Such a suggestion ignores the broad grants of power to the Administering Authority contained in both documents, and attempts to construe the limitations upon those powers as autonomous, disembodied absolutes.


290. Harvard Research, op. cit. supra note 289, at 946.
291. Id., art. 19.
292. See Margolis, pp. 644, 645.
293. It may be observed further that Dr. Margolis' "dilemma" with respect to the "duties imposed by the U.N. Charter and the Trusteeship Agreement" that "the greater the precautions taken by the administering authority to protect the health of the Marshallese people, the greater the infringement of the rights guaranteed them" is, in his own words, "not unlike that created by the doctrine of freedom of navigation": it begs the very question in issue, whether the United States' activities are "infringements" of "rights" guaranteed, or "exercises" of "powers" granted, by the Charter and Trusteeship Agreement.
293. Few people today take seriously attempts so to construe national constitutions. It is commonly recognized that grants of power and limitations upon power are as indivisible as scissors' blades, and must be construed simultaneously in determining the rea-
The tests conducted by the United States in the islands may be subsumed most easily, in giving effect to the major purposes and expectations of the parties, under the broad powers conferred upon the United States to promote and protect both international peace and security and its own individual security. The Trusteeship Agreement specifically authorizes the use of "facilities and assistance" for the protection of international peace and security, and the broad powers reserved by the United States with a view to serving its own peculiar security needs have already been recounted. The reality of the role of the United States in promoting international peace and security is apparent from its enormous contribution in manpower and material to the collective United Nations action to repel aggression in Korea, and its continuing efforts to act through the United Nations to achieve disarmament, including prohibition of nuclear weapons, and the peaceful settlement of disputes. In an interdependent world, being made ever more interdependent by a continuously developing technology, even a disinterested observer should be able to discern some relation between the security of other nation-states and that of the United States. Proponents of a free world society and of a world order honoring human dignity should, in particular, recognize the urgency and lawfulness of governmental activity. Examples could be offered from the whole structure of constitutional prescription. A particularly striking example may be noted with respect to the First Amendment to the United States Constitution. Although the amendment provides that Congress "shall make no law . . . abridging the freedom of speech . . . ," the Government may limit absolute freedom under many different powers. See, e.g., Schenck v. United States, 249 U.S. 47 (1919); American Communications Ass'n v. Douds, 339 U.S. 382 (1950). See also Ex parte Milligan, 71 U.S. (4 Wall.) 2, 124-27 (1866); United States v. Russell, 80 U.S. (13 Wall.) 623 (1872); Duncan v. Kahanamoku, 327 U.S. 304, 324, 335 (1945) (concurring opinions of Chief Justice Stone and Justice Murphy).

294. Trusteeship Agreement art. 5.

At least five modes of pursuing "international peace and security" have been established under the Charter. Thus, action may be taken by the Security Council, by the "regional" organizations contemplated in U.N. Charter c. 8, by the General Assembly under the "Uniting for Peace" resolutions, by individual nation-states under the "self-defense" clause of U.N. Charter art. 51, and by organizations such as NATO, SEATO, the Brussels Treaty, the Arab League, and the Balkan Union, which are "collective self-defense" organizations under the same Article. See generally Beckett, The North Atlantic Treaty, the Brussels Treaty and the Charter of the United Nations (1950); Bebr, Regional Organizations—A United Nations Problem, 49 Am. J. Int'l L. No. 2 (1955); Kelsen, The North Atlantic Treaty and the Charter of the United Nations, 9 Acta Scandinavica Iuris Gentium 42 (1949); McDougal & Gardner, The Veto and the Charter: An Interpretation for Survival, 60 Yale L.J. 258, 288-92 (1951). Fortunately, only direct action by the Security Council, and possibly action by regional organizations based on Chapter VIII, are subject to prior control by the veto-bound Security Council. Effective use of the Uniting for Peace Resolutions and Article 51 regional organizations depends, of course, on the efforts of individual states to maintain forces and weapons in readiness in case of need.

295. See text at notes 253-61 supra.

296. For some of the interrelations of international and national security, see Wolfers, "National Security" as an Ambiguous Symbol, 47 Pol. Sci. Q. 481 (1952).
have no difficulty in finding a most intimate relationship. Even, however, if it be assumed, that there is no relationship between "international security" and the security of the United States, it is clear that the United States has reserved in the Trusteeship Agreement, in accord with the terms of the Charter, more than sufficient powers to conduct the tests in the interests of its own security.

It has been seen that the comprehensive powers accorded to the United States includes substantially all the powers it would have within its own boundaries, subject only to the exception that its "war" power does not authorize conscription. The right of eminent domain is implicit in the "full powers of administration, legislation and jurisdiction" and the power "to establish naval, military and air bases and to erect fortifications." It is therefore clear that the United States is empowered to use some land, and some facilities and assistance from the territory, and therefore that the duties of the Administering Authority with respect to the protection of land, encouragement of fisheries, and so on, are not "unqualified imperatives." By the most fundamental criteria of treaty interpretation, indicated above, it would also appear that the United States is authorized to use some land and facilities for the purpose of testing dangerous weapons: the testing of weapons is indispensable to preparation for defense under war and security powers; the fact that the United States had already tested weapons in the area made continued testing a part of the expectations of all the framers of the Trusteeship Agreement; and these expectations have been confirmed by seven years' conduct, sans protest, by both parties to the Agreement. The one remaining question is whether the tests conducted, though clearly subsumable under the powers granted to the United States, have assumed such unreasonable proportions as to violate the duties said to constitute limitations upon its powers.

Since the Pacific Islands became a Trust Territory, the United States has taken Eniwetok Atoll (2.26 square miles of land) for use in connection with its weapons testing activities. The 137 inhabitants of the atoll were resettled on land of their own choosing from the public domain, where buildings and facilities have been constructed for their use by the Administering Authority, and they have since been regarded as special wards of the government.

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297. See text at notes 255-60 supra.
298. TRUSTEESHIP AGREEMENT art. 3.
299. Id., art. 5.
300. Margolis, p. 644.
301. See text at notes 268-70 supra.
302. See text at notes 281-85 supra.
303. For illustrations of the necessity of a "reasonableness" test in the resolution of any constitutional issue requiring determination of the interrelationships of powers and limitations, see note 293 supra.
304. For the land area of Eniwetok, see N.Y. Times, Dec. 2, 1947, p. 24, col. 5.
In the process of conducting the first test in history of a "high-yield" thermonuclear weapon, the force of the explosion was underestimated by half, and wind predictions, ordinarily highly accurate at sea, were erroneous. Minor injuries were suffered, in consequence, by the inhabitants of Rongelap Atoll, from which they have since recovered with no prospect of permanent after-effects. The United States has given assurances that all meritorious damage claims will be honored promptly. Neither fishing nor any other activities of the islanders were curtailed by the tests except in the case of the 236 persons evacuated temporarily from Rongelap and Utirik after the test of March 1st. United States Representative Sears informed the Trusteeship Council, on the basis of "security information," that there is "no chance of a recurrence" of the mishap that occurred in March 1954.

For appraising reasonableness, it is material to note that if the United States had totally evacuated, in advance, every inhabited island affected by

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307. See note 26 supra.
308. See note 7 supra.

The assertions made by Margolis, pp. 639, 645 n.86, that the destructive power of nuclear weapons is "incalculable," and the injury to persons and property necessarily accompanies nuclear tests, are simply incorrect, if highest authority is to be believed. Sir Winston Churchill told the House of Commons, in April 1954, that "after full consultation with our technical experts," he could repeat the assurance previously given that there was "no foundation" for the suggestion that the explosions were "incalculable." N.Y. Times, April 6, 1954, p. 12, col. 3. See also Teller, The Work of Many People, 121 SCIENCE 267, 270 (1955); Statement by Admiral Strauss in N.Y. Times, April 1, 1954, p. 20, col. 1. The Report of the AEC of February 15, 1955, makes clear that, in view of the vast distances separating inhabited Islands in the Pacific, tests can be conducted with no danger of injury to anyone not participating in testing activities if certain simple precautions are taken. See note 35 supra. Had the fallout danger been known prior to the 1954 tests, most if not all injuries could have been avoided by the most elementary precautions. See Standing Committee on Petitions, U.N. Trusteeship Council, Summary Record 5 (Doc. No. T/C.2/SR. 197) (1954).
the March 1st explosion and its fallout, 236 people and a total land area of 4.01 square miles would have been affected. In order to put these figures in perspective, it might be noted that if the United States had constructed a large airfield on one of the more heavily populated islands, its action would have affected more people and more land for a longer time, although such action would be within the terms of the Charter and the Agreement under any conceivable interpretation. It seems clear that unless an imaginative view of the facts is taken, the United States has not taken, and is never likely to need, an amount of land in the territory for weapons testing purposes which could be considered disproportionate or unreasonable.

The duties to promote the welfare of the inhabitants of the Trust Territory assumed by the United States in the Charter and Trusteeship Agreement, including the duty to protect the inhabitants' land and resources, appear to have been performed in an exemplary manner. The specific target of the provision in the agreement relating to land was the colonial practice, widespread before the war, of economic exploitation of the natives' land for the benefit of outsiders, relegating the indigenous population to the status of laborers or tenants. In 1939, the population of the islands was 113,562 of which 73,028 were Japanese, and well over half the land in the islands was owned by the latter. By 1948 all the former Japanese residents had been repatriated to Japan, and the Administration had forbidden and still forbids acquisition of title to land in the territory by non-indigenous persons. Moreover, all land taken for public purposes has been replaced from the public domain. The extent to which the United States has carried out its duty to protect the health of the inhabitants may be seen in the fact that the indigenous population increased by nearly one-fourth in the first five years of United States administration, although it had decreased by one-fourth from 1935 to 1939, and in 1946 was reported "well on the way to extinction through disease."

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311. See note 35 supra.
315. Ibid.
communications, human rights, education, and standard of living is recounted in the Administering Authority's annual reports to the Trusteeship Council.°

The United States has repeatedly expressed its extreme regret that ill effects were suffered by the inhabitants of Rongelap as a consequence of its tests, and has promised both that it would give prompt and sympathetic attention to any claims for damage suffered in the past, and that nothing would be left undone to safeguard the present and future well-being of the inhabitants.° The Marshallese, acting through the authors of their petition to the Trusteeship Council, have expressed appreciation for the spirit in which the United States Government received their petition, and stressed that the petition should not be interpreted as a sign of lack of confidence in the United States as Administering Authority.° On July 15, 1954, the United Nations Trusteeship Council, before which the conduct of the United States had been drawn in question, accepted by nine votes to three a resolution vindicating the United States and recommending that:

"if the Administering Authority considers it necessary in the interests of world peace and security to conduct further nuclear experiments in the Territory, it take such precautions as will ensure that no inhabitants of the Territory are again endangered, including those precautionary measures requested by the petitioners."

Various commentators have urged that all tests be conducted henceforth within the United States. See, e.g., Margolis, pp.646-47; Arnold, Effects of the Recent Bomb Tests on Human Beings, 10 BULL. ATOM. SCIENTISTS 347, 348 (1954). The warning zone found necessary for conducting the 1954 Castle Series of tests in the Pacific was 400,000 square miles, equal to about one-seventh of the land area of the United States. While the danger of spreading radioactivity by ocean currents would be small or non-existent, so that a smaller danger area would no doubt suffice for tests conducted within the United States, evacuation of an area even remotely comparable to the Pacific zone would displace many thousands, and conceivably millions of people, and would radioactivate at least temporarily a vast area of useful land. Cf. Arnold, supra, at 348, making the incredible assertion that conducting tests in the U.S. would save money! It is reasonably obvious that the possible consequences of tests in the U.S. cannot seriously be compared with test consequences in the Marshalls. See note 35 supra. The area covered by the Trust Territory and that of the United States are both approximately 3,000,000 square miles, but the Trust Territory comprises only 846 square miles of land, of which islands totalling 166 square miles are uninhabited. See text at note 13 supra; U.S. DEP'T OF INTERIOR, 1951 REPORT ON THE ADMINISTRATION OF THE TRUST TERRITORY OF THE PACIFIC ISLANDS 68 (1953). The total population of the entire Territory is 57,037, ibid., approximately one-fourth that of Honolulu.

The authors do not profess to be qualified to say whether tests would be technically feasible in Alaska or the Arctic. However, these proposals by Margolis, pp. 646-47, raise
HYDROGEN BOMB TESTS IN PERSPECTIVE

FOR A FREE WORLD AND FREE SEAS

The prospect of the possible use of the hydrogen bomb against human beings is almost too horrible to contemplate. It appears probable that each half of the world will shortly have the capacity quickly to destroy the other: the common analogy of two death-dealing scorpions enclosed in a small bottle has become all too apt. Under these circumstances the need for the peoples of the world to agree upon and enforce workable plans for disarmament and world public order could not be more urgent. We bow to none in recognition of this need and in demand for rational response. We do not, however, regard it as rational response for the free world unilaterally to disarm itself by the unnecessary extrapolation of broad prescriptions from the customary international law of the sea, created for other purposes, or by the narrow and technical interpretation apart from context of selected phrases from great international charters. Until a reasonably secure world public order can be established, the free half of the world has no alternative but to make certain that it remains a scorpion and does not invite transformation into inanimate radioactive dust. It is only by maintaining their capacity to defend their free institutions that proponents of human dignity can hope to achieve by peace.

interesting questions with respect to his arguments derived from the U.N. Charter and the "freedom of the seas" principle. Alaska is a "Non-Self-Governing Territory" to which Article 73 applies, YEARBOOK OF THE UNITED NATIONS 1948-1949, at 729-30 (U.N. Pub. Sales No. 1950, 111), and the regime of the high seas applies at the least to unfrozen areas of the Arctic. Franklin & McClintock, The Territorial Claims of Nations in the Arctic, 5 OKLA. L. REV. 37, 43-44 (1952). It thus appears to be Margolis' position that tests in these areas would be more reasonable than tests elsewhere.

The facts suggest a different answer. Even if tests in Alaska and the Arctic are technically feasible, these areas are subjected to extremely erratic high winds, see, generally, CANADA DEPT OF TRANSPORT, METEOROLOGY OF THE CANADIAN ARCTIC 12-15, 53-55 (1944), which could create intolerable danger for those conducting the tests, and might spread the effects of the fallout over vast distances. Moreover, accessible parts of both Alaska and the Arctic are closer to better fisheries, more heavily traveled navigational routes, and more heavily populated areas. Indeed, Alaska is closer to the mainland of Japan than is Bikini. Margolis is, finally, in error in asserting that the United States has laid claim to an arctic "sector." The United States is most persistent among the many states which unqualifiedly reject the validity of the "sector" theory. See U.S. NAVAL WAR COLLEGE, INTERNATIONAL LAW DOCUMENTS 1948-1949, at 243-44 (1950).

In sum, there seems no reason to doubt the assertion of the United States that the Marshall Islands "were selected only because there is no other place in the world over which the United States has jurisdiction where . . . [these] experiments could be successfully conducted with less danger." Mason E. Sears, U.S. Mission to the United Nations Press Release No. 1937, July 13, 1954.

322. World order does indeed depend upon "law," see Margolis, p. 646, but law has little relation to the suicidal invocation and extrapolation of irrelevant, absolutistic labels. The proponents of human dignity face enough difficulties in their struggle for survival without inflicting unnecessary psychological wounds upon themselves. The prestige of the United States that matters, as does that of other bodies politic, not upon subservience to such labels, but rather upon the intensity of its dedication to the goal values of human dignity and its clarifying and adhering to an international law which rationally promotes such goal values.
ful procedures a world public order which can continue to maintain that defense. Without at least a portion of the world defended in its freedom it would be folly to talk of freedom of the seas and the welfare of dependent peoples, both impossible to isolate from the freedom and welfare of a whole interdependent free world. The only rational policy for proponents of human dignity today is to demand, and to demand from a strength which insures respect, not merely spurious or naive legalisms and not merely freedom for navigation and fishing and the narrowly conceived and unrealistically isolated welfare of a few scattered peoples, but workable prescriptions and institutions for global disarmament and a world public order which will afford opportunity for the increasing freedom and welfare of all peoples in the full exploitation of all the world's riches.