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Mexico's Legal Regime Over its Marine Spaces: A Proposal for the Delimitation of the Continental Shelf in the Deepest Part of the Gulf of Mexico

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ARTICLES

MEXICO'S LEGAL REGIME OVER ITS MARINE SPACES: A PROPOSAL FOR THE DELIMITATION OF THE CONTINENTAL SHELF IN THE DEEPEST PART OF THE GULF OF MEXICO

JORGE A. VARGAS*

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I. INTRODUCTION

The demarcation of territorial boundaries between states often represents the end of long and delicate negotiations, and involves an intricate balancing of legal, technical, and political considerations. Because of the serious and permanent consequences that derive from this act of national sovereignty, the establishment of national boundaries is one of the most important decisions a nation can make under international law.

Whereas the demarcation of land boundaries between the United States (U.S.) and Mexico occupies an old and technical chapter in diplomatic relations between the two nations, one in which the venerable International Boundary and Water Commission (IBWC)¹ played a decisive role, the delimitation of U.S.-

1. Originally established in 1890, the International Boundary Commission (IBC) was created to establish and demarcate the boundaries between both countries, in accordance with Article V of The Treaty of Guadalupe Hidalgo, Feb. 28, 1848, U.S.-Mex., art. V, T.S. 207, and Article I of The Gadsden Purchase, Dec. 30, 1853, U.S.-Mex., art. I, T.S. 108. In 1944, the Commission's original mandate was expanded to include international water questions and it was renamed the International

Mexican maritime boundaries remains incomplete.² Although both nations adopted a 200 nautical mile maritime zone offshore their respective coasts almost twenty years ago, to date no definite maritime boundary agreement exists in relation to these zones, nor with respect to the submarine continental shelf in the Gulf of Mexico or Pacific Ocean.

By executive agreement on November 24, 1976, and "pending final determination by treaty of the maritime boundaries between the two countries off both coasts," the U.S. and Mexico drew geodesic lines in the Pacific Ocean and Gulf of Mexico to be "provisionally recognized as such [maritime] boundaries."³ The resulting boundaries were then simply reproduced in a treaty signed by both countries in Mexico City on May 4, 1978.⁴ Later that year, the Mexican Senate ratified the treaty in accordance with constitutional procedure, making the maritime boundaries final and permanent from Mexico's perspective. The U.S. Senate Committee on Foreign Relations reported favorably on the treaty in August of 1980; however, the U.S. Senate has never given its advice or consent to ratification, instead leaving the treaty in a state of "legal limbo" for the past fifteen years.⁵

Historically, the U.S. has maintained clearly defined territorial limits with its neighbors,⁶ thus defusing potential boundary

Boundary and Water Commission (IBWC). See Treaty Relating to the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, Feb. 3, 1944, U.S.-Mex., 59 Stat. 1219.

2. It was not until 1970 that the U.S. and Mexico signed a treaty that extended the international maritime boundary out to twelve nautical miles in the Pacific and the Gulf of Mexico. See Treaty to Resolve the Pending Boundary Differences and Maintain the Rio Grande and the Colorado River as the International Boundary between the United States and Mexico, Nov. 23, 1970, U.S.-Mex., 23 U.S.T. 371.

3. See Exchange of Notes Effecting Agreement on the Provisional Maritime Boundary, Nov. 24, 1976, U.S.-Mex., 29 U.S.T. 197, T.I.A.S. 8805 [hereinafter Exchange of Notes].

4. See Treaty on Maritime Boundaries, May 4, 1978, U.S.-Mex., 17 I.L.M. 1073.

5. See 126 CONG. REC. 25,550 (1980).

6. Dr. Robert W. Smith, Chief of the Marine Boundary and Resource Division, Office of the Geographer, U.S. Department of State, has said apropos these recent maritime delimitations:

The paramount principle of international law for maritime boundary delimitation is that a boundary should be decided by agreement between the involved states. The United States holds firmly to this tenet as an integral part of its policy for boundary negotiation and has consistently stated that *maritime boundaries are to be established by agreement in accordance with equitable principles*. The methodology for delimitation

conflicts that tend to be highly emotional, prolonged, and politically draining. In this case, however, the U.S.'s departure from this policy is highly significant in light of technical confirmation that the fourth largest hydrocarbon and natural gas deposit in the world is located in the deepest part of the Gulf of Mexico.⁷ A sense of urgency follows from reliable predictions that the U.S. will have the technology to exploit these mineral riches by the year 2000.⁸

This article is divided into two parts. The first analyzes Mexico's Federal Ocean Act, as enacted in 1986. In describing Mexico's marine spaces, special attention is given to highlighting their distinctive Mexican legal features. The second addresses the issue of maritime boundaries between the U.S. and Mexico as contained in the Exchange of Notes of 1976. It also comments on the status of the unratified Treaty on Maritime Boundaries of 1978, and proposes that the U.S. delimit the continental shelf in the middle of the Gulf of Mexico, a submarine area whose boundaries were not included in the executive agreement of 1976. The establishment of these boundaries is the only unsettled maritime boundary question remaining between the U.S. and Mexico today. In conclusion, the article suggests that the time has come for the U.S. and Mexico to sign a formal treaty stipulating the precise boundaries of the 200 nautical mile exclusive economic zones claimed by both countries and the continental shelf in both the Gulf of Mexico and the Pacific Ocean.

II. MEXICO'S FEDERAL OCEANS ACT

The legal regime applied by Mexico to its surrounding marine spaces, whether subject to Mexico's full sovereignty or only to certain rights or jurisdictions, is contained in its "Federal Oceans Act" (FOA), enacted in 1986.⁹ The FOA represents the

may vary with the particular elements of a boundary situation.

Robert W. Smith, *The Maritime Boundaries of the United States*, 71 GEOGRAPHICAL REV. 397, 410 (1981) (emphasis added).

7. Richard T. Buffler, *Seismic Stratigraphy of the Deep Gulf of Mexico Basin and Adjacent Margins*, in *THE GEOLOGY OF NORTH AMERICA*, VOL. J: THE GULF OF MEXICO BASIN 353 (Amos Salvador, ed., 1991).

8. See E. Cribbs, Jr. and J.D. Voss, *Deepwater Extended Well Testing in the Gulf of Mexico*, 1993 OFFSHORE TECHNOLOGY CONFERENCE 25, at 25-32 (May); see also *What is the Industry's Deepwater Capability?*, 15 OCEAN INDUSTRY 11, at 65-68 (1980).

9. Ley Federal Del Mar de México [Federal Oceans Act], El Diario Oficial de

culmination of Mexico's intense efforts at both the national and international level to establish "a comprehensive legal regime allowing for the rational utilization of the abundant marine and submarine resources that exist along its littorals."¹⁰ According to Bernardo Sepúlveda, then Mexican Secretary of Foreign Relations, the initial efforts concluded on March 18, 1983 when Mexico ratified the 1982 United Nations Convention on the Law of the Sea (1982 Convention).¹¹ Over the last four decades, Mexico has expressed a growing interest in the rational utilization of both its renewable and non-renewable marine resources,¹² and has consequently been active in contributing to the codification and development of the law of the sea. The Mexican delegation's contributions to UNCLOS I, II, and III are well documented.¹³

Mexico was a global pioneer in the establishment of a 200 nautical mile exclusive economic zone (EEZ),¹⁴ and with the

la Federación [D.O.], Jan. 8, 1986 [hereinafter FOA] (some minor amendments were made in a subsequent presidential decree: *Fé de Erratas a la Ley Federal del Mar*, D.O., Jan. 9, 1986). The FOA became effective the day of its publication. For an English translation, as well as President Miguel de la Madrid's rationale for introducing the legislative bill to Mexico's Federal Congress, see 25 I.L.M. 889, 900, respectively.

10. FOA, *supra* note 9, at 3.

11. See United Nations Convention on the Law of the Sea with Index and Final Act of the Third United Nations Conference on the Law of the Sea, U.N. Sales No. E.83.V.5 (1983) [hereinafter 1982 Convention]. On December 10, 1982 Mexico was among the 117 States to sign the 1982 Convention. Pursuant to its constitutional procedures, the Mexican Senate approved the 1982 Convention on December 29, 1982. The decrees of approval and promulgation appeared in D.O., Feb. 18 and June 1, 1983, respectively. The instrument of ratification was deposited before the Secretary General of the United Nations on March 18, 1983.

12. The utilization of marine resources has occupied an increasingly important place in Mexico's National Development Plans, as reflected by the special attention given to the development of the fishing industry, ports, oil exploration and exploitation, aquaculture projects, education in marine sciences and technologies, and environmental protection, during the administrations of Presidents Echeverría, López Portillo, De la Madrid, and Salinas de Gortari.

13. There is a proliferation of legal literature on this topic. See generally ALEJANDRO SOBRADO, *RÉGIMEN JURÍDICO DEL ALTA MAR*, 359-413 (1985); Alfonso García Robles, *Desarrollo y Codificación de las Normas Básicas del Derecho del Mar hasta 1960*, in *MÉXICO Y EL RÉGIMEN DEL MAR* 15-36 (1974); Sergio González Galvez, *México en la Codificación y el Desarrollo Progresivo del Derecho Internacional a través de la ONU*, in *MÉXICO EN LAS NACIONES UNIDAS* (1986); Jorge Castañeda, *La Labor del Comité Preparatorio de la Tercera Conferencia de las Naciones Unidas sobre el Derecho del Mar*, in *MÉXICO Y EL RÉGIMEN DEL MAR* 136 (1974); Manuel Tello, *México y el Derecho del Mar*, in *MÉXICO EN LAS NACIONES UNIDAS* 155 (1986).

14. By presidential decree, Mexico established its 200 nautical mile exclusive economic zone (EEZ) by adding an eighth paragraph to Article 27 of its 1917 Constitution. D.O., Feb. 6, 1976. The EEZ entered into force on June 6, 1976. See also

enactment of the FOA, Mexico stands among the first nations to adjust its domestic legislation in conformity with the new international oceanic legal regime, as contained in the 1982 Convention.¹⁵ Mexican President De la Madrid's statement in support of this legislative initiative advanced a number of ideas underlying the relationship between the 1982 Convention and the FOA. He indicated, for example, that since the guidelines of the 1982 Convention tend to be rather general, "their practical application in each state will give them their real content. In practice, the guidelines will have to be followed on the basis of national legislation adopted by each country and will constitute the actual applied law of the sea."¹⁶ President De la Madrid also asserted that the provisions of the 1982 Convention "cannot be carried out automatically, but rather require legislation at the national level for their full application."¹⁷ De la Madrid recognized that a number of articles in the 1982 Convention "force the States to legislate internally to make them effective, to fulfill them, and above all, to use the rights derived therefrom effectively against third parties."¹⁸

Regarding the substantive aspects of the 1982 Convention, President De la Madrid reiterated Mexico's policy that the majority of the provisions, except for those dealing with the international seabed area, had already achieved such an international consensus that "they constituted evidence of the legal will of the international community."¹⁹ As a result, no alteration was acceptable with respect to the rights and obligations attributed to states during the process of negotiation.²⁰

A. General Overview of the Federal Oceans Act

The FOA was designed to accomplish two fundamental objectives. The first was to codify, update, and systematize the numerous pieces of domestic legislation then in force regulating the Mexican marine environment, its resources, and environ-

infra part II.C.4.

15. FOA, *supra* note 9, at 4.

16. See *Rationale for the Mexican Law of the Sea* [hereinafter *Rationale*], 25 I.L.M. 900, 901 (1986).

17. *Id.*

18. *Id.*

19. *Id.*

20. *Id.*

mental protection.²¹ This legislation primarily consisted of a number of federal statutes derived from pertinent articles of Mexico's 1917 Constitution.

Article 27 of the Mexican Constitution grants to the Mexican nation the direct ownership of any natural resources, such as minerals, deposits, or other substances located in the continental land mass, the continental shelf, and islands.²² Specific attention is given to oil, natural gas, and any other hydrocarbons.²³ Article 27 also provides that, *inter alia*, "the waters of the territorial seas"²⁴ and the "internal marine waters"²⁵ "are the property of the [Mexican] Nation."²⁶ Without fully adhering to the notion of *ius imperium*, but in contrast to the antiquated *ius dominium* used in Article 27 of Mexico's Constitution, the FOA now provides that in Mexico's marine spaces "the Nation shall exercise the powers, rights, jurisdictions and the authority [competencias]," established by the FOA "in accordance with the [Federal] Constitution and international law."²⁷ Article 42 of the Mexican Constitution enumerates the physical areas that

21. *Id.*

22. CONSTITUCIÓN POLÍTICA DE LOS ESTADOS UNIDOS MEXICANOS [hereinafter MEX. CONST.], art. 27 (translation by author).

23. Article 27 of the Mexican Constitution provides:

[I]t corresponds to the Nation the direct ownership of all the natural resources of the continental shelf, including the continental shelves of islands; of all minerals or substances in veins, layers, masses or beds that constitute deposits whose nature is different from the components of the land, such as minerals from which metals and metalloids are extracted that are utilized in industry; . . . the mineral and organic deposits of substances susceptible of being used as fertilizers; combustible mineral solids; petroleum and all solid, liquid or gaseous hydrocarbons, and the air space situated over the national territory, in the extension and terms established by international law.

MEX. CONST. art. 27.

24. *Id.* In Spanish this phrase reads: "*Son Propiedad de la Nación las aguas de los mares territoriales, en la extensión y términos que fije el derecho internacional.*" *Id.*

25. "*Aguas marinas interiores.*" *Id.* The nearly universal name for this marine space is "internal waters." See Geneva Convention on the Law of the Sea, art. 5 (1958); 1982 Convention, art. 8. Articles 42 and 48 of the Mexican Constitution, however, use the expression "internal maritime waters" (*aguas marítimas interiores*) to refer to this same space, illustrating the lack of consistency in legal marine terminology. See MEX. CONST. arts. 42, 48.

26. For a critical appraisal of the traditional use of the notion of "property" to claim ownership over these resources of the government of Mexico, see Bernardo Sepúlveda, *Derecho del Mar, Apuntes sobre el Sistema Legal Mexicano*, 12 FORO INTERNACIONAL 237, 240 (1972).

27. FOA, *supra* note 9, art. 4.

comprise Mexico's "national territory,"²⁸ and Article 48 provides that "islands, cays, reefs, the continental shelf, the territorial seas, the internal maritime waters and the air space over the national territory," . . . "will depend directly from the Federal government"²⁹

Numerous federal statutes based upon these Articles regulate fishing and aquaculture,³⁰ oil and natural gas,³¹ maritime transportation,³² ports,³³ tourism,³⁴ and marine environmental protection.³⁵ Because these statutes were enacted and amended at different times, very little uniformity developed among them. The FOA served to introduce much needed coordination into this area by establishing a single and comprehensive legal corpus. In his initiative, President De la Madrid referred to the FOA as legislation giving structure and order to the varied substantive legal aspects of marine affairs.³⁶

Mexico's second objective achieved with the FOA was compliance with the 1982 Convention.³⁷ To this end, the Mexican government proceeded to modernize and adjust its domestic legislation to achieve legal symmetry with this multilateral instrument.³⁸ Pursuant to Article 133 of the Mexican Constitution, treaties entered into by the President of the Republic and approved by the Senate become the "Supreme law throughout

28. According to Article 42 of Mexico's 1917 Constitution, Mexico's "national territory" is comprised of: 1) thirty-one States and the Federal District (Mexico City); 2) islands in "including reefs and cays in the adjacent seas," specifically the islands Guadalupe and Revillagigedo in the Pacific Ocean; 3) the continental shelf appurtenant both to the continental land mass and to islands, cays and reefs; 4) a twelve nautical mile territorial sea and the "internal maritime waters"; and 5) the superjacent air space. MEX. CONST. art. 42.

29. *Id.* art. 48.

30. The Legal Framework For Fisheries, 1992 [The Fishing Act], D.O., June 25, 1992; see also the Fishing Act Regulations, D.O., July 21, 1992.

31. See Ley Reglamentaria del Artículo 27 Constitucional Sobre Petroleos [Federal Act derived from art. 27 of the Constitution on Petroleum], D.O., Nov. 29, 1958, as amended, D.O., Dec. 30, 1977.

32. See Ley De Vias Generales De Comunicacion [Federal Act on General Communication], D.O., Feb. 19, 1940, as amended, D.O., Jan. 4, 1994.

33. See Ley Federal De Puertos [Federal Ports Act], D.O., July 19, 1993.

34. See Ley Federal De Turismo [Federal Tourism Act], D.O., Dec. 31, 1992.

35. See Ley General Del Equilibrio Ecologico y La Proteccion Al Ambiente [General Act on Ecological Balance and Environmental Protection], Editorial Porrúa (1994).

36. See Rationale, *supra* note 16, at 900.

37. *Id.* at 901.

38. *Id.*

the Union."³⁹ Therefore, the only logical legal consequence that could have derived from Mexico's adherence to the 1982 Convention was the enactment of the FOA.

President De la Madrid reasoned that "the only means" toward providing his country "with the essential legal authority to exercise its rights in the marine environment mainly against foreign interests," was the adoption of domestic legislation incorporating "the pertinent principles of the new international legal order into national positive law."⁴⁰ De la Madrid made it clear that the FOA was formulated with special attention to the norms and provisions of the 1982 Convention, which served as legal directives or guiding principles.⁴¹ A substantial number of the 1982 Convention's provisions were reproduced verbatim in the text of the FOA.⁴²

B. The FOA's Nine Innovative Legal Features

From an administrative perspective, the FOA is categorized as a regulatory statute (*ley reglamentaria*) detailing certain provisions contained in Article 27 of the Mexican Constitution.⁴³ This new federally-applied statute and its provisions are constitutionally ranked as "public order provisions."⁴⁴ The FOA consists of sixty-five articles divided into two parts.⁴⁵

The FOA introduced the following nine innovations applicable to the oceans into Mexico's legal regime:

1. The right of innocent passage was regulated in detail for the first time in Mexico's legislative history.⁴⁶ Prior to the

39. MEX. CONST. art. 133. This article may have been inspired by Article VI, ¶ 2, of the U.S. Constitution.

40. Rationale, *supra* note 16, at 903-04.

41. *Id.* at 902. The expression in Spanish is "Normas rectoras de la Convencion." *Id.*

42. *Id.*

43. As provided in Article 1 of the FOA, this new federal statute details the legal content of paragraphs 4, 5, 6 and 8 of Article 27 of the Mexican Constitution. See FOA, *supra* note 9, at 889, 890; cf. MEX. CONST. art. 27.

44. FOA, *supra* note 9, art. 2.

45. *Id.* Part One [Título Primero] contains general provisions [Disposiciones Generales]; Part Two [Título Segundo] applies to the Mexican Marine Zones [Zonas Marítimas Mexicanas].

46. *Id.* In part, Mexico's detailed regime for the right of innocent passage may be perceived as a consequence of the progress accomplished on this subject by UNCLOS III. See 1982 Convention, *supra* note 11, arts. 17-26.

enactment of this regulation, Article 189 of the Federal Act of the General Means of Communication (*Ley de Vías Generales de Comunicación*), originally enacted in 1932, incorrectly recognized the freedom of navigation in Mexico's territorial waters in favor of foreign vessels.⁴⁷ The FOA corrected this problem.

2. The FOA established norms by which Mexico may exercise its jurisdiction over artificial islands, installations, and marine structures.⁴⁸

3. In addition to regulating the traditional use of renewable and non-renewable marine resources, the FOA created norms for regulating certain non-traditional uses, such as the use of minerals contained in the waters, generation of hydroelectric power and thermal energy, production of eolic power and solar energy, coastal development, aquaculture, and marine parks.⁴⁹

4. The FOA handles internal waters under a separate and distinct legal regime. Prior to 1986, internal waters were not treated as distinct from the territorial seas, confusing the question of the right of innocent passage in the internal waters area.⁵⁰

5. The FOA created a contiguous zone — an oceanic area under Mexico's national jurisdiction — twelve nautical miles in width. In 1969, pursuant to the General Act of National Assets (*Ley General de Bienes Nacionales*), Mexico established a three nautical mile contiguous zone adjacent to its then nine nautical mile territorial sea. However, when Mexico extended its territorial sea to twelve nautical miles later that year by amending Article 18, paragraph II of the Act, the contiguous zone essentially disappeared.⁵¹ In accordance with Article 33, paragraph 2

47. Article 189 of this federal statute provided:

Navigation in the territorial seas of the Republic is free for the vessels of all countries, in the terms of treaties and international law. Foreign vessels that navigate in Mexican [territorial] waters are subject, for this reason only, to complying with the laws of the Republic and its respective regulations.

Ley De Vias Generales De Comunicacion, *supra* note 32, at 99 (translation by author).

48. FOA, *supra* note 9, arts. 14-17. See 1982 Convention, *supra* note 11, arts. 56(1)(b)(i), 60.

49. FOA, *supra* note 9, art. 6, ¶ IV. See 1982 Convention, *supra* note 11, art. 56(1)(a).

50. FOA, *supra* note 9, arts. 34-41.

51. *Ley General de Bienes Nacionales* [General Act of National Assets], art. 18,

of the 1982 Convention, Mexico's contiguous zone now encompasses a width of twenty-four nautical miles extending from the baseline from which the measurement of the breadth of the territorial sea is made.⁵²

6. The FOA created a special legal regime for Mexico's 200 nautical mile EEZ.⁵³ The legislative bill notes that Mexico controls rich deposits of polymetallic nodules within its EEZ, especially in the Gulf of California and around the Revillagigedo and Clarión islands.⁵⁴

7. Clearly concerned with the protection and preservation of the marine environment, the new legislation devoted an entire article to this vital point.⁵⁵ At the domestic level, the General Act of Ecological Balance and Environmental Protection,⁵⁶ the General Health Act,⁵⁷ and the Federal Water Act⁵⁸ regulate the environmental protection of Mexico's marine spaces. Internationally, Mexico has joined seven multilateral conventions against marine pollution.⁵⁹ Additionally, a 1981 bilateral agreement with the U.S. to prevent pollution from hydrocarbons or other hazardous substances remains in force.⁶⁰

8. Defining the outer boundary of the continental shelf is

¶ II (amended by presidential decree of December 12, 1969), D.O., Dec. 26, 1969.

52. FOA, *supra* note 9, arts. 42-45; 1982 Convention, *supra* note 11, art. 33(2).

53. FOA, *supra* note 9, arts. 46-56. This is the lengthiest section of the FOA, closely paralleling Articles 55-62 of the 1982 Convention, *supra* note 11.

54. Rationale, *supra* note 16, at 906.

55. FOA, *supra* note 9, art. 21.

56. See Ley General Del Equilibrio Ecológico y La Protección Al Ambiente, *supra* note 35. Articles 79-87 of this statute regulate the protection of wild flora and fauna and aquatic species. Articles 117-33 regulate the control of aquatic ecosystems.

57. See Ley General De Salud, [General Health Act], D.O., Feb. 7, 1984.

58. See Ley Federal De Aguas [Federal Waters Act], D.O., Dec. 1, 1992.

59. These conventions are: 1) The London Convention for the Prevention of Marine Pollution by Hydrocarbons, D.O., July 20, Oct. 15, 1956; 2) Amendments to the London Convention, D.O., Mar. 9, 1977; 3) Brussels Convention on High Seas Intervention in Case of Accidents Caused by Pollution by Hydrocarbons, D.O., May 26, 1976; 4) Prevention of Marine Pollution by Dumping of Waste and Other Matters, D.O., July 16, 1975; 5) 1973 Protocol to Intervention in the High Seas, D.O., Mar. 30, 1980 and Aug. 1, 1980; 6) 1978 MARPOL Protocol, D.O., July 8, 1992; and 7) Cartagena Convention for the Protection of the Marine Environment in the Caribbean Region, D.O., Apr. 25, 1988. See also México: Relación De Tratados En Vigor, 1993, SRE, Tlatelolco, México 1993, at XXIV-XXV.

60. Agreement of Cooperation between the United States and Mexico regarding Pollution of the Marine Environment by Discharges of Hydrocarbons and Other Hazardous Substances, with Annexes, July 24, 1980, U.S.-Mex., 32 U.S.T. 5899, D.O., May 18, Aug. 5, 1981 (entered into force Mar. 30, 1981).

one of the most difficult technical problems associated with the law of the sea. Mexico's domestic legislation prior to 1986 did not address this question. In this respect, the FOA provides:

ARTICLE 62. The Mexican continental shelf and the insular shelves comprise the seabed and subsoil of the submarine areas that extend beyond the territorial sea and throughout the natural prolongation of its national territory to the outer edge of the continental margin, or to a distance of 200 nautical miles measured from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance, in accordance with international law. This definition includes the shelf of islands, cays and reefs that form a part of the [Mexican] national territory.⁶¹

However, it was expressly provided that "islands have an insular continental shelf but rocks which cannot sustain human habitation or economic life of their own do not."⁶²

9. Finally, subject to Mexico's sovereign rights and jurisdiction, the new 1986 statute regulates the conduct of marine scientific research activities in the different oceanic areas. In his legislative bill, President De la Madrid emphasized that this prior lack of regulation represented a *lacunae* in Mexico's legislation, and recognized that "there has been a gap in our legislation on this matter [marine scientific research] which is why what was agreed upon in the Conference [1982 Convention] had only been applied administratively by our government."⁶³ Consequently, in defense of Mexico's natural resources, his proposed legislative bill introduced a new legal regime addressing these issues.⁶⁴

In this regard, Article 22 of the FOA enumerates the following seven principles governing the conduct of marine scientific research activities in the Mexican marine spaces: 1) the activities should be conducted exclusively for peaceful purposes,⁶⁵ 2)

61. FOA, *supra* note 9, art. 62.

62. *Id.* art. 63; 1982 Convention, *supra* note 11, art. 121(3).

63. Rationale, *supra* note 16, at 905.

64. *Id.* at 905-906.

65. These principles maintain some symmetry, *mutatis mutandis*, with some of those contained in the Declaration of Principles that Regulate the Seabed and Ocean Floor Beyond the Limits of National Jurisdiction, Dec. 17, 1970, U.N.G.A. 2749 (XXV).

they should be undertaken with adequate scientific methods and means, compatible with the FOA and with any other applicable statutes and with international law; 3) the activities should not interfere with either legitimate uses of the sea compatible with this Act or with international law; 4) all the Mexican laws and regulations relating to the protection and preservation of the marine environment should be respected; 5) the activities shall not constitute a legal foundation for any revindication over any part of the marine environment or its resources; 6) when the activities, pursuant to the FOA, are permitted to be undertaken by foreigners, the highest degree of [Mexican] national participation shall be assured; and, 7) in the case of the preceding principle, the [Mexican] Nation shall take measures to assure that the results of the marine scientific research activities shall be provided and, when requested, that the necessary assistance be provided for its interpretation and evaluation.⁶⁶

Recently, the Mexican Government released an official publication containing a complete set of guidelines that foreign scientists and institutions must observe when applying for a permit to conduct marine scientific research activities in any of Mexico's marine spaces.⁶⁷

C. Mexico's Marine Spaces

The FOA's Article 3 establishes the following five specific "Mexican marine zones": 1) the territorial sea; 2) the internal marine waters; 3) a contiguous zone; 4) the EEZ; and 5) the continental shelf and insular shelves.⁶⁸ The legal nature, scope, mode of demarcation, and dimensions of each of these oceanic spaces was transposed almost verbatim from the corresponding articles of the 1982 Convention. The following commentary emphasizes only some of the distinct features added by Mexico in the FOA in relation to these spaces.

66. FOA, *supra* note 9, art. 22 (translation by author).

67. Normatividad para la Investigacion Cientifica por Extranjeros en Zonas Marinas de Jurisdiccion Nacional [Legal Regime for the Conduct of Scientific Research by Foreigners in Marine Zones under [Mexico's] National Jurisdiction], Secretaria de Relaciones Exteriores-Secretaria de Marina, 1993 [hereinafter Normatividad].

68. FOA, *supra* note 9, art. 3. The final paragraph of this article adds: "(f) Any other [Marine zone] permitted by international law.

1. Territorial Sea

The FOA establishes the width of Mexico's territorial sea as twelve nautical miles (22,224 meters).⁶⁹ In accordance with Mexico's Constitution,⁷⁰ Article 28 of the FOA declares that any slave entering this marine space aboard a foreign vessel is free and protected under Mexican laws.

Articles 30 and 31 merit special attention. Taken directly from the 1982 Convention,⁷¹ Article 30 states that Mexico's federal executive shall demand accountability from the flag state for any loss or damage caused by a warship, or by any other public vessel operated for non-commercial purposes, which results from non-compliance with pertinent Mexican laws or regulations on innocent passage, or with the provisions of this Act, its regulations, and other applicable norms of international law. Article 31 adds, with exceptions created by the FOA, that no provision in the Act is to affect the immunities of foreign warships and other government ships operated for non-commercial purposes.⁷² Thus, any vessel in the Mexican territorial sea must comply with the pertinent national statutory provisions and their regulations as they apply to fishing, protection of the marine environment, maritime traffic, and other marine activities.⁷³ Aircraft must also abide by the applicable provisions of Mexican law.⁷⁴

Mexico stood among the first countries in the Western Hemisphere to adopt a twelve nautical mile territorial sea in 1969.⁷⁵ From the original marginal belt of three nautical miles established in 1902,⁷⁶ Mexico enlarged its territorial sea to nine

69. FOA, *supra* note 9, art. 25. See also 1982 Convention, *supra* note 11, art. 3.

70. Article 2 of Mexico's 1917 Constitution reads: "Slavery is prohibited in the United States of Mexico. Slaves who enter the national territory from abroad shall, by this fact alone, obtain their freedom and enjoy the protection of the [Mexican] laws." MEX. CONST. art. 2.

71. See 1982 Convention, *supra* note 11, arts. 31-32.

72. FOA, *supra* note 9, art. 31 (translation by author).

73. *Id.* art. 5.

74. *Id.* art. 33. In this regard, Mexico's Ley de Vías Generales de Comunicación [Federal Act of General Means of Communication], D.O., June 15, 1992, *inter alia*, regulates the inspection, monitoring, and control of foreign aircraft flights over the Mexican territorial sea.

75. See ALFONSO GARCÍA ROBLES, LA ANCHURA DEL MAR TERRITORIAL 1 (1966).

76. Ley de Bienes Inmuebles de la Nación [Act of Immovable Assets of the

nautical miles in 1935.⁷⁷ By a Presidential decree amending its "General Act of Immovable Assets," Mexico further widened its territorial sea to twelve nautical miles in 1969.⁷⁸ The new twelve nautical mile breadth did not apply to the U.S. or Japan until 1973.⁷⁹

The Geneva Conferences on the Law of the Sea in 1958 and 1960 failed to reach agreement on the maximum width of the territorial sea, but Mexico hoped that a new standard of international law, favoring a twelve nautical mile territorial sea, would emerge as more coastal states adopted this limit. In respect for international law, Mexico proceeded cautiously in its attempts to obtain a twelve nautical mile limit for its marginal belt. This ingenious diplomatic approach, developed by Dr. Alfonso García Robles, proved highly successful.⁸⁰ Rather than unilaterally extending its territorial sea, Mexico first engaged in negotiations with the U.S.⁸¹ and Japan,⁸² two of the four coun-

Nation], art. 4, ¶ I, D.O., Dec. 18, 1902. The Act provides that "[a]ssets of the public dominium or common usage, controlled by the Federation, are the following: I. The territorial sea up to a distance of three maritime [sic] miles, measured from the line of the lowest tide in the continent's coastline or in the islands that form a part of the national territory." (translation by author). See also ALBERTO SZÉKELY, DERECHO INTERNACIONAL DEL MAR 45, 46, 51 (1979) [hereinafter SZÉKELY, DERECHO INTERNACIONAL].

77. See Decreto que Reforma la Ley de Bienes Inmuebles de la Nación [Decree Amending the Act on Immovable Assets of the Nation], D.O., Aug. 31, 1935. The only article of this decree amended art. 18, ¶ I, providing: "The territorial sea, up to a distance of nine nautical miles (16,668 km.), measured from the line of the lowest tide in the continent's coastline or in the islands that form a part of the national territory." (translation by author).

78. Decreto que Reforma el Primero y Segundo Párrafos de la Fracción II del Artículo 18 de la Ley General de Bienes Nacionales [Decree Amending the First and Second Paragraphs of the Second Section of Article 18 of the General Act of National Assets], D.O., Dec. 26, 1969. The text is identical except for the new twelve nautical mile breadth of the territorial sea. *Id.* at 62-63.

79. The 1969 decree that enlarged the width of the Mexican territorial sea from nine to twelve nautical miles contained a provision stipulating that the new width would not apply to U.S. or Japanese fishing vessels as the result of bilateral fishing agreements signed by Mexico with each of these two countries on October 27, 1967 and March 7, 1968, respectively. Based on these agreements, fishing activities by nationals of these two nations were phased out over five year periods ending on January 1, 1973 for the U.S., and on December 31, 1972 for Japan.

80. For an analysis on the content and legal consequences that led to the signing of fishing agreements with the U.S. and Japan, see Fernando Castro y Castro, *Convenios Bilaterales de Pesca: Práctica y Legislación Mexicana*, in MÉXICO Y EL RÉGIMEN DEL MAR 106 (1974).

81. Agreement between the United States of America and Mexico on Traditional Fishing in the Exclusive Fishing Zones Contiguous to the Territorial Seas of both

tries whose nationals traditionally fished off its shores. To do otherwise may have caused a direct confrontation with the U.S. or other major maritime powers. No agreements were reached, however, with the remaining two countries, Cuba⁸³ and Guatemala.⁸⁴

The crux of these negotiations consisted of entering into bilateral fishing agreements with the U.S. and Japan, recognizing their "traditional fishing rights" in the three nautical mile belt contiguous to the Mexican territorial sea for a five-year period beginning January 1, 1968.⁸⁵ These traditional fishing rights were then gradually phased out over the same five-year period. After progress in the negotiations suggested that the desired objective was within reach, Mexico created a three nautical mile EEZ by presidential decree on January 20, 1967.⁸⁶ This zone, measuring between nine and twelve nautical miles from the baseline, was used to determine the width of Mexico's territorial sea. [See Map A] A provision in the decree stipulates:

The Federal Executive shall establish the conditions and terms under which nationals of countries that have traditionally exploited living resources of the sea, within the zone of three nautical miles outside the territorial sea, may continue their activities during a period of time that will not exceed five years, counted from January 1, 1968. During 1967, the nationals of said countries may continue their activities without having to comply with any special condition.⁸⁷

Nations, Oct. 27, 1967, U.S.-Mex., 18 U.S.T. 2724.

82. Convenio entre los Estados Unidos Mexicanos y el Japón sobre Pesca por Embarcaciones Japonesas en las Aguas Contiguas al Mar Territorial Mexicano [Agreement between Mexico and Japan on Fishing by Japanese vessels in the Waters Contiguous to the Mexican Territorial Sea], Mar. 7, 1968, Mex.-Japan, in MEXICO Y EL RÉGIMEN DEL MAR, *supra* note 13, at 355-57.

83. Mexico and Cuba held two negotiating sessions on this matter on May 16 and 25, 1967. Although considerable progress was made initially, at the end no agreement was reached. See Castro y Castro, *supra* note 80, at 130-34.

84. *Id.* During the administration of President Adolfo López Mateos (1958-1964), a number of conflicts involving Guatemalan fishing vessels in Mexican waters led to chilled relations between the two nations. These incidents, as well as the lack of a fishing boundary pact between the two countries, apparently impeded the formalization of a bilateral agreement between Mexico and Guatemala. *Id.* at 134.

85. For information on the background, formulation, and implementation of the Mexican diplomatic strategy toward the U.S., see *id.* at 121-26.

86. Ley sobre la Zona Exclusiva de Pesca de la Nación [Act on the Exclusive Fishing Zone of the Nation], D.O., Dec. 20, 1967 (entered into force Jan. 4, 1968).

87. *Id.* (translation by author).

2. Internal Waters

With respect to "internal marine waters" (*aguas marinas interiores*), the FOA expressly includes among them the northern part of the Gulf of California, inland bays, ports, waters inland of reefs, and the mouths or deltas of rivers, lagoons, and estuaries connected permanently or intermittently with the sea.⁸⁸ For the purpose of delimiting this marine space, the low-water tide along the coast (*línea de bajamar*) is defined as "the line where the ebb and flow of marine waters along the continental and insular coasts of the [N]ation is the greatest at a given moment."⁸⁹ When complete, the FOA regulations will contain more detailed guidelines pertaining to the delimitation of internal waters or any other "Mexican marine zone."⁹⁰

3. Contiguous Zone

As permitted by the 1982 Convention,⁹¹ Mexico now has a twelve nautical mile contiguous zone, located immediately adjacent to its territorial sea.⁹² The purpose of this space is "to prevent infringement of the applicable norms of this Act, its Regulations and the customs, fiscal, immigration or sanitary laws and regulations within its territory, in the Mexican Marine Internal Waters or in its Territorial Sea;"⁹³ and to "punish these

88. FOA, *supra* note 9, art. 36. Paragraph 5 should be read in conjunction with Article 27 of the Mexican Constitution, which essentially provides that these types of waters are subject to the exclusive jurisdiction of the federal government. See *supra* notes 22-29 and accompanying text. See also 1982 Convention, *supra* note 11, arts. 5-12.

89. FOA, *supra* note 9, arts. 37-38. In Spanish, art. 38 reads:

Para los efectos del límite interior de las Aguas Marinas Interiores, la línea de bajamar es la línea de mayor flujo y reflujo donde llegan las aguas marinas en un momento dado a lo largo de las costas continentales o insulares de la Nación.

90. Notwithstanding that the FOA was enacted almost a decade ago (Jan. 8, 1986), its implementing regulations have not been promulgated as of this date.

91. See 1982 Convention, *supra* note 11, art. 33, ¶ 2.

92. FOA, *supra* note 9, arts. 43-45. The outer boundary of the contiguous zone is located at twenty-four nautical miles (44,448 meters) from the corresponding baselines. *Id.*

93. *Id.* art. 42. See also 1982 Convention, *supra* note 11, art. 33(1)(a), (b).

infringements"⁹⁴

4. Exclusive Economic Zone

By amending Article 27 of its Constitution in February of 1976,⁹⁵ Mexico was among the first nations to establish a 200 nautical mile EEZ.⁹⁶ In an official 1974 address to the plenary of UNCLOS III's second session in Caracas, Venezuela, Mexican President Luis Echeverría Alvarez said:

The Patrimonial Sea⁹⁷ is a new, special, legal figure that reflects the complexity of the new realities in the marine realm. This legal figure cannot be assimilated to the traditional categories of the law of the sea: it is neither a territorial sea, nor a high seas.⁹⁸

With the assistance of Colombia and Venezuela, the Mexican delegation formally introduced before UNCLOS III the first proposal delineating the legal contours of what the international community would eventually recognize as the EEZ.⁹⁹ The 1976

94. FOA, *supra* note 9, art. 42.

95. Mexico's Ley Reglamentaria del Párrafo Octavo del Artículo 27 Constitucional, Relativo a la Zona Económica Exclusiva [Regulatory Act of the Eighth Paragraph of Article 27 of the Constitution, Pertaining to the Exclusive Economic Zone], D.O., Feb. 13, 1976, was repealed by the FOA in 1986.

96. In explaining the addition of paragraph 8 to Article 27 of the Constitution, President Luis Echeverría Alvarez indicated:

[T]he proposed addition . . . affirms the sovereign rights of the Nation over the natural resources existing in an area of over two million square kilometers, an area that is slightly larger than Mexico's actual territory. The exploitation of these resources will be subject to general regulations which guarantee that they will be utilized for the benefit of the Mexican people.

D.O., Feb. 6, 1976 (translation by author). See also JORGE A. VARGAS, LA ZONA ECONOMICA EXCLUSIVA DE MÉXICO 43-63 (1980).

97. The "Patrimonial Sea," a Latin American concept attributed to the Chilean diplomat Edmundo Vargas Carreño, is the direct predecessor to the exclusive economic zone. For additional information on this concept, see EDMUNDO VARGAS C. YARREÑO, AMERICA LATINA Y EL DERECHO DEL MAR (1973); RICARDO MÉNDEZ SILVA, EL MAR PATRIMONIAL EN AMERICA LATINA (1974); Jorge Castañeda, *The Concept of Patrimonial Sea in International Law*, 12 INDIAN J. INT'L L. 535-42 (Oct. 1972); Andrés Aguilar, *The Patrimonial Sea or Economic Zone Concept*, 11 SAN DIEGO L. REV. 579-602 (1974).

98. Mexican President Luis Echeverría Alvarez, Address Before UNCLOS III at Caracas, Venezuela (July 26, 1974), reprinted in VARGAS, *supra* note 96, at 34.

99. See *Proposal by Colombia, Mexico and Venezuela on a Patrimonial Sea of 200 Nautical Miles*, UNCLOS III, U.N. Doc. A/AC, 138/SC.II/ L.21 (1973).

addition of an eighth paragraph to Article 27 of the Mexican Constitution reads as follows:

The Nation exercises in an exclusive economic zone situated outside the territorial sea and adjacent to it, the sovereign rights and the jurisdictions specified by the laws of Congress. The exclusive economic zone shall extend 200 nautical miles, measured from the baseline from which the territorial sea is measured. In those cases in which this extension superimposes on the exclusive economic zones of other states, the delimitation of the respective zones shall be made as this becomes necessary, by agreement with those states.¹⁰⁰

A presidential decree in June, 1976 established the outer boundary of Mexico's EEZ in the Caribbean, the Gulf of Mexico, and Pacific Ocean,¹⁰¹ and included a corresponding official marine chart.¹⁰² Mexico's establishment of a 200 nautical mile EEZ along its vast oceanic littorals,¹⁰³ demarcated by islands as basepoints, produced immediate consequences on both domestic and international levels, particularly with regard to the Gulf of California.

D. The Use of Islands by Mexico to Delimit its 200 Nautical Mile EEZ

The presence of two island groups offshore the Yucatán peninsula (Arrecife Alacrán and Cayo Arcas), provided Mexico with considerable territorial benefits when it used them as basepoints to trace the outer boundary of its 200 nautical mile EEZ in the Gulf of Mexico.

Arrecife Alacrán and Cayo Arcas were occupied at one time by a small group of U.S. nationals engaged in the commercial

100. MEX. CONST. art. 27.

101. Decreto que fija el Límite Exterior de la Zona Económica Exclusiva de México [Decree Establishing the Outer Boundary of Mexico's EEZ], D.O., June 7, 1976 (entered into force July 31, 1976).

102. Coinciding with the publication of the decree establishing the outer boundary of Mexico's EEZ, and in accordance with international law, the Mexican Secretariat of the Marine published an official chart depicting these boundaries. See *infra* note 117 and accompanying text.

103. According to a recent official publication of the Mexican Government, Mexico's total coastline is 11,592.77 kilometers in length (some 7205 miles). See *Normatividad*, *supra* note 67, at 11.

exploitation of the abundant *guano* deposits found there. The presence of these individuals enabled the U.S. government to stake claim to these "islands, cays and rocks" as U.S. territory. Diplomatic negotiations eventually became necessary to settle this disputed ownership.¹⁰⁴ In his "State of the Nation Address" on September 1, 1902, Mexican President Porfirio Díaz informed the nation of an agreement reached with the U.S. regarding Mexico's territorial sovereignty over these "islands . . . and rocks" offshore the Yucatán peninsula.¹⁰⁵

Had those islands not been part of the marine geography of the Gulf or had U.S. negotiators not been convinced that "the Mexican *island* in question, Arrecife Alacrán, was capable of meeting the island test," the resulting EEZ boundaries may have been vastly different. Undoubtedly, Mexico's EEZ outer boundary would have been drawn south of its present location, since the width of the EEZ in that case would have been measured from the coastline of Yucatán rather than from Arrecife, located some seventy-five miles north of the port of Progreso on Mexico's continental land mass. Therefore, from an oceanic law perspective, it is essential that these Mexican islands be placed under the strictest legal and technical scrutiny to be certain they meet the criteria of Article 132 of the ISNT.¹⁰⁶

In a 1946 technical report written by Manuel Muñoz Lumbier and published by the Mexican Secretariat of Public Education (SEP),¹⁰⁷ Arrecife Alacrán and Islote Pérez are described in part as follows:

ALACRANES. Name given to dangerous reefs (*escollos*) located in the NE extreme of the Yucatán bank . . . 73 miles from Fuerte Sisal, latitude 22°23'36" and 89°41'45" longitude West of Greenwich The general form of said reefs (*arrecifes*) is that of a crescent moon with a convexity to the NE The NE side is formed by a compact mass of coral . . . dried out in several places, and against which the sea clashes with enor-

104. See Informe Presidencial del 10 de Septiembre de 1902, BOLETÍN DE LA SOCIEDAD DE GEOGRAFÍA Y ESTADÍSTICA, No. X, México, D.F. (June 1903), at 175-99.

105. *Id.* See also *Islas*, in VII ENCICLOPÉDIA DE MÉXICO 356 (José Rogelio Alvarez ed., 1977).

106. Informal Single Negotiating Text [ISNT], U.N. Doc. A/CONF.62/WP.8/Part II (1975).

107. Manuel Muñoz Lumbier, *Las Islas Mexicanas*, in BIBLIOTECA ENCICLOPÉDICA POPULAR, SRE (1946).

mous violence On the SE end . . . there are small, sandy cays of some five feet in height, covered by grass and bushes¹⁰⁸

PEREZ. Small islet (*islote*) located one mile off the south end of Arrecife de Alacranes, latitude 22°23'36" N and longitude 89°41'45" West of Greenwich. Contiguous to this islet are the cays known as Pájaros and Chico, and between them and the island there is a small port formed by reefs, and good for small boats, with a depth of four fathoms, but which entrance should be cleared by sight Three miles NW of Pérez there is another cay that is distinguishable by a small solitary hut, and at the same distance in the southern direction in the NW of Arrecife de Alacranes there is another islet of some ten feet in height The bank in this area is so steep that there is no safe anchoring for large vessels . . . and the only convenient disembarking point is located in the interior of Isla Pérez, which is located some 66 miles directly north from Puerto de Progreso These low areas (*bajos*) are very rich in fish and shellfish. There is a lighthouse of the fourth order, with a reach of 15 miles and with two distinct bright flashes. Caution should be exercised when navigating along the northern coast since the beam of light offers little protection from the danger of reefs.¹⁰⁹

The Mexican government published five official catalogues¹¹⁰ between 1977 and 1987 listing "the islands, cays and reefs" that form part of the Mexican territory in conformity with Articles 42 and 48 of its Constitution. None of the five islands

108. *Id.* at 108-09.

109. *Id.* at 109-10.

110. These catalogues are: 1) Régimen Jurídico de Las Islas Mexicanas y Su Catalogo [Legal Regime of the Mexican Islands and its Catalogue], in ISLAS DEL GOLFO DE MÉXICO Y MAR CARIBE 51, 53-54, Secretaría de Marina (Mex. 1977); 2) Régimen Jurídico de Las Islas Mexicanas y Su Catalogo [Legal Regime of the Mexican Islands and its Catalogue], Secretaría de Marina, 47-49 (Mex. 1979); 3) Régimen Jurídico e Inventario de Las Islas, Cayos y Arrecifes del Territorio Nacional [Legal Regime and Inventory of the Islands, Cays and Reefs of the National Territory], in ARRECIFES Y CAYOS DEL TERRITORIO NACIONAL, GOLFO DE MÉXICO 81, 92, Secretaría de Gobernación, (Mex. 1981); 4) Catalogo Provisional de Islas y Arrecifes [Provisional Catalogue of Islands and Reefs], at 4, 5, 10, Secretaría de Programación y Presupuesto (Mex. 1981) (this catalogue assigns the five islands the numbers 156, 185, 187, 420, and 444, from a total of 3067 islands, cays, rocks and reefs); 5) Islas Mexicanas: Régimen Jurídico y Catalogo [Islands of Mexico: Legal Regime and Catalogue], in ISLAS EN EL MAR CARIBE FRENTE A LAS COSTAS DE LOS ESTADOS DE YUCATÁN Y QUINTANA ROO 71, Secretaría de Gobernación y Secretaría de Marina (Mex. 1987).

that compose Arrecife Alacrán (Isla Chica, Isla Desertora, Isla Desterrada, Isla Pájaros and Isla Pérez) are defined consistently from either a scientific or geographic perspective. While earlier catalogues refer to these islands as "cays,"¹¹¹ the most recent lists them as "islands." For example, in the 1977 and 1979 Secretariat of the Marine catalogues the following descriptions appear:

ISLA CHICA. A *small cay* of 1.50 meters in height located three quarters of a mile from the SE end and within Arrecife Alacrán, at a distance of one quarter of a mile from Isla Pájaro.¹¹²

ISLA DESERTORA. A *small cay* 3.65 meters in height located three miles NW of Isla Pérez, in Arrecife de Alacrán.¹¹³

ISLA DESTERRADA. A *small cay* three meters in height located in the interior and at one and a half miles distance from the NW coast of Arrecife de Alacrán.¹¹⁴

ISLA PAJAROS. A *small cay* 1.50 meters in height located three quarters of a mile off the SE end and within the Arrecife Alacrán.¹¹⁵

ISLA PEREZ. *Narrow cay* of half a mile in length and 4.25 meters in height located near the southern end of Arrecife Alacrán.¹¹⁶

The Secretariat of the Marine, in its most recent catalogue, simply lists the above as islands within its section "Islands in the Caribbean Sea in front of the Coasts of the States of Yucatán and Quintana Roo," and provides geographic coordinates.¹¹⁷

111. For example, the Mexican Secretariat of the Marine's catalogues of 1977 and 1979 refer to these islands as "cays." For more precise definitions, see *supra* notes 104-09 and accompanying text.

112. Régimen Jurídico 1979, *supra* note 110, at 48.

113. *Id.*

114. *Id.*

115. *Id.* at 49.

116. *Id.* The same descriptions appear in the 1977 Catalogue. The 1981 Governmental Inventory does not detail the names of the islands that form Arrecife Alacrán. It simply list the "Arrecife" as belonging to Mexico in the Gulf of Mexico; see Régimen Jurídico e Inventario 1981, *supra* note 110, at 80-81.

117. See JORGE A. VARGAS, TERMINOLOGIA SOBRE EL DERECHO DEL MAR 153, 156 (1979).

Mexico's study of the "Insular Territory" should be complete in the years to come.¹¹⁸ Over the past two decades, the Mexican government has made vigorous, sustained efforts to study its numerous islands, cays, and reefs and the abundant resources surrounding them, with the purpose of furthering Mexico's scientific, technological, and socioeconomic development. These studies are presently incomplete, however, explaining Mexico's ongoing changes in reference to the labeling (as with the islands of Arrecife Alacrán) of geographical positions, flora and fauna, and natural resources.

The use of the Arrecife Alacrán islands for the tracing of the outer boundary of Mexico's EEZ was clearly independent of whether they were classified as "islands" or "cays." The legal issue was instead determining whether those islands or cays, regardless of their nomenclature, were in conformity with the definition of, or legal distinctions between "island" and "rock," as stated in Article 132 of the ISNT.¹¹⁹

U.S. and Mexican negotiators appointed to establish the 200-mile maritime boundary between both countries "immediately agreed that they would negotiate on the basis of the provisions of the Informal Single Negotiating Text."¹²⁰ The negotiators clearly chose this document because at the time bilateral negotiations were initiated in April, 1976, the ISNT was the most advanced document produced by the Third United Nations Conference on the Law of the Sea. It therefore reflected the international community's consensus reached on most substantive questions of the law of the sea. Therefore, the legal distinction established by Article 132 of the ISNT became of utmost importance for the U.S. and Mexico.

During the negotiations, both parties also took into account Article 61 of the ISNT, which provided that "[t]he delimitation of

118. *Id.*

119. According to the ISNT, *supra* note 106, at 47, "an island is a naturally formed area of land, surrounded by water, which is above high water at high tide." Under international law, islands are entitled to a territorial sea, a contiguous zone, an EEZ, and a continental shelf. However, the ISNT provided that "rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf." *Id.* art. 132, ¶ 3.

120. See Alberto Székely, *A Commentary with the Mexican View on the Problem of Maritime Boundaries in U.S.-Mexican Relations*, 22 NAT. RESOURCES J. 155, 156 (1982) [hereinafter Székely, *Commentary*].

the exclusive economic zone between adjacent or opposite States shall be conducted in accordance with *equitable principles* employing, when appropriate, *the median or equidistant line*, and taking account of *all relevant circumstances*."¹²¹ After negotiating and successfully reaching a similar maritime boundary agreement with Cuba several months earlier,¹²² Mexico was well prepared for its negotiations with the U.S. Because Mexico felt the numerous islands surrounding its littorals were of strategic importance for political reasons and that some were surrounded by vast natural resources, it had strong incentives to insist upon using the islands to demarcate its maritime boundaries. In a Presidential decree of June, 1976 establishing the outer boundary of Mexico's 200 nautical mile EEZ,¹²³ Mexico used several islands as base points for that delimitation. In the Gulf of Mexico, Isla Desterrada (in the Arrecife Alacrán) and Cayo Arenas were used as base points, while in the Pacific, Isla Clarión, and Isla Guadalupe were used.¹²⁴

The U.S. is fortunate to have numerous islands within its territory,¹²⁵ and should therefore favor a policy using islands as basepoints for maritime delimitation purposes.¹²⁶ This partly explains why, during negotiations with Mexico, the U.S. proposed the use of a nautical chart dividing the respective 200

121. ISNT, *supra* note 106, art. 61, at 25 (emphasis added). ISNT, Article 61 became Article 74 of the 1982 Convention, *supra* note 11. The current version of ISNT paragraph 1 reads: "the delimitation of the exclusive economic zone between States with opposite or adjacent coasts *shall be effected by agreement on the basis of international law*, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve *an equitable solution*." (emphasis added).

122. The maritime boundary agreement between Mexico and Cuba was concluded on July 26, 1976. See *Acuerdo Complementario del Acuerdo de Pesca* [Complementary Agreement to the Fishing Agreement] July 26, 1976, Mex.-Cuba, *Relación de Tratados en Vigor*, *supra* note 59, at 23. See also *infra* notes 154, 156 and accompanying text.

123. See Decreto que Fija el Límite Exterior de la ZEE de México [Decree Establishing the Outer Boundary of Mexico's EEZ], *supra* note 101 and accompanying text. Through its Secretariat of Programming and Budget, the Mexican government published a technical pamphlet describing in great detail the methodology used by the General Directorate of Studies of the National Territory [Dirección General de Estudios del Territorio Nacional] to establish the outer boundaries of Mexico's EEZ. See *Carta de la Zona Económica Exclusiva*, SPP, México (1977).

124. See SZÉKELY, *DERECHO INTERNACIONAL*, *supra* note 76, at 207-10.

125. See Smith, *supra* note 6, at 395-97, 406-10.

126. See Mark B. Feldman and David Colson, *The Maritime Boundaries of the United States*, 75 AM. J. INT'L L. 729, 743, 750 (1981) [hereinafter Feldman and Colson, *Maritime Boundaries*].

nautical mile oceanic zones, Mexico "merely confirm[ing]" the results.¹²⁷ The U.S.'s proposal clearly suggests 1) that the maritime boundary in the middle of the Gulf of Mexico was originally drawn by the U.S., following the guidelines established by Article 61 of the ISNT; 2) that the U.S. based this boundary on the use of certain islands as basepoints for maritime delimitation purposes, in conformity with the official policy advanced by each nation; 3) that certain islands in Arrecife Alacrán were legally deemed "islands" in accordance with Article 132 of the ISNT, which compelled the U.S. to acquiesce to Mexico's legal characterization that these "certain islands" were indeed "islands" and not "rocks"; 4) that Mexico reached an agreement with the U.S. on not only the legal and technical methodology employed for the establishment of the maritime boundary, but also the outcome of this legal-technical exercise; and, 5) that both countries agreed that the maritime boundary thus established would be considered a "general maritime boundary," except for the delimitation of the continental shelf between both countries, which presently remains pending.

Once both parties agreed to this maritime boundary, they then proceeded to "simplify" the resulting line in order to straighten it as much as practicable.¹²⁸ The IBWC had already applied this methodology to the 1970 Boundary Treaty, and in other instances as well, with mutually advantageous results.¹²⁹ On November 24, 1976, the U.S. and Mexico's carefully crafted agreement was put into immediate effect through an exchange of notes.¹³⁰

Why did U.S. negotiators agree with Mexico that the use of certain islands in Arrecife Alacrán as basepoints was a valid method for maritime delimitation in consonance with Article 132 of the ISNT? Although no official records have been made public on this matter,¹³¹ the U.S. presumably agreed to this procedure

127. See Székely, *Commentary*, *supra* note 120, at 157. The author points out that the chart made by the U.S. was "merely confirmed by Mexico," suggesting that both negotiating teams were in agreement regarding the use of islands for general delimitation purposes, and with respect to the demarcation of this specific maritime bilateral boundary. This is confirmed by Székely's assertion that "this line was drawn from the said Mexican islands. No discussion was sustained during the talks on the subject of the islands." *Id.*

128. See Székely, *Commentary*, *supra* note 120, at 157.

129. See *infra* note 184 and accompanying text.

130. See *infra* note 159 and accompanying text.

131. The content of these negotiations may be deduced from information con-

because Mexico produced uncontrovertible evidence that Isla Desterrada and Isla Pérez were within the meaning of the term "islands" as defined in the first paragraph of Article 132 of the ISNT. In other words, Isla Desterrada and Isla Pérez were most definitely "islands," not "rocks."

Mexico's legal and technical arguments may have sounded as follows:

1. Isla Desertora and Isla Pérez, as part of Arrecife Alacrán, are outside Mexico's twelve nautical mile territorial sea. However, both bodies conform to the definition of "island" provided by Article 132 of the ISNT. Isla Desertora and Isla Pérez comply with the three requirements established by this article. Both are (a) "a naturally formed area of land," (b) "surrounded by water," and (c) "above water at high tide." The Mexican delegation certainly produced physical, scientific, and technical evidence as proof of these conditions.

2. Article 132, paragraph 1, of the ISNT provides no information as to the requisite territorial extension of an island. Legally, the land area of an island may be irrelevant provided that it is "a naturally formed area of land . . . which is above water at high tide."

3. Among the most challenging positions for the Mexican negotiators was to prove that these islands were truly "islands" and not "rocks." Paragraph 2 of Article 132 of the ISNT recognizes that only "islands," and not "rocks," may have a territorial sea, a contiguous zone, an exclusive economic zone, and a continental shelf. However, paragraph 3 of this Article reads: "Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf."¹³²

Mexican fishing vessels use Arrecife Alacrán and Cayo Arenas as moorings to seek shelter from storms, make repairs, or simply to rest, as reported by Muñoz Lumbier.¹³³ In addition,

tained in the following sources: 1) the statement of Mark B. Feldman to the U.S. Senate, *infra* note 165; 2) Feldman and Colson, *Maritime Boundaries*, *supra* note 126, at 743-45; 3) Smith, *supra* note 6, at 402-05; and 4) Székely, *Commentary*, *supra* note 120, at 156-58.

132. ISNT, art. 132, ¶ 3, *supra* note 106, at 47.

133. Muñoz Lumbier states that between Isla Pérez, the most important part of Arrecife Alacrán, and the cays Pájaros and Chico, "there is a small port formed by

each island has a lighthouse, and a permanent keeper navigates between the lighthouses to maintain them in good working condition.¹³⁴ A Mexican scholar has pointed out that these islands, or any of the others used by Mexico to demarcate its 200 nautical mile EEZ, such as Isla Guadalupe,¹³⁵ Isla Socorro,¹³⁶ or Isla Clarión¹³⁷ in the Pacific, can be used in the near future, possibly to house a naval detachment or water desalinization plant, to develop agricultural projects, or to establish a fishing base.¹³⁸ As scientific and technological advances are made, it will become easier to provide certain small remote islands with some type of "human habitation or economic life of their own," in conformity with Article 121 of the 1982 Convention.¹³⁹

E. The EEZ and the Gulf of California

Domestically, the establishment of the EEZ in the interior of the Gulf of California led to a rather intriguing legal result. Because of the peculiar geographical configuration of this body

the reefs and quite useful for small vessels, with its bottom at four fathoms," which may be entered by sight alone. See *supra* note 107, at 109 (translation by author).

134. For an interesting study of the daily activities of José Alcalá, the lighthouse keeper, and Navy corporal Jose Manuel López Centurión, the only two persons living permanently on Cayo Arcas accompanied by a rotating Mexican Navy detachment, see Martha Elba Torres, *Cinco Años de Soledad lleva el Farero de Cayo Arcas, Campeche* [Five Years of Solitude of the Lighthouse Keeper of Cayo Arcas, Campeche], EL NACIONAL (Daily ed.), June 2, 1984, at 2.

135. Islas Guadalupe, Revillagigedo, Cayo Arenas, Pérez, and Desterrada were used as basepoints to delimit Mexico's EEZ, according to DETENAL. In the official chart indicating the outer boundary of Mexico's EEZ, twenty-seven precise points were used in this demarcation, I through XVI in the Pacific Ocean, and XVII through XXVII in the Gulf of Mexico. See Carta de la Zona Económica Exclusiva, *supra* note 123, at 3.

136. Archipiélago Revillagigedo was discovered in 1542 by Ruy Lopez de Villalobos. Formed by four islands, Isla San Benedicto, Isla Socorro, Roca Partida and Clarión, it is located in the Pacific Ocean between 18° 28'N, 19° 20'N and 110° 45'W, 114° 50' W, some 375 nautical miles from continental Mexico. For additional information, see Régimen Jurídico de las Islas Mexicanas y su Catalogo (1977), *supra* note 110, at 58; Isla Revillagigedo, Presencia Mexicana en el Pacífico, Secretaría de Marina (Mex. 1978).

137. Because of Isla Clarión, the most western island in the Archipiélago Revillagigedo, Mexico gained jurisdiction over one of the richest polymetallic nodule deposits in the Pacific Ocean, known as the Clipperton-Clarion Trench.

138. These suggestions are advanced in SZÉKELY, DERECHO INTERNACIONAL, *supra* note 76, at 209.

139. ISNT, article 132 was reproduced *in toto* in the final text of the 1982 Convention, *supra* note 11, art. 21.

of water, the establishment of an EEZ here led to the detachment of an important oceanic area from the high seas regime.

In 1968, the Mexican government applied the straight baseline method to the interior of the Gulf of California,¹⁴⁰ and a twelve nautical mile territorial sea was soon established.¹⁴¹ As a result, the oceanic area outside this maritime belt and within the lower part of the Gulf continued to belong to the high seas in conformity with principles of international law.¹⁴² The "entrance" to the Gulf of California measures only about 113 nautical miles,¹⁴³ yet was converted from high seas into a part of the newly-established 200 nautical mile EEZ. The establishment of this maritime zone in the Gulf of California, coupled with the delineation of its upper portion as internal waters as a consequence of applying the straight baseline method in 1968, legally transformed the entirety of this important marine space, endowed with varied natural resources¹⁴⁴ and oceanographic phe-

140. Decreto por el que se Delimita el Mar Territorial Mexicano en el Interior del Golfo de California [Decree Delimiting the Mexican Territorial Sea in the Interior of the Gulf of California], D.O., Aug. 30, 1968; Fe de Errata, D.O., Oct. 5, 1968. See also OFFICE OF THE GEOGRAPHER, U.S. DEPT OF STATE, BUREAU OF INTELLIGENCE AND RESEARCH, MEXICO: STRAIGHT BASELINES 4 (1970).

141. Mexico established a twelve nautical mile territorial sea in 1969. See *supra* note 78 and accompanying text. The decree entered into force the day after its publication and was repealed by the FOA, *supra* note 9, in 1986.

142. See Geneva Convention on the Territorial Sea and the Contiguous Zone, arts. 4-7, U.N. Doc. A/CONF. 13/L.52 (1958), reprinted in 52 AM. J. INT'L L. 834 (1958). Mexico subscribed to this Convention on August 2, 1966. See D.O., Aug. 17, 1966; D.O., Oct. 5, 1966. Based on this, the Mexican Congress amended Article 17 of the General Act of National Assets of 1942 to incorporate the straight baseline method as contained in Articles 4 and 5 of the Convention. See D.O., Dec. 29, 1967; D.O., Aug. 30, 1968.

143. The 1968 decree was technically backed by a careful *in situ* survey of the physical and geological conditions in the interior of the Gulf of California conducted by an Inter-Secretarial Commission formed by representatives of the Mexican Secretariats, including: Agriculture and Livestock [Agricultura y Ganadería], Foreign Relations [Relaciones Exteriores], Marine [Marina], and National Defense [Defensa Nacional]. The Commission recommended the manner in which the territorial sea should be demarcated within the Gulf. See Sepúlveda, *supra* note 26, at 247-50; see also SZÉKELY, DERECHO INTERNACIONAL, *supra* note 76, at 188.

144. Since the Europeans first sailed its waters in 1535, the Gulf of California has been known for its varied marine life, including oysters, fish, crustaceans, dolphins, tuna, as well as indigenous species such as "Totoaba" and "Vaquitas," which remain scarce and appear to be endangered. See J.C. Barrera, *The Conservation of Totoaba Macdonaldi* (Gilbert); 1990 PISCES: SCIAENIDAE IN THE GULF OF CALIFORNIA 16-20 (Bernardo Villa et al. eds.); *Heavy Metal Concentrations in Heart, Liver and Kidney Tissues in the Vaquita Phocoena Sinus*, 64 ANUARIO DEL INSTITUTO DE BIOLOGIA 61, 72 (1993).

nomena,¹⁴⁵ into a virtual "Mexican lake." (See Map B)

Chronologically, the "Mexicanization" of the Gulf of California occurred in two phases. First, in 1968 Mexico applied the straight baseline method to certain islands in the Gulf's middle portion, in particular to the strategically located Isla San Esteban, Isla Turners, and Isla San Pedro Mártir, in conformity with Article 4 of the Geneva Convention on the Territorial Sea and the Contiguous Zone of 1958. The application of this method resulted in an oceanic area situated north of Parallel 29, defined by Mexican legislation as internal waters. This marine area exists, therefore, between these islands in the south, and the Colorado River delta to the north. Second, in 1976 Mexico established its 200 nautical mile EEZ. Although the 1968 decree "nationalized" the northern part of the Gulf, the high seas regime regulated the lower part, which remained open. This marine portion consisted of the area beyond the Mexican twelve nautical mile territorial sea in the interior of the Gulf of California,¹⁴⁶ as demarcated in accordance with a combination of both normal and straight baselines pursuant to the 1968 decree.

Thus, prior to 1976, three different legal regimes embraced the Gulf of California: 1) an internal waters area in the north comprising the area situated behind the straight baselines established by the 1968 decree;¹⁴⁷ 2) a territorial sea, initially

145. The U.S. marine science community has had a decade-long fascination with the oceanographic phenomena associated with the Gulf of California, such as the existence of metallogenetic holes, deep-sea vents, extremely high tides, the active delta of the Colorado River, ferromanganese nodules, and the like. Phenomena in the Gulf of California has generated abundant scientific literature. In 1981, Scripps Institute of Oceanography and UNAM's Institute of Marine Sciences and Limnology [Instituto de Ciencias del Mar y Limnología] published a joint bibliography containing a listing of 4170 marine scientific works divided among twenty-seven major scientific categories. See RICHARD A. SCHWARTZLOSE & JOHN R. HENDRICKSON, BIBLIOGRAPHY OF THE GULF OF CALIFORNIA: MARINE SCIENCES 1 (pre-print, on file with author).

146. In 1968, when the straight baseline decree was enacted, Mexico claimed a nine nautical mile territorial sea based on its interpretation of Article V of the Treaty of Guadalupe Hidalgo of 1848, *supra* note 1. The nine nautical mile width of Mexico's territorial sea was formally established in 1935 by amending the first paragraph of Article 18 of the General Act of National Assets [Ley General de Bienes Nacionales], D.O., Aug. 31, 1935. The same Act was amended in 1969 to establish a twelve nautical mile territorial sea. See Decreto que Reforma el Primero y Segundo Párrafos de la Fracción II del Artículo 18 de la Ley General de Bienes Nacionales, *supra* note 78.

147. "[T]he northern part of the Gulf of California" as "Inland Marine Waters."

nine nautical miles wide, and enlarged to twelve in 1969, measured from the corresponding baselines in the interior of the Gulf, whether "normal"¹⁴⁸ or "straight" baselines; and 3) a high seas area, encompassing most of the lower portion of the Gulf. The establishment of the EEZ did not affect the legal regimes described in 1) and 2) above. Today, Mexico continues to recognize the northern part of the Gulf of California as "internal marine waters," and enforces the boundaries of a twelve nautical mile territorial sea in its interior lower part.¹⁴⁹ Regarding category 3), Mexico abandoned the high seas area for the legal regime of the EEZ,¹⁵⁰ as provided for in Part V of the 1982 Convention.¹⁵¹

On the international level, the establishment of the EEZ in 1976 forced Mexico to negotiate the necessary bilateral agreements with some of its neighboring countries,¹⁵² such as Cuba¹⁵³ and the U.S.¹⁵⁴ The agreement with Cuba was the first Mexico negotiated on the maritime delimitation of its 200 nautical mile zone, and served as a framework for the subsequent agreement with the U.S. The agreement established the boundary line through a "principle of equidistance," a formula

FOA, *supra* note 9, art. 36, ¶ I.

148. See Geneva Convention on the Territorial Sea and the Contiguous Zone, *supra* note 142, art. 3.

149. Although the Geneva Convention on the Territorial Sea and the Contiguous Zone, art. 4, ¶ 6, obliges the coastal state to give "adequate publicity" and "clearly indicate" on marine charts the baselines used along its coastlines, Mexico had not published an official marine chart depicting the straight baselines drawn in the interior of the Gulf of California pursuant to its 1968 decree until recently. See Székely, *DERECHO INTERNACIONAL*, *supra* note 76, at 68-73.

150. See VARGAS, *TERMINOLOGIA SOBRE EL DERECHO DEL MAR* 138, 144, *supra* note 117.

151. See 1982 Convention, *supra* note 11, arts. 55-75.

152. Although Mexico's EEZ abuts similar or identical maritime zones belonging to Cuba, Guatemala, Honduras, and the U.S., no maritime delimitation agreements have been entered into with Guatemala or Honduras.

153. See *Acuerdo Complementario* of July 26, 1976, *supra* note 122. This agreement was signed concurrently with an agreement that allowed Cuban vessels to access certain Mexican allowable-catch surpluses in accordance with the pertinent provision of the ISNT. Both the maritime boundary agreement and fishing agreement were carefully planned and diligently executed by Mexico as an exemplar for a nation determined to establish its 200 nautical mile EEZ. This was not done as a unilateral act in divergence from international law, but rather as an act of official policy. This policy was in compliance with the overwhelming support shown by the international community for the ISNT as a multilateral instrument reflecting a global consensus.

154. See *infra* note 159 and accompanying text.

which makes use of geodetic lines connecting clearly established geographic coordinates. Unlike the agreement with the U.S., the Cuban Exchange of Notes does not reference the North American Datum of 1927. Moreover, the established boundary line also includes the delimitation of "the continental shelf of Mexico and Cuba, if there is any."¹⁵⁵

III. MEXICO'S MARITIME DELIMITATION QUESTIONS

When Mexico established its 200 nautical mile EEZ, the U.S. was already in the process of creating its own 200 nautical mile "Fishing and Conservation Zone,"¹⁵⁶ which took effect on March 1, 1977,¹⁵⁷ less than a year after Mexico officially adopted its EEZ.¹⁵⁸ As a result, the U.S. and Mexican delegations agreed to establish a "provisional boundary" in the Gulf of Mexico and Pacific Ocean in order to delimit the outer and lateral boundaries of two legally separate maritime spaces, the U.S. Fishing and Conservation Zone vis-a-vis Mexico's EEZ. This agreement was included in the Exchange of Notes of November 24, 1976.¹⁵⁹ Both countries, "desirous of avoiding the uncertainties and problems that might arise from the *provisional character* of the present maritime boundaries between twelve and two hundred nautical miles seaward," subscribed to the Treaty on Maritime Boundaries in Mexico City on May 4, 1978.¹⁶⁰

155. See Acuerdo Complementario of July 26, 1976, *supra* note 122.

156. See Fishery Conservation and Management Act, Pub. L. No. 94-265, 16 U.S.C. § 1801 (1976) (reprinted in 15 I.L.M. 634). See also William T. Burke, *U.S. Fishery Management and the New Law of the Sea*, 76 AM. J. INT'L L. 24, 55 (1982); Warren G. Magnuson, *The Fishery Conservation and Management Act of 1976: First Step Toward Improved Management of Marine Fisheries*, 52 WASH. L. REV. 427 (1977). For an analysis of the Act's legal implications for Mexico, see JORGE A. VARGAS, MÉXICO Y LA ZONA DE PESCA DE ESTADOS UNIDOS (Mex. 1979).

157. Fishery Conservation and Management Act, Pub. L. No. 94-265, § 2(b)(1), 16 U.S.C. § 1801 (1976).

158. According to the "Transitory" article of the Decree amending Article 27 of the Mexican Constitution, D.O., Feb. 6, 1976, Mexico's EEZ entered into force on June 6, 1976, 120 days after publication.

159. Exchange of Notes, *supra* note 3. See also Acuerdo para el Reconocimiento Provisional de las Fronteras Marítimas entre los Estados Unidos Mexicanos y los Estados Unidos de América en ambos Litorales [Agreement to Provisionally Recognize the Maritime Boundaries between the United Mexican States and the United States of America], Relación de Tratados En Vigor, *supra* note 59, at 45 (translation by author).

160. Treaty on Maritime Boundaries between the United States of America and the United Mexican States, *supra* note 4 (emphasis added).

In compliance with the Mexican Constitution, two-thirds of the Mexican Senate ratified the treaty,¹⁶¹ which soon became "the Supreme law of the entire Union."¹⁶² The Mexican legislature thus successfully completed the agreement, creating a "constitutionally perfect" treaty. However, the legislative process in the U.S. proved more difficult. Once the treaty was signed by Cyrus Vance¹⁶³ in Tlatelolco, U.S. President Carter, seeking advice and consent, delivered it to the U.S. Senate. The treaty was introduced on the floor of the U.S. Senate on August 5, 1980¹⁶⁴ and the Senate Foreign Relations Committee reported favorably on it.¹⁶⁵ However, on September 16, 1980, the Senate indefinitely postponed consideration of the treaty when questions arose regarding rich hydrocarbon and natural gas deposits in the deepest portion of the Gulf of Mexico.¹⁶⁶ In part, these questions were raised in response to a statement by Dr. Hollis D. Hedberg, a former executive of the Gulf Oil Corporation and emeritus professor of geology at Princeton University.¹⁶⁷

Dr. Hedberg's arguments may be separated into three parts. First, he argued that the methodology both countries used to

161. Paragraph 1 of Article 76 of the Mexican Constitution includes among the "exclusive powers of the Senate" the power "to approve the international treaties and diplomatic conventions subscribed by the Executive of the Union." (translation by author). See MEX. CONST. art. 76, ¶ 1.

162. Article 133 of the Mexican Constitution provides in part: "[T]his Constitution . . . and all treaties in accordance with it, subscribed, and that shall be made by the President of the Republic, with approval of the Senate, shall be the Supreme Law of the entire Union." MEX. CONST. art. 133 (translation by author).

163. In a letter to U.S. President Carter, Secretary of State Vance noted that "after a year of experience with the provisional maritime boundaries both governments came to view that *previously contemplated technical work was unnecessary and that they were satisfied that the provisional maritime boundary should be made permanent.*" Letter from Secretary of State Cyrus Vance to President Jimmy Carter, (Dec. 27, 1978), 96th Cong., 1st Sess. (1978) (emphasis added).

164. *Three Treaties Establishing Maritime Boundaries Between The United States and Mexico, Venezuela, and Cuba: Hearings on S. Exec. Rep. No. 96-49 Before the Comm. on Foreign Relations*, 96th Cong., 2d Sess., at 20 (statement of Mark B. Feldman, Deputy Legal Advisor, U.S. Dept. of State) [hereinafter Feldman Statement].

165. *Id.* at 3-4.

166. See 126 CONG. REC. S12,711, at 25,550 (1980).

167. *Three Treaties Establishing Maritime Boundaries Between The United States and Mexico, Venezuela, and Cuba: Hearings on S. Exec. Rep. No. 96-49 Before the Comm. on Foreign Relations*, 96th Cong., 2d Sess., at 28-33 (statement of Hollis Hedberg, Professor Emeritus of Geology, Princeton University) [hereinafter Hedberg Statement]. See also H.D. Hedberg, *Evaluation of the U.S.-Draft Treaty on Boundaries in the Gulf of Mexico*, 14 MARINE TECH. SOC'Y J. 1, 32, 37 (1980).

demarcate the maritime boundary in the Gulf of Mexico was technically flawed. He strongly opposed the use of Arrecife Alacrán, offshore the Yucatán peninsula, as a base point for determining the equidistant line.¹⁶⁸ Second, he proposed not using Mexican islands to demarcate the maritime boundary.¹⁶⁹ Third, he stated that geological data indicated the presence of "some of the most promising, though very deep water, petroleum-prospective acreage off the U.S. coast anywhere, in an oceanic area located in the central portion of the Gulf of Mexico." Under Article I of the Treaty, this rich submarine area was situated south of the maritime boundary, within Mexico's EEZ. He claimed that because of the improper use of Arrecife Alacrán, the U.S. "would needlessly lose . . . almost all of the northwestern deep-water part of the Gulf of Mexico — about 25,000 square miles" ¹⁷⁰ In conclusion, Dr. Hedberg "strongly urge[d] that the 1978 draft treaty be rejected."¹⁷¹

Dr. Hedberg's arguments had no legal merit.¹⁷² The inter-

168. Hedberg Statement, *supra* note 167, at 29, 32. See also Karl M. Schmitt, *The Problem of Maritime Boundaries in U.S.-Mexican Relations*, 22 NAT'L RESOURCES J. 138, 153 (1982).

169. Dr. Hedberg proposed that "the base of the continental slope should be the fundamental guide to political boundaries on the ocean floor" and that "[i]sland dependencies situated on continental shelves and slopes should not control national boundaries beyond the base of the continental slope." Written Statement of Hollis D. Hedberg Statement, *supra* note 167, at 33. See also Hedberg, *Ocean Floor Boundaries*, 204 SCIENCE 135 (1989).

170. Hedberg Statement, *supra* note 167, at 32.

171. *Id.* at 33.

172. In testimony before the Committee on Foreign Relations of the U.S. Senate, Mark B. Feldman rebutted the arguments advanced by Hedberg. Regarding the major challenge to the use of islands as basepoints for the boundary line in the Gulf of Mexico, Feldman said:

This practice [the use of islands] follows the precedent of the 1970 Treaty, but the argument is made that the agreement gives Mexico more area in the deep waters of the east central Gulf than should be the case. In considering this issue, the Committee should note that the use of islands as basepoints gives the United States substantial areas in the Pacific off the coast of California. These Pacific areas have hydrocarbon potential and are also of considerable interest to U.S. fishermen. There may also be hydrocarbons in the seabed under the waters of the east central Gulf, but these areas are under deep waters and will not be exploited for some years. There are not significant fisheries in that area. [B]efore making this agreement the Department of State solicited the best available expert advice including scientists at the U.S. Geological Survey and at Woods Hole Oceanographic Institute and the U.S. fishing industry.

Feldman Statement, *supra* note 165, at 11.

national law of the sea has long approved the practice of using islands to demarcate oceanic spaces under the coastal state's sovereignty or jurisdiction.¹⁷³ Moreover, when Mexico proposed to the U.S. "the provisional boundary" segment in the Western Gulf of Mexico,¹⁷⁴ after two negotiating sessions had concluded between the delegations of each country,¹⁷⁵ both governments agreed to negotiate the boundary based upon the provisions of the ISNT.¹⁷⁶ Article 132 of the ISNT provides that islands¹⁷⁷ may not only have their own traditional oceanic spaces, such as a territorial sea, a contiguous zone, and a continental shelf, but also a 200 nautical mile EEZ. However, "rocks which cannot sustain human habitation or economic life of their own,"¹⁷⁸ may not have an EEZ or continental shelf. Mexico therefore simply applied the legal principles enunciated in Article 132 to Arrecife Alacrán.¹⁷⁹ Regarding this, authors Feldman and Colson note that "U.S. officials concluded, on the basis of information provided by Mexico, that the Mexican island in question, Arrecife [sic] Alacrán, was capable of meeting the island test."¹⁸⁰

Mexico was entitled to use these islands based upon the agreement reached on this specific issue with U.S. negotiators.¹⁸¹ Mexico then proceeded to utilize the ISNT to reach conformity with the results accomplished at that time by UNCLOS

173. See *Anglo-Norwegian Fisheries Case* (U.K. v. Nor.), 1951 I.C.J. 8; Geneva Convention on the Territorial Sea and the Contiguous Zone, Apr. 29, 1958, U.S.-Mex., art. 4, 15 U.S.T. 1606.

174. See *Exchange of Notes*, *supra* note 3, at 197, 199-200.

175. See Székely, *Commentary*, *supra* note 120, at 156.

176. See ISNT, *supra* note 106. Article 61 provided that the delimitation of 200 nautical mile zones between states with opposite or adjacent coasts should be done "on the basis of equitable principles and with the use of the median or equidistant line." *Id.* Cf. 1982 Convention, art. 74, ¶ 1, *supra* note 11.

177. Under the 1982 Convention, an island is "a naturally formed area of land, surrounded by water, which is above water at high tide." 1982 Convention, *supra* note 11, art. 121, ¶ 1.

178. ISNT, *supra* note 106, art. 132; 1982 Convention, *supra* note 11, art. 121, ¶ 3.

179. Recently, Székely asserted:

[T]he first proposal of a chart containing the drawing of the dividing line [in the Gulf of Mexico] was made by the U.S. side, a chart which was merely confirmed by Mexico. This line was drawn from the said Mexican islands [offshore the Yucatán peninsula]. No discussion was sustained during the talks on the subject of the islands.

Székely, *Commentary*, *supra* note 120, at 157.

180. Feldman and Colson, *Maritime Boundaries*, *supra* note 126, at 743.

181. See Székely, *Commentary*, *supra* note 120, at 156.

III. In 1980, Mexico firmly believed that ISNT principles, now incorporated into the 1982 Convention, were already a part of customary international law.¹⁸²

The "giving of full effect to islands" to demarcate the maritime boundaries of the U.S. with Mexico "was perceived as consistent with U.S. interests in other boundary situations."¹⁸³ It has been expressly acknowledged that:

[U]sing U.S. islands off the coast of California (i.e., San Clemente, San Nicolás and Santa Cruz), clearly benefited the United States in the Pacific, while using smaller Mexican islands off the Yucatán benefited Mexico in the Gulf of Mexico. At the time, this solution was thought to be in the best interest of both countries.¹⁸⁴

As a matter of official policy, the U.S. uses the islands it possesses to enhance its national interests in the demarcation of maritime boundaries.¹⁸⁵ Thus, giving full effect to islands, such as those located offshore California, Florida, and Alaska, for example, benefitted the U.S. in its delimitation of marine spaces with Mexico and Cuba.¹⁸⁶ The beneficial use of its many is-

182. *Id.* at 151-58.

183. Feldman and Colson, *Maritime Boundaries*, *supra* note 126, at 744. In this respect, Dr. Smith wrote: "Viewed from the perspective of all United States maritime boundaries, the proposed Mexico-U.S. boundary is consistent with American interests and the guiding policy that maritime boundaries be established by agreement in accordance with equitable principles." Smith, *supra* note 6, at 405 (emphasis added).

184. Feldman and Colson, *supra* note 126, at 744.

185. The limit of the U.S. Fishery Conservation and Management Zone of 200 nautical miles was announced in the *Federal Register*, March 7, 1977. As a consequence of these limits, the determination of the U.S. position in each boundary situation had to be consistent with "U.S. political, security, and economic interests and justifiable under international law." More specifically, these boundaries had to be drawn "under general principles of international law and the 1958 Geneva Convention on the Continental Shelf, [and] maritime boundaries between adjacent and opposite states are to be determined by agreement in accordance with equitable principles, and each state has an obligation to negotiate in good faith with its neighbors with a view to reaching agreement on the boundary between their respective jurisdictions." Feldman and Colson, *Maritime Boundaries*, *supra* note 126, at 743 (emphasis added).

186. The original exchange of notes with Cuba in July 1976 was later elevated to the category of a formal treaty. The Maritime Boundary Agreement with the Republic of Cuba was signed at Washington, D.C., December 16, 1977; however, the U.S. Senate did not vote on it. See *Three Treaties Establishing Maritime Boundaries Between the United States and Mexico, Venezuela, and Cuba: Hearings on S. Exec. Rep. No. 96-49 Before the Comm. on Foreign Relations*, 96th Cong., 2d Sess., at 3,4 [hereinafter *Hearings*]; 126 CONG. REC. S12,712 (1980), at 25,718-19.

lands, including Puerto Rico, the Virgin Islands, Hawaii, Midway, Johnstone Atoll, American Samoa, Jarvis Island, Kingman Reef and Palmyra Atoll, Howland and Baker Islands, Wake Island and Guam, has allowed the U.S. to have the largest 200 nautical mile EEZ on the planet.¹⁸⁷

Regarding the methodology of delimiting oceanic spaces, it is not surprising that the U.S. and Mexico share many legal and technical principles. In 1970, for example, both countries negotiated the international maritime boundary out to twelve nautical miles in the Pacific Ocean and Gulf of Mexico¹⁸⁸ using commonly agreed-upon principles. These principles included: 1) the use of the principle of equidistance; 2) the use of islands; 3) the simplification of the resulting boundary line for practical reasons; and 4) the use of geodesic points, marked by coordinates of longitude and latitude based on the 1927 North American Datum as an essential technical component in the drawing of the final boundary on a nautical chart.

Almost since its inception, the IBWC has used a methodology combining similar legal and technical principles known as *mutatis mutandis*.¹⁸⁹ The Chamizal Convention¹⁹⁰ and the Treaty for the Elimination of Banks along the Rio Grande¹⁹¹ are examples of agreements reached by the U.S. and Mexico in simplifying the demarcation of international boundaries. Solving these types of complicated boundary problems along one of the longest and most technically-challenging bilateral boundaries in the Western Hemisphere has provided these two nations with

187. According to Smith, "[t]he area enclosed by this extension of maritime jurisdiction includes approximately 2,222,000 square nautical miles off the coasts of the fifty states and 885,000 square miles off the coasts of the possessions and commonwealth." Smith, *supra* note 6, at 395. See also Feldman and Colson, *Maritime Boundaries*, *supra* note 126, at 744.

188. See Treaty to Resolve Pending Boundary Differences and Maintain the Rio Grande and the Colorado River as the International Boundary between the United States and Mexico, Nov. 23, 1970, U.S.-Mex., 23 U.S.T. 371. See also OFFICE OF THE GEOGRAPHER, U.S. DEPT OF STATE, BUREAU OF INTELLIGENCE AND RESEARCH, MARITIME BOUNDARY, MEX.-U.S. 45 (1972).

189. For example, longitude and latitude coordinates were used for the first time in the demarcation of the international boundary between both countries, in conformity with the Guadalupe Hidalgo Treaty of 1848 and the Gadsden Purchase of 1853, *supra* note 1.

190. Convention for the Solution of The Chamizal Problem, Aug. 29, 1963, U.S.-Mex., 15 U.S.T. 21.

191. Convention for the Rectification of the Rio Grande (Rio Bravo del Norte) in the El Paso-Juarez Valley, Feb. 1, 1933, U.S.-Mex., T.S. 864.

unparalleled experience in analyzing delicate demarcation issues, despite the complex historic and emotional underpinnings of their relationship. Until the situation at hand, both nations always succeeded in reaching equitable, objective, and technically-efficient solutions. This history explains the accelerated pace and successful outcome of the negotiating process for the demarcation of a very complicated 200 nautical mile maritime boundary. On technical questions, it may be appropriate to recall the emphatic assertion of U.S. Department of State officials that the boundary line proposed by Mexico "was based on the methodology used in drawing the twelve nautical mile maritime boundary in the 1970 U.S.-Mexican Treaty."¹⁹²

In furtherance of Mexico's official mandate to establish limits on U.S. enforcement of its 200 nautical mile fisheries jurisdiction,¹⁹³ the U.S. agreed in the Exchange of Notes of 1976 to the proposed boundaries in the Gulf of Mexico and Pacific Ocean, but only "as a provisional boundary."¹⁹⁴ Once both countries determined that the proposed coordinates "were suitable for a permanent boundary," Mexico and the U.S. transposed these same coordinates in the formal treaty drafted two years later in Mexico City.¹⁹⁵

Has the U.S. Senate's failure to act on the 1978 Treaty with Mexico negated the maritime boundary enunciated in the 1976 Exchange of Notes, or does that boundary remain in force precisely because the Senate has failed to act? It is evident that the Exchange of Notes has lost neither its main purpose, nor its legally binding force.¹⁹⁶ As reported, both countries negotiated

192. Feldman and Colson, *Maritime Boundaries*, *supra* note 126, at 743. These authors explained that the rapid acceptance of the "Mexican boundary line" by the negotiating team of the U.S. was not only due to the fact that the applied methodology was correct from a legal and technical viewpoints, but also because the proposed line was "deemed consistent with [the U.S.'s] resource interests" (emphasis added).

193. See Notice Establishing the Limits of the Fishery Conservation Zone, 42 Fed. Reg. 12,937-40 (1977); 16 U.S.C. § 1811. For the successive notices that have corrected errors or made modifications in the original delimitation notice, see 42 Fed. Reg. at 24,134 (1977); 43 Fed. Reg. at 8606 (1978); 44 Fed. Reg. at 74,956 (1979).

194. See *supra* note 159 and accompanying text.

195. See Treaty on Maritime Boundaries, *supra* note 4. See also Feldman and Colson, *Maritime Boundaries*, *supra* note 126, at 740. These authors report that "the [1976] agreement was not cast in the form of a treaty at that time because the parties wanted to consider whether further technical work was necessary to establish a scientifically more precise boundary." *Id.*

196. On this question, Feldman and Colson are of the opinion that "the exchange

this agreement in good faith and utilized a method for the demarcation of the maritime boundary that is in full symmetry, both juridically and technically, with the principle of equidistance, the use of islands, and the practical simplification of the results. Moreover, both parties fully agreed to the use of this method and have successfully applied it to sensitive delimitation cases in the past.¹⁹⁷ Consequently, the boundary is legally and technically impeccable.

From the international law perspective, a maritime boundary contained in a bilateral agreement may not be challenged nor questioned unless it is in clear violation of both the applicable legal principles that control boundary delimitation questions and the technical considerations agreed upon by the parties. Therefore, even if a validly-drawn maritime boundary does not conform to the political, economic, military, or diplomatic expectations of one of the parties, it must remain in place and in effect.

A. The Continental Shelf in the Gulf of Mexico: A Proposal for its Delimitation

Turning now to the last of Mexico's statutorily defined marine spaces, "the Continental Shelf and Insular Shelves," Article 57 of the FOA provides that the Mexican nation exercises over these submarine spaces "sovereign rights for the purposes of exploring them and exploiting their natural resources."¹⁹⁸ Generally, the legal content of the provisions concerning this marine space closely follows the 1958 Geneva Convention on the Continental Shelf¹⁹⁹ and the 1982 Convention.²⁰⁰

Mexico takes its definition of the continental shelf, as enun-

of notes will remain in effect until a treaty is brought into force, or until either government takes action effectively to terminate the agreement" [since the 1976 exchange of notes does not contain a specific termination provision, its unilateral termination would be governed by customary international law]. Feldman and Colson, *Maritime Boundaries*, *supra* note 126, at 740 (emphasis added).

197. For some of these cases, see *supra* notes 189-92 and accompanying text.

198. FOA, *supra* note 9, art. 57 (translation by author).

199. Convention on the Continental Shelf, Apr. 29, 1958, U.S.-Mex., 15 U.S.T. 471 (entered into force June 10, 1964). Mexico adhered to it on Aug. 2, 1966; see D.O., Dec. 16, 1966. In particular, articles 58 and 59 of the FOA appear to be inspired by paragraphs 2 and 3, respectively, of Article 2 of this Convention.

200. See 1982 Convention, *supra* note 11, arts. 76-85.

ciated in the FOA's Article 62, directly from Article 76, paragraph 1, of the 1982 Convention. This definition applies to "islands," as defined in Article 121 of the 1982 Convention. The FOA expressly provides that "islands have a continental shelf" while "rocks which cannot sustain human habitation or economic life of their own, do not."²⁰¹ However, the final sentence of Article 62 provides that this definition applies not only to islands, but also to "cays and reefs [*cayos y arrecifes*] that form a part of the Mexican territory."²⁰²

In those places where the outer limit of the continental margin of the continental shelf or island shelves does not extend to 200 nautical miles, Article 65 of the FOA, in consonance with Article 76, paragraph 1, of the 1982 Convention, stipulates that the outer boundary of the shelves shall coincide exactly with the outer boundary "of the subsoil" of Mexico's 200 nautical mile EEZ, as depicted in the official charts.²⁰³

The demarcation of the 200 nautical mile boundary between the U.S. and Mexico poses a most intriguing question for specialists in international law. Since its inception, Mexico and the U.S. agreed that the original maritime boundary "provisionally recognized" by both countries in 1976, did not apply to the continental shelf. The diplomatic note sent by Dr. Alfonso García Robles, then Mexican Secretary of Foreign Relations, to the U.S. Ambassador on November 24, 1976, is quite explicit on this matter:

I take the liberty of pointing out that our two countries have not yet delimited their respective continental shelves beyond 12 nautical miles seaward from the respective coasts, and that the present arrangement with respect to maritime boundaries, based on the Treaty to Resolve Pending Boundary Differences and Maintain the Rio Grande and the Colorado River as the International Boundary, concluded in 1970, *only extends the maritime boundary to 12 nautical miles*.²⁰⁴

Mexico's statement that the two countries have yet to agree

201. FOA, art. 63 was copied from 1982 Convention, art. 121, ¶ 3.

202. FOA, *supra* note 9, art. 62.

203. *Id.* art. 65.

204. Exchange of Notes, *supra* note 3, at 199 (emphasis added). In response, U.S. Ambassador Joseph John Jova agreed with the general tenor of the Mexican note, thus formalizing the agreement.

on a precise delimitation of their opposite and adjacent continental shelves has a direct bearing on the tracing of submarine boundaries in the Gulf of Mexico and the Pacific Ocean. Unquestionably, this diplomatic exercise constitutes a serious and sensitive negotiation not only because of the economic, technological, and national security implications, but also in light of the contrasting legal positions concerning the international seabed area beyond the limits of national jurisdiction, a region commonly known as the Area.²⁰⁵ Whereas Mexico supports the Area and the notion of the "common heritage of humankind,"²⁰⁶ the U.S. has given both concepts a distinct legal interpretation since the inception of the law of the sea negotiations.²⁰⁷

Examining the consequences of the submarine delimitation in the Gulf of Mexico reveals that the outer boundary lines of the 200 nautical mile EEZ from the coasts of the U.S.²⁰⁸ and Mexico did not overlap in the central Gulf of Mexico because the distance between the two countries in this area exceeds 400 nautical miles. Consequently, a relatively small portion of seabed and ocean floor, its subsoil and superjacent waters, located in the middle of the Gulf, remained outside the respective national 200 nautical mile oceanic zones. In a prepared statement made to the U.S. Senate, Mark B. Feldman, Deputy Legal Adviser to the U.S. Department of State, described the situation as follows:

In the central Gulf of Mexico there is a *reach of waters approximately 129 nautical miles in length where there is no fishery boundary between the two countries*. In this area the coasts of the two countries opposite each other are more than

205. See 1982 Convention, pt. XI, arts. 133-91, *supra* note 11.

206. See sources cited *supra* note 59.

207. For a collection of statements made during the administration of President Reagan on seabed questions and Part XI of the draft 1982 Convention, see Statement by the President, *U.S. Policy and the Law of the Sea*, Jan. 29, 1982, Dept. St. Bull., Mar. 1982, at 54; White House Fact Sheet, Jan. 29, 1982, at 54-55 (accompanying Presidential statement); Statement by Ambassador James L. Malone, Special Representative of the President, before the U.S. House Merchant Marine and Fisheries Committee, Feb. 23, 1982, May 1982, at 61-63; Statement by the President, July 9, 1982, Aug. 1982, at 71; Statement by Ambassador J.L. Malone, before the U.S. House Foreign Affairs Committee, Aug. 12, 1982, Oct. 1982, at 48-50.

208. Proclamation by President Ronald Reagan, Washington, D.C., Mar. 10, 1983. Proclamation No. 5030, 48 Fed. Reg. 10,605 (1983). Based on this proclamation the U.S. adopted a 200 nautical mile EEZ. Legally, the U.S. EEZ substituted for the original fishery conservation zone.

400 nautical miles apart, so our fisheries zones do not overlap. *We have not drawn a continental shelf boundary in this area for the time being because the limit of the outer edge of the continental margin is presently a matter under active negotiation at the Third United Nations Conference on the Sea.* Out of respect for this process and in view of the fact that water depths in this area do not readily admit of exploitation at the present time, *it was decided that there is no immediate need to determine a boundary in this area.* We intend to keep this matter under active review and at such time as may be appropriate we will establish a maritime boundary with Mexico in this area.²⁰⁹

The demarcation of the outer boundaries of the respective 200 nautical mile zones recognized in 1976 created a "window" resembling a triangle, with the 129 nautical mile segment in the north as its base and the intersection of the two 200 nautical mile arcs drawn from the proper baselines offshore Yucatán and Texas as the vortex, pointing to the south (See Map B).²¹⁰ From Mexico's perspective, this window consisting of seabed and sub-soil is part of the Area, and the corresponding superjacent waters are "high seas".²¹¹ Mexico would assert that this oceanic area is to be regulated by Parts XI and VII of the 1982 Convention, applicable to the Area and the High Seas respectively. Consequently, as the controlling regime in this area is the 1982 Convention, it is outside the scope of any bilateral agreement between the U.S. and Mexico.

This position would lead to the legal conclusion that the submarine triangle located at the bottom of the Gulf of Mexico is subject to principles conforming to the legal regime of the Area, as formulated in Part XI of the 1982 Convention.²¹² For example, the Area and its resources constitute the "common heritage of humankind",²¹³ no State shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resourc-

209. See Feldman Statement, *supra* note 164, at 11 (emphasis added).

210. Hedberg, in his prepared statement before the U.S. Senate, suggested that this area may comprise roughly 25,000 square miles. See *Hearings*, *supra* note 186, at 29.

211. This argument was advanced by Székely in his *Commentary*, *supra* note 120, at 158.

212. See 1982 Convention, *supra* note 11, arts. 1, ¶ 1, pts. 1-3 at 133, 135, 136-49.

213. *Id.* art. 136.

es;²¹⁴ the Area shall be open to use only for peaceful purposes by all States;²¹⁵ no State or natural or juridical person shall claim, acquire or exercise rights with respect to the minerals recovered from the Area, except in accordance with Part XI of the Convention;²¹⁶ and marine scientific research in the Area shall be carried out exclusively for peaceful purposes and the benefit of humankind.²¹⁷ Until recently, the U.S. has raised serious objections to Part XI of the 1982 Convention.²¹⁸ Furthermore, if the triangular area in question is part of the Area, then any exploration or commercial exploitation of its mineral resources, principally hydrocarbons and natural gas, must be governed by the International Seabed Authority in conformity with the 1982 Convention.²¹⁹

Three factors suggest that Mexico may adhere to this approach. First is the strong and sustained support Mexico gave to the formation of a new legal regime for the oceans. This support was evident throughout the UNCLOS III negotiations, concluding with the 1982 Convention.²²⁰ For decades, Mexico has shown interest in the progressive development and codification of the law of the sea, at both regional and global levels, explaining, in part, the international legal community's recognition of several of Mexico's Secretaries of Foreign Relations as specialists in the law of the sea.²²¹ Second is the contribution made by Mexico toward the definition of the Area and the "common heritage of humankind" concepts,²²² as well as its role in the formulation of the 1982 Convention. Third, Mexico's tradition fa-

214. *Id.* art. 137, ¶ 1.

215. *Id.* art. 141.

216. *Id.* art. 137, ¶ 3.

217. *Id.* art. 143, ¶ 1.

218. For the major objections advanced by the Reagan administration against Part XI, see sources cited at *supra* note 208. Recently, these major objections have been "substantially accommodated" in an agreement annexed to UN Doc. A/48/950 (1994), adopted by a vote of 121 in favor (including the U.S. and nearly all other industrialized nations), none against, and 7 abstentions. GA Res. 48/263 (July 28, 1994 [hereinafter 1994 Agreement]). See Bernard H. Oxman, *Law of the Sea Forum: The 1994 Agreement on Implementation of the Seabed Provisions of the Convention on the Law of the Sea*, 88 AM. J. INT'L L. 687, 714 (1994).

219. See 1982 Convention, *supra* note 11, arts. 151-153.

220. See *supra* note 59.

221. For example, Alfonso García Robles, Jorge Castañeda, and Bernardo Sepúlveda.

222. See Székely, DERECHO INTERNACIONAL, *supra* note 76, at 183-204.

voring international law,²²³ especially in matters pertaining to the law of the sea,²²⁴ supports the conclusion that Mexico would be open to an approach conforming to the 1982 Convention.

By contrast, the U.S. might assume a different stance. The official U.S. policy has been to oppose the notions of the Area, the Authority, and the Enterprise as they are currently expressed in Part XI of the 1982 Convention.²²⁵ If this U.S. policy were extended to the triangular submarine area in the middle of the Gulf of Mexico, beyond the limits of national jurisdiction, a number of interesting hypothetical situations arise. In exercising rights derived from the high seas concept, the U.S. might argue that it has the "right to capture and exploit" the mineral resources present in its seabed and subsoil, just as it has the right to capture and exploit fish and other living resources in the superjacent waters of that triangular area in conformity with the high seas regime.²²⁶ Mexico would consider this position to be in violation of conventional international law as reflected in the 1982 Convention.²²⁷

In a diplomatic note of November 24, 1976, Dr. García Robles pointed out to the U.S. that, "our two countries have not yet delimited their respective continental shelves beyond twelve nautical miles seaward from their respective coasts."²²⁸ At least one U.S. official agreed with Dr. Robles' observation.²²⁹ Nevertheless, the following statement was published in an arti-

223. *Id.* at 125-48; see also *supra* note 59.

224. Mexico is currently a party to 51 international conventions on the law of the sea, marine pollution, fishing and conservation, oceanographic, navigation or maritime questions. See *Relación De Tratados En Vigor*, *supra* note 13, 59, at XXIV-XXVI.

225. Most of the objections raised by the U.S. and other industrial states appear to have been resolved by the 1994 Agreement, see *supra* note 218.

226. Many industrial states have taken the position that freedom of the high seas, affirmed by Part VII of the 1982 Convention, includes the freedom to mine the deep seabed and ocean floor. See generally sources cited in *supra* note 218.

227. A more extreme interpretation is that U.S. actions may be in violation of customary international law.

228. For the text of the Mexican diplomatic note, see *supra* note 159 and accompanying text.

229. In a diplomatic note addressed to Mexico, U.S. Ambassador Jova wrote: In reply, it is my honor to inform you that, *the proposal set forth in your Note is acceptable to the government of the United States. Accordingly, I agree that your note and this reply shall constitute an Agreement between our two Governments, which shall enter into force on the date of this reply.* *Id.* at 202 (emphasis added).

cle authored by two U.S. Department of State officials:

Neither State has yet defined its position on the extent of its continental shelf in the central Gulf where the opposing coasts are more than 400 nautical miles apart, *but it seems highly likely that the two States [Mexico and the United States] have a continental shelf boundary in that area.*²³⁰

The U.S. and Mexico should demarcate their respective continental shelves beyond twelve nautical miles seaward to "the outer edge of the continental margin, or to a distance of 200 nautical miles . . . where the outer edge of the continental margin does not extend up to that distance."²³¹ The delimitation of this important submarine area is imperative for legal, economic, and national security reasons. Accordingly, the question is not why or how, but when this delimitation will occur.

Feldman and Colson's statement suggests that recent geological surveys have determined that the deepest central portion of the Gulf of Mexico is an area where the outer edge of the continental margin extends beyond a distance of 200 nautical miles. In this case, both countries would have to agree on a method of dividing the subject area. This division would establish the legal bilateral boundary of the respective continental shelves (including the continental margin) in the middle of the Gulf of Mexico.²³²

Recent studies indicate that the Gulf of Mexico basin is a

230. Feldman and Colson, *Maritime Boundaries*, *supra* note 126, at 734 (emphasis added. Mr. Feldman is now in private practice in Washington, D.C. Previously, he was Deputy Legal Advisor of the U.S. Department of State and responsible for the U.S. maritime boundary program. Mr. Colson is Assistant Legal Advisor, designate, of the State Department for Oceans, International Environment and Science Affairs.

231. 1982 Convention, *supra* note 11, art. 76, ¶ 1.

232. On this technical question, special attention should be given to the timely scientific compilation entitled *The Gulf of Mexico Basin*, edited by the Department of Geological Sciences of the University of Texas at Austin and published under the auspices of The Geological Society of America. The study reviews "the seismic stratigraphy and geological setting of the deep Gulf of Mexico basin and adjacent margins as inferred mainly from the interpretation of seismic reflection data." It constitutes a comprehensive review of the most important seismic studies conducted from the late 1950s and early 1960s until today by academic institutions, the U.S. Naval Oceanographic Office, private industries, and the National Science Foundation sponsored Deep Sea Drilling Project (DSDP). *THE GEOLOGY OF NORTH AMERICA, VOL. J: THE GULF OF MEXICO BASIN* (Amos Salvador, ed., 1991).

unique geological phenomenon, described as "one of the foremost petroleum provinces of the world."²³³ By the end of 1987 this basin had a "demonstrated ultimate known recovery" of 112.7 billion barrels of crude oil, 22.5 billion barrels of natural gas liquids (for a total of 135.2 billion barrels of petroleum liquids), and 534.8 trillion cubic feet of natural gas, for a total of 222.54 billion barrels of oil equivalent.²³⁴ Based on the most recent seismic studies, the structure of the basin may be characterized as a geological continuum contained in a semi-enclosed area. Structurally, this basin may be formed by four geological components: 1) the geomorphological continental shelf located along specific portions of the Gulf of Mexico, in particular the Yucatan shelf, the west Florida shelf, and the Texas-Louisiana shelf; 2) the continental slope which, as a natural prolongation of the shelf, penetrates into the basin's deeper areas (given the semi-enclosed nature of the Gulf, these continental slopes virtually "merge" in certain areas, uniting opposite continental slopes such as the geological continuum formed by the Yucatan shelf, the Florida Plain, and the West Florida shelf); 3) the deepest oceanic crust lying over the Earth's mantle and constituting the "geological basement" of the basin (according to the most recent evaluation of the seismic stratigraphy of the deep Gulf of Mexico, these three geological structures have a thickness of some twenty kilometers);²³⁵ and 4) a layer of sediments that has been gradually deposited over millions of years upon the continental slope and in the central portion of the Gulf of Mexico.

The uniqueness of the Gulf's geological structure may be supported by the confluence of several distinct features. First, there exist a number of clearly defined and naturally formed carbonate platforms, such as those offshore Campeche and Florida.²³⁶ Second, continental margins come from opposite sides of the basin and tend to meet and merge in the middle of the Gulf. Third, the somewhat circular shape of the basin also contributes to its uniqueness. Also warranting special attention is the somewhat atypical role that sediments have played over millions of years in the progressive filling of the basin. These sediments

233. Richard Nehring, *Oil and Gas Resources*, in *THE GEOLOGY OF NORTH AMERICA*, VOL. J: THE GULF OF MEXICO BASIN 446 (Amos Salvador, ed., 1991).

234. *Id.* These are the latest figures available.

235. *See* Buffer, *supra* note 7, at 355 (Figure 2).

236. *Id.* at 377 (Figure 21, A & B).

have gradually covered the Gulf's submarine topography, from continental shelves and slopes to the abyssal gulf, and have concentrated in the deepest and central part of the Gulf due to gravitational force.

This extensive sedimentation has resulted from the progressive deposit of hemipelagic sediments and turbidities by the major ancestral rivers discharging into the Gulf of Mexico, particularly the Mississippi and the Rio Grande.²³⁷ This area is geologically known as the "post-mid-Cretaceous section" (post-MCSB) and "in the deep Gulf is up to 5 or 6 km thick under much of the basin."²³⁸ The Gulf of Mexico may be likened to a bowl filled with water and the sediments discharged by certain major rivers into the Gulf for millions of years are like salt pouring into the bowl. The constant "rain of salt" gradually began to climb the bowl's internal walls. Provided the salt flow continues, it will eventually reach the bowl's circular rim. Thus, from the viewpoint of the 1982 Convention, the submarine area of the Gulf of Mexico may be characterized as a vast continental shelf/continental slope area, a submarine area forming a geological continuum.²³⁹

The outer boundary of the continental shelf was extended to the edge of the continental slope to incorporate potential hydrocarbon deposits in the continental rise and place them under the jurisdiction of the coastal state.²⁴⁰ Geological studies of the Gulf of Mexico suggest that this is precisely the case with the U.S. and Mexico. These technical studies are indicative of the

237. *Id.* at 376.

238. *Id.* Recently, the post-MCSB was redefined and the section subdivided into the following five major seismic units, from oldest to youngest: 1) Campeche; 2) Lower Mexican Ridges; 3) Upper Mexican Ridges; 4) Cinco de Mayo; and 5) Sigsbee. These units "have been mapped throughout the deep central basin [and] . . . maps of each unit document the progressive filling of the basin." *Id.*

239. However, with regard to the Central Gulf of Mexico:

Studies need to be made comparing Cenozoic sedimentation in the deep Gulf with that of the surrounding margins More deep well control in the deep Gulf is needed, as well as long regional, deep penetration seismic lines from the shelf to the deep basin, before a complete picture of the Cenozoic evolution of the entire central Gulf of Mexico basin can be developed. A few industry test wells have now been drilled on the upper Mississippi Fan, but information from these wells is still proprietary.

Id. at 379.

240. See John R. Stevenson and Bernard H. Oxman, *The Future of the United Nations Convention on the Law of the Sea*, 88 AM. J. INT'L L. 488 (1994).

considerable progress recently made with respect to the origin, composition, and geological setting of the deep Gulf of Mexico basin and its adjacent margins. Current geological surveys and technical studies demonstrate scientifically that this basin is indeed a unique geological continuum.²⁴¹

With conclusive proof of this geological phenomenon, the submarine area in the central part of the Gulf would be legally defined as part of the "continental shelf" rather than as a portion of the Area. While any appropriation of the Area is illegal as a violation of international law,²⁴² the appropriation of the continental shelf is a permissible and legitimate exercise of sovereign power.²⁴³ Furthermore, proof of this geological phenomenon would not only conform with oceanic law policies espoused by Mexico and the U.S. in recent years,²⁴⁴ but would also comply with their domestic legislation.²⁴⁵ The U.S. and Mexico agree that the 1982 Convention codified well-recognized oceanic law principles, including those relative to the continental shelf and the definition of its outer boundaries. This question is thus separate from, and should not be confused with, the respective positions that both countries have until now maintained toward Part XI of the 1982 Convention.

Since geological studies support the thesis that the continental margins of the U.S. and Mexico form a geological continu-

241. See Boffler, *supra* note 7, at 355.

242. 1982 Convention, *supra* note 11, art. 137, ¶ 1, provides:

No State shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources, nor shall any State or natural or juridical person appropriate any part thereof. No such claim or exercise of sovereignty or sovereign rights nor such appropriation shall be recognized. (emphasis added).

243. *Id.* art. 77, ¶ 1. See also art. 2, ¶ 1, of the 1958 Geneva Convention on the Continental Shelf; North Sea Continental Shelf Cases (F.R.G. v. Den.) (F.R.G. v. Neth.), 1969 I.C.J. 3.

244. Until recently, the objections made by the U.S. to Part XI of the 1982 Convention posed the most serious difficulties for the U.S. and Mexico in reaching an understanding.

245. Specifically, Article 62 of the FOA provides that the "Mexican continental shelf and insular shelves comprise the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its national [submerged] territory to the outer boundary of the continental margin" FOA, *supra* note 9, art. 62 (translation by author) (emphasis added). See also Submerged Lands Act, 43 U.S.C.A. §§ 1301-15 (West 1953); Outer Continental Shelf Lands Act, 43 U.S.C.A. §§ 1331-46 (West 1953); Deep Seabed Hard Minerals Resources Act, 30 U.S.C.A. §§ 1401-73 (West 1988 & Supp. IV 1992).

um, both nations should agree to delimit the continental shelf in the central part of the Gulf of Mexico, pursuant to the 1982 Convention. In particular, those provisions include the method of demarcation of the outer limits of the continental shelf where it extends beyond 200 nautical miles,²⁴⁶ and the role of the Commission on the Limits on the Continental Shelf.²⁴⁷ Attention should also be given to the eventual payments and contributions in kind, if any, that the U.S. and Mexico may have to make to the International Seabed Authority in order to exploit non-living resources of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.²⁴⁸

B. Maritime Delimitation in the Pacific Ocean

Since 1970 Mexico and the U.S. have established by treaty²⁴⁹ maritime boundaries out to twelve nautical miles in the Pacific Ocean and Gulf of Mexico. These boundaries coincide with Mexico's adoption of a twelve nautical mile territorial sea in late 1969.²⁵⁰ The methodology applied by the 1969 agreement was again followed in 1976 when the establishment of 200 nautical mile zones required a precise maritime delimitation between these two countries.²⁵¹

The lateral maritime boundary in the Pacific Ocean, from twelve nautical miles out to 200 nautical miles between Mexico and the U.S., is shaped as a "broken" international line formed by four segments (See Map B). This segmentation is the result of an attempt to give full effect to the U.S. islands of San Clemente, San Nicolas, and Santa Cruz,²⁵² located north of the

246. 1982 Convention, *supra* note 11, art. 76, ¶ 7.

247. *Id.* art. 76, ¶ 8. See also Annex II of the 1982 Convention, *supra* note 11.

248. 1982 Convention, *supra* note 11, art. 82, ¶ 1.

249. See Treaty to Resolve Pending Boundary Differences and Maintain the Rio Grande and Colorado River as the International Boundary between the United States and Mexico, *supra* note 188.

250. See Decreto of Dec. 26, 1969, *supra* note 78 and accompanying text.

251. See *Hearings*, *supra* note 186, at 6.

252. For information on these islands, see JORGE A. VARGAS, *EL ARCHIPÉLAGO DEL NORTE, TERRITORIO DE MÉXICO O DE ESTADOS UNIDOS?* 17-31, 163-165 (1993). An abbreviated version of this book was published as an article. Jorge A. Vargas, *California's Offshore Islands: Is the "Northern Archipelago" a Subject for International Law or Political Rhetoric?*, 12 *LOY. L.A. INT'L & COMP. L.J.* 687 (1990).

boundary, and the Mexican Isla de Guadalupe, to the south. At a U.S. Senate hearing on the 1978 Treaty, the Deputy Legal Advisor of the U.S. Department of State emphasized the substantial benefits the use of islands had given the U.S.:

In the Pacific, two islands, San Clemente and San Nicolás, are used as basepoints and they bring under U.S. jurisdiction about 18,000 square miles of area, which includes four banks of fisheries importance: Tanner Bank, Cortez Bank, the 40-Mile Bank, and the 60-Mile Bank. In addition to fisheries interests, the Pacific area also has hydrocarbon potential.²⁵³

With respect to the oil and gas potential of this area, a 1981 study by the U.S. Geological Survey reports that "favorable conditions exist"²⁵⁴ for the discovery of crude oil and natural gas resources in a submarine area that may be bisected by the U.S.-Mexico maritime boundary. According to this report, "estimates of undiscovered in-place resources range from 0 to 1.78 billion barrels of oil (BBO) and from 0 to 2.86 trillion cubic feet (TCF) of gas."²⁵⁵ Prepared by the U.S. Geological Survey at the request of the U.S. Senate, this report shows that the "total study area" of the so-called "Southern California Borderland" (See Map C) 1), covered approximately 7500 square miles, 2) contained an "estimated total sediment volume" of 2347 square miles, and 3) had "water depths" ranging from a minimum of 295 feet at Sixty Mile Bank to a maximum of more than 12,000 feet in the Baja California Seamount Province.²⁵⁶ The report concludes with this assessment:

Exploration and production technology is not presently available to exploit any of the estimated petroleum resources in deep water in the greater part of the Southern California

253. See *Hearings*, *supra* note 186, at 7. See also the statements of the President of the Tuna Research Foundation and the American Tunaboat Association, describing the significance of these U.S. islands as "very important fishing grounds for the U.S. fleet" for species such as albacore, bluefin tuna, jack mackerel, rockfish, striped marlin, swordfish, abalone, Northern anchovy, and pelagic red crab, with an estimated commercial value of some \$15 million dollars per year. *Id.* at 54.

254. *Geologic Framework, Petroleum Potential, Petroleum Resource Estimates, Environmental Hazards, and Deep-Water Drilling Technology of the Marine Boundary Region, Offshore Southern California Borderland*, Geological Survey, U.S. Department of the Interior, OPEN FILE REP. 81-264, at 1 (1981).

255. *Id.*

256. *Id.*

Borderland study area. We expect that by the year 2000, the methods and equipment required for drilling and producing in water as deep as 10,000 ft. (3,048 m.) will be available.²⁵⁷

The vast submarine area that is the object of this technical report is located, almost in its entirety, within Mexico's EEZ jurisdiction.

IV. CONCLUSION

Mexico is a luminary in the constellation of States that have consistently advocated the progressive development, codification, and strengthening of the international law of the sea. Its direct involvement in this discipline can be traced back to the First and Second Geneva Conferences in 1958 and 1960 and to the numerous diplomatic fori that proliferated in Latin America and throughout the world in the wake of UNCLOS III.

Mexico's contributions to the law of the sea, as part of the valuable contributions made by other Latin American nations to this vibrant area of international law, are well recognized. The development and definition of the EEZ, the "common heritage of humankind," the protection of the marine environment, and the principle of consent as a central aspect of the legal regime applicable to the conduct of marine research might not have their present legal contours without the active and constructive participation of a number of developing nations, including Mexico. Mexico's FOA constitutes a symmetrical legal adaptation, on the domestic level, of the spirit and letter of the 1982 United Nations Convention on the Law of the Sea. For this reason, the FOA may be characterized as model legislation by virtue of both its content and legislative technique.

Boundary issues have been a sensitive subject throughout the history of diplomatic relations between Mexico and the U.S., dating back to the Treaty of Guadalupe Hidalgo of 1848. While Mexico and the U.S. demarcated their land boundaries for 122 years, not until 1970 did both nations address the question of maritime limits. However, the technical expertise developed during this time by the IBWC, created in 1889, proved to be a

257. *Id.* at 4.

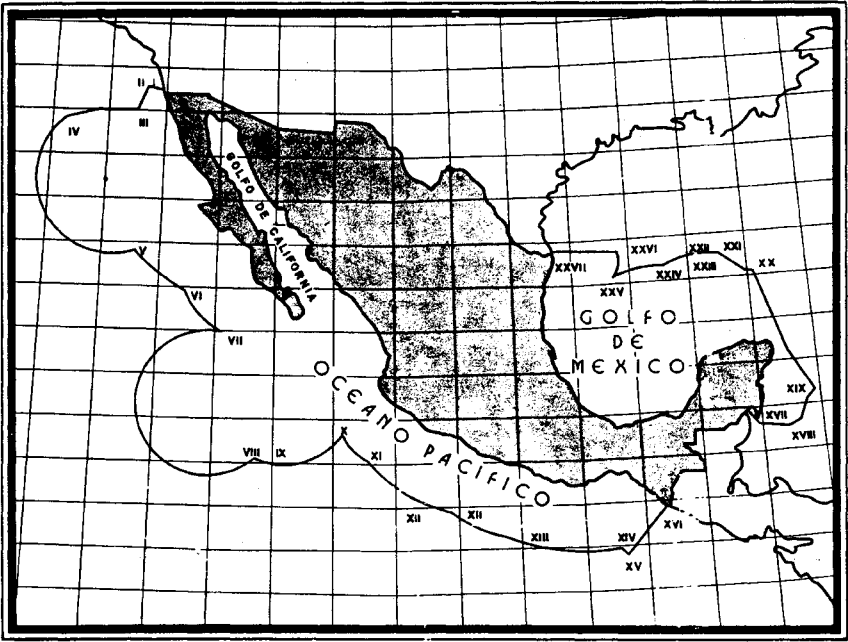
valuable and indispensable tool for solving demarcation questions in the ocean realm. Mexico's 1976 proposals for maritime boundaries in the Gulf of Mexico and Pacific Ocean were sound, as indicated by the U.S. and Mexican move to adopt 200 nautical mile zones offshore their respective coastlines.

After careful examination of the maritime boundaries agreed to by both nations in 1976 and then reproduced in the Treaty of 1978, the logical conclusion is that the boundaries are both legally and technically valid. Acknowledgment of this by the U.S. Senate should undoubtedly improve bilateral relations between the U.S. and its southern neighbor. Coastal states around the globe, particularly Canada, are following the final outcome of this unnecessary impasse with great interest.

The eventual formalization of the U.S.-Mexico maritime boundaries, as contained in the 1978 Treaty, will offer the unique opportunity to include in a formal instrument the delimitation of the continental shelf in the central portion of the Gulf of Mexico and Pacific Ocean. By establishing this submarine demarcation in the Pacific Ocean, and more importantly in the deepest part of the Gulf upon completion of bi-national geological studies, all of the boundaries between both countries in the air, land, and sea will be complete. The successful conclusion of a comprehensive maritime boundary treaty will bring to a close an important chapter in the complicated boundary relations between these two nations.

V. MAPS

Map A



Map B

