

Regionalism, Fisheries, and Environmental Challenges in the Pacific

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I. INTRODUCTION

The Pacific, the world's largest ocean, contains many of the world's smallest countries. Most of these isolated islands were under colonial domination from the mid-19th century (or earlier) until about the 1970s, when they became independent. New Zealand (Aotearoa) and Australia participate in many Pacific regional organizations and activities. They are viewed as partners but play separate and different, while still important, roles because of their larger size and differences in culture and history.

Regionalism in the Pacific is made complex, not only because of vast geography and cultural diversity, but also because a number of the Pacific Islands are still non-self-governing. For instance, American Samoa, the Commonwealth of the Northern Mariana Islands, and Guam remain under the sovereignty of the United States.¹ American Samoa and Guam are "unincorporated territories" without an indigenously-created governing document and without the ability to make final decisions for themselves or to participate effectively in decisions reached in Washington (*i.e.*, their residents cannot vote for voting-members of Congress or for the President). The Commonwealth of the Northern Marianas has a "Covenant to Establish a Commonwealth of the Northern Mariana Islands in Political Union with the United States of America,"² which establishes

1. See generally Jon M. Van Dyke, *The Evolving Legal Relationships between the United States and Its Affiliated U.S.-Flag Islands*, 14 U. HAW. L. REV. 445 (1992).

2. Covenant to Establish a Commonwealth of the Northern Mariana Islands in Political Union with the United States of America, set out under 48 U.S.C. note § 1801 (West 1983), reprinted in 15 I.L.M. 651 (1976).

its relationship with the United States; but it also has no voting representation in Washington, and the extent to which it has any real autonomy from federal oversight is disputed and unresolved. The status of each of these island communities is thus unique under United States and international law, but alike in the sense that they both have neither voting representation in Washington nor effective control over their ocean resources. Recent amendments to the Magnuson Act permit these island communities to retain the revenues from their ocean resources, but the legislation says that they can use these revenues only for the purposes of managing the resources and not for any other purposes.

French Polynesia, Wallis and Futuna, and New Caledonia are overseas territories of France. They have voting representation in the French Parliament and limited self-government, but decisions regarding foreign relations and ocean resources are made in Paris. Because these island communities are generally not allowed to take seats at regional meetings on their own, they enter as part of the delegations of the United States or France or as observers or are excluded altogether. Tiny Pitcairn, where the descendants of the *Bounty* mutiny still live, is controlled by the United Kingdom. Tokelau has its own unique status—it is still under the direct sovereignty of New Zealand.

To add further complications and confusions, the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau are freely associated states with the United States, and the Cook Islands and Niue (population about 2,100) are freely associated states with New Zealand. These island communities are viewed as essentially independent, with the right to conduct their own foreign affairs. They belong to the United Nations and are able to participate in regional organizations in their own right, but they still maintain close links with their larger partner countries.

The regional organizations of this region used to be titled "South Pacific," but today the term "Pacific" is increasingly used. "Pacific" better characterizes the region because the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau (all situated north of the equator) have become active members of these organizations since they emerged from their colonial status in the late 1980s and early 1990s and because Guam and the Commonwealth of the Northern Mariana Islands also participate in some of them.

Hawaii is generally not involved in the regional organizations of the Pacific because, as one of the fifty states, it is an integral part of the

United States and is thus viewed by the rest of the Pacific, perhaps with some suspicion, as separate and distinct. But Hawaii is frequently used as a convenient meeting spot. The University of Hawaii has a Center for Pacific Islands Studies and the East-West Center coordinates research projects aimed at the concerns of the Pacific through its Pacific Islands Development Program. This Program, governed by the leaders of its twenty-two members, has been effective in identifying research priorities and coordinating academic work relevant to the region, focusing particularly on private-sector development and management training.³

Although the regional organizations described below have achieved many goals on behalf of the Pacific Islands, their existence is sometimes viewed as a mixed blessing because they are staffed by some of the most talented individuals in the Pacific, who are thereby not available to assist their own governments more directly.

II. REGIONAL ORGANIZATIONS AND AGREEMENTS IN THE PACIFIC

A. *Secretariat of the Pacific Community (formerly the South Pacific Commission)*

The South Pacific Commission (SPC) was formed in 1947 by the nations with colonies in the Pacific in order to maintain the stability of the region and assist with education, health, and economic development in their colonies.⁴ Most of the island colonies also became members of the organization, and its meetings have featured a unique mix of representatives from both the metropolitan powers and the islands themselves. In the 1960s, as the movement toward decolonialization picked up momentum, a growing feeling that the colonial nations were interlopers in the area led to a revolution of sorts. The island members worked to change the SPC's form and mission, moving to "replace trusteeship with collegial co-operation . . . and technical expertise with direct financial assistance."⁵ This revolution, as well as the rapid growth of independence in the South Pacific, led to the formation in 1965 of the

3. John Low, *Overview of Ocean and Coastal Issues in the Pacific for the Pacific Island States*, in OCEAN GOVERNANCE AND SUSTAINABLE DEVELOPMENT IN THE PACIFIC REGION 137, 152 (Douglas M. Johnston & Ankana Sirivivatnanon, eds., 2002).

4. See Biliiana Cicin-Sain & Robert W. Knecht, *The Emergence of a Regional Ocean Regime in the South Pacific*, 16 ECOLOGY L. Q. 171, 179 (1989); Jon M. Van Dyke & Susan Heftel, *Tuna Management in the Pacific: An Analysis of the South Pacific Forum Fisheries Agency*, 3 U. HAW. L. REV. 1, 4 n.9 (1981); Martin Tsamenyi, *Maritime Cooperation in the South Pacific: Trends and Opportunities*, in OCEAN GOVERNANCE AND SUSTAINABLE DEVELOPMENT IN THE PACIFIC REGION, *supra* note 3, at 130-31.

5. Cicin-Sain & Knecht, *supra* note 4 (citing Richard Herr, *Regionalism in the South Seas: The Impact of the South Pacific Commission, 1947-1974* (1976) (unpublished dissertation, Duke University)).

first purely indigenous regional organization, the Pacific Island Producers Association (PIPA), followed soon by the South Pacific Forum (discussed *infra*). Today the SPC is no longer viewed as the colonial body it once was. It now has 27 members⁶ (the same as the South Pacific Regional Environmental Programme (SPREP)) and has recently been renamed the Secretariat of the Pacific Community to acknowledge its Northern Pacific members and to move away from the colonialism implied in the word "commission."⁷ This body has concentrated on technical assistance and has focused, for instance, on the development of the tuna industry, providing important data on the development of small-scale coastal fisheries through its tuna tagging projects, and on assisting Pacific Island countries in their efforts to comply with international maritime treaties. Its present objectives are to provide advisory, consultative, and training services to governments on scientific, economic, social, environmental, health, agricultural, rural development, education, demographic, and cultural matters.

B. The Pacific Islands Forum

Largely to counter the SPC's big-power domination, the independent and self-governing island countries in the Pacific created the South Pacific Forum in 1971, which is now called the Pacific Islands Forum. This new organization has had a broad political agenda. Its Secretariat is based in Suva, Fiji, and it acts through an annual meeting attended by the heads of member governments.⁸ The environment has been only one of the many issues it has addressed, but by unifying the South Pacific Island nations, it paved the way for organizations which could address the environmental concerns of the entire region. Each newly independent nation has been invited to join the Forum, and it now contains 16 members: Australia, the Cook Islands, the Federated States of Micronesia,

6. The 27 members are American Samoa, Australia, Cook Islands, Fiji, France, Federated States of Micronesia, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, New Zealand, Northern Marianas, Palau, Papua New Guinea, Pitcairn, Samoa, Solomon Islands, United Kingdom, United States, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna. See Secretariat of the Pacific Community, Members of the SPC, at <http://www.spc.org.nc/AC/members.htm> (last visited Aug. 15, 2004).

7. See Secretariat of the Pacific Community, SPC's History, at <http://www.spc.org.nc/AC/history.htm>, (last visited Feb. 20, 2004); *Flags of the World*, PACIFIC COMMUNITY, available at <http://www.crwflags.com/fotw/flags/spc.html> (last visited Feb. 20, 2004).

8. The Secretariat was originally called the South Pacific Bureau for Economic Cooperation (SPEC), but now is called the Pacific Islands Forum Secretariat.

Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa (formerly "Western Samoa"), Solomon Islands, Tonga, Tuvalu, and Vanuatu. The Forum has created the important Forum Fisheries Agency, provided the venue to negotiate the South Pacific Nuclear Free Zone Treaty (SPNFZ), assisted with the development of the SPREP Treaty, promoted the Ocean Resources Management Training Program,⁹ assisted in the development of the 1995 Treaty of Waigani on the movements of hazardous and radioactive wastes, and issued important statements drawing attention to the inadequacies of the international regime governing the shipment of ultrahazardous radioactive cargoes by sea (discussed below). "The Forum Secretariat also provides policy advice to member countries on matters related to marine resources and international trade in such resources."¹⁰

C. The Convention on the Conservation of Nature in the South Pacific

The Convention on the Conservation of Nature in the South Pacific was adopted in Apia, Samoa on June 12, 1976, and came into force in the 1990s (and is sometimes called the Apia Convention). Its purpose was to take action for the conservation, utilization, creation, and development of natural resources of the region through careful planning and management. In particular, the parties are encouraged to create protected areas to safeguard natural ecosystems, superlative scenery, striking geological formations, and areas of historic, cultural, aesthetic, or scientific value.¹¹

D. The South Pacific Nuclear Free Zone Treaty (SPNFZ)

In 1985, under the auspices of the Forum, the nations of the South Pacific adopted the SPNFZ,¹² creating a unique nuclear free zone in the Pacific. The parties to the Treaty agreed to prevent testing, stationing, manufacturing, and dumping of nuclear weapons and devices within their territories and to discourage the use of the region for nuclear testing and waste disposal.¹³ The treaty permits, however, nuclear-powered vessels and ships carrying nuclear weapons to go through the waters

9. Cicin-Sain & Knecht, *supra* note 4, at 180–81, 184–85.

10. Tsamenyi, *supra* note 4, at 131.

11. Florian Gubon, *Steps Taken by South Pacific Island States to Preserve and Protect Ocean Resources for Future Generations*, in *FREEDOM FOR THE SEAS IN THE 21ST CENTURY* [hereinafter *FREEDOM FOR THE SEAS*] 121, 124–25 (Jon M. Van Dyke, Durwood Zaelke, and Grant Hewison, eds., 1993).

12. South Pacific Nuclear Free Zone Treaty, Aug. 6, 1985, 24 I.L.M. 1440. The treaty came into force in 1986 when Australia became the eighth nation to ratify it. See generally INTERNATIONAL NAVIGATION: ROCKS AND SHOALS AHEAD? 352–72 (Jon M. Van Dyke, Lewis M. Alexander, and Joseph K. Morgan, eds., 1988).

13. See Gubon, *supra* note 11, at 125–26.

covered by the treaty without restrictions, leading some to question whether it has any real impact.¹⁴ France continued to test nuclear weapons at Muroroa in French Polynesia for a number of years,¹⁵ but finally ended that program in 1996. The SPNFZ treaty has been important as a symbolic statement issued by the Pacific Island community, and with the end of the Cold War and the easing of international tension, it may be possible to revisit the text and tighten the regime it created.¹⁶

E. The South Pacific Regional Environmental Programme (SPREP)

1. The Early Days

The idea of a South Pacific Regional Environmental Programme was originally conceived at a nature conservation workshop in 1969, which led to a workshop in 1973, which in turn led to a program for the conservation of nature included within the SPC's agenda in 1973.¹⁷ SPREP was formally established in 1982 as a joint initiative of the SPC and the Forum. In 1982, at the Conference on the Human Environment in the South Pacific, the delegates decided to set up SPREP as a separate entity within the SPC. At this conference, SPREP produced its first "Action Plan for Managing the Natural Resources of the South Pacific Region." This document was revised in 1991 and 1997, and it remains the focus of SPREP's activities.

14. See, e.g., MICHAEL HAMEL-GREEN, THE SOUTH PACIFIC NUCLEAR FREE ZONE TREATY: A CRITICAL ASSESSMENT 25-27 (1990); Ramesh Thakur, *The Treaty of Rarotonga: The South Pacific Nuclear-Free Zone*, in NUCLEAR-FREE ZONES 39-43 (David Pitt & Gordon Thompson eds., 1987); Greg Fry, *Regional Arms Control in the South Pacific*, in NUCLEAR-FREE ZONES, *id.* at 46-66; Peter Glebbeek, *The South Pacific Nuclear Free Zone Treaty: A Lost Battle Against the Superpowers?* 10-11 (Institute of Social Studies, The Hague, Netherlands, Working Paper Series No. 73, 1990).

15. See generally Jon M. Van Dyke, Kirk R. Smith, and Suliana Siwatibau, *Nuclear Activities and Pacific Islanders*, 9 ENERGY 733 (1984).

16. Article 5(2) of the treaty allows each nation in the region to decide for itself if it wants to give port access and/or navigation rights to nuclear armed and/or propelled vessels. Glebbeek, *supra* note 14, at 14-15.

17. For more on SPREP's history, see generally, South Pacific Regional Environmental Programme, *What's SPREP*, available at <http://www.sprep.org.ws/sprep/about.htm> (last visited Feb. 20, 2004); see also South Pacific Regional Environmental Programme, *SPREP Annual Report 1995/96* at 9 (1996) [hereinafter *Annual Report 1995/96*]. Arthur Dahl, who had been with the Smithsonian Institute in Washington, D.C., and more recently has worked at the United Nations Environment Programme, is recognized as "SPREP's founding father" and was the sole Regional Ecological Advisor in the SPC in 1974. *V-Files—The Early Days of SPREP: A Roundtable with Arthur, ENV'T NEWSL. (SPREP)*, Dec. 1997, at 9.

During the early 1980s, the United Nations Environment Programme (UNEP) provided funds to permit the Pacific Island countries to negotiate a regional-seas treaty, which was completed in 1986.¹⁸ This treaty is formally titled the "Convention for the Protection of the Natural Resources and Environment of the South Pacific Region,"¹⁹ but it is usually informally called the "SPREP Treaty." The SPREP Treaty is designed to protect both the land and marine resources of the region and contains two protocols—one on waste dumping and another on combating pollution emergencies. The SPREP Treaty was particularly important in that it completely prohibited the dumping of both high- and low-level nuclear waste in the area it covered.²⁰ Although the Mediterranean²¹ and Baltic²² Treaties also contained such prohibition, the Pacific region is much larger and contains sites that were considered by many as appropriate for nuclear waste dumping. Nonetheless, in an important concession that led to the later ban on all nuclear waste dumping in the 1996 Protocol²³ to the 1972 London Convention,²⁴ the United States agreed to the prohibition. The SPREP Treaty also contains valuable provisions requiring environmental assessments with regard to any major activity affecting the SPREP Treaty area.²⁵

After the SPREP Treaty was completed in 1986, bi-annual intergovernmental meetings began to be held, and after 1990, these meetings became annual events. Also in 1986, a five-member steering committee was established, consisting of representatives from Polynesia, Melanesia, Micronesia, the metropolitan powers (France/United Kingdom/USA), and Australia/New Zealand.

In 1991, the leaders of SPREP decided that the organization should become autonomous from SPC and the Forum. Samoa offered to host the organization's headquarters, and SPREP moved to Apia, Samoa in 1992. In 1993, SPREP's members signed the Agreement Establishing the South Pacific Regional Environment Program in order to formalize

18. See Jon M. Van Dyke, *The United States and Japan in Relation to the Resources, the Environment, and the People of the Pacific Island Region*, 16 *ECOLOGY L.Q.* 217, 222–23 (1989).

19. Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Nov. 25, 1986, 26 I.L.M. 38 [hereinafter SPREP Treaty].

20. *Id.* at art. 10(1). Subseabed emplacement was also prohibited. *Id.*

21. Convention for the Protection of the Mediterranean Sea Against Pollution, Feb. 16, 1976, art. 4, 15 I.L.M. 290, 291(1976); *id.* at Annex I(A)(7).

22. Convention on the Protection of the Marine Environment of the Baltic Sea Area, March 22, 1974, art. 9, 13 I.L.M. 544, 549 (1974).

23. See DAVID HUNTER, JAMES SALZMAN, & DURWOOD ZAEKE, *INTERNATIONAL ENVIRONMENTAL LAW AND POLICY* 767–70 (1998).

24. Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Nov. 13, 1972, 11 I.L.M. 1291, 1295 (1972).

25. SPREP Treaty, *supra* note 19, art. 16.

its new status as an independent intergovernmental organization.²⁶ In 1995, Niue became the tenth nation to ratify this Agreement and SPREP officially became autonomous.²⁷

2. SPREP Today

SPREP's 27 members are the same as the members of the Secretariat of the Pacific Community (described above), and they follow the same model which allows all political entities to participate in their activities, whether they are independent or not.²⁸ In its 1997-2000 Action Plan, SPREP described its primary four-year goal as "[t]o build national capacity to protect and improve the environment of the region for the benefit of Pacific island people now and in the future."²⁹ Its five objectives were identified as follows:

1. To protect natural heritage through the conservation and sustainable use of biodiversity;
2. To understand and respond to climate change, particularly through integrated coastal management;
3. To minimize pollution and wastes and improve preparedness for pollution emergencies;
4. To plan, manage, and regulate development in a manner that is environmentally sustainable; and
5. To strengthen environmental education, training, and information systems.³⁰

The staff of SPREP grew from fewer than ten in the 1980s to about thirty-five by the time the organization moved its headquarters to Apia in 1992. Today, SPREP has more than sixty full-time employees, working throughout the Pacific Islands. SPREP's budget, almost entirely based

26. Tsamenyi, *supra* note 4, at 132.

27. For more on the SPREP Treaty, see Mere Pulea, *The Unfinished Agenda for the Pacific to Protect the Ocean Environment*, in FREEDOM FOR THE SEAS, *supra* note 11, at 103, 107-10, and A.V.S. Va'ai, *The Convention for the Protection of the Natural Resources and Environment of the South Pacific Region: Its Strengths and Weaknesses*, in FREEDOM FOR THE SEAS, *id.* at 113-20.

28. *Annual Report 1995/96*, *supra* note 17, at 7. The 27 political units are listed *supra* note 6.

29. South Pacific Regional Environmental Programme, *SPREP Action Plan for Managing the Environment of the South Pacific Region 1997-2000*, at 6 (April 1997) [hereinafter *1997-2000 Action Plan*], available at http://www.sprep.org/ws/publication/pub_list.asp.

30. *Id.*

on contributions, has also been steadily growing. In 1995, the total general budget was about 7.3 million dollars. The largest share came from the United Nations Development Programme (UNDP), which gave 29 percent of the total budget. The second largest donor was the Australian Agency for International Development (AusAID), which contributed 27 percent of SPREP's budget. New Zealand gave eight percent, and a number of other donors gave similar amounts.³¹ Most of SPREP's activities are carried out with the assistance of international or national agencies. Their main current activities include: the South Pacific Biodiversity Conservation Programme, the Pacific Islands Climate Change Assistance Programme, and the Programme of Capacity Building for Sustainable Development in the South Pacific, all funded through the UNDP; the Waste Management Education and Awareness Programme, funded by the European Union; the Climate Change and Environmental Education and Training Programmes, funded through the AusAID; the Atmospheric and Radiation Measurements in the Tropical Western Pacific, funded by the U.S. Department of Energy; and meteorological services, in conjunction with the World Meteorological Organization. SPREP staff members have recently participated in meetings regarding the Biodiversity and Climate Change Conventions.

In 1997, SPREP helped coordinate the adoption of a Strategic Action Programme for International Waters of the Pacific Region to combat the degradation of water quality and associated critical habitats and the unsustainable use of resources.³² For the future, SPREP will be focusing on protecting the biodiversity of the region, preparing for the impacts of climate change, promoting integrated coastal management, preventing pollution, managing wastes (and encouraging the ratification of the Treaty of Waigani,³³ discussed below), preparing for emergencies, and building capacity within each island community so that the environment can be understood and protected.³⁴

3. *South Pacific Applied Geosciences Commission (SOPAC)*

The Pacific Island nations have worked together since 1972 to coordinate research on deep seabed minerals through an organization first called the Committee for Coordination of Joint Prospecting for Mineral Resources

31. *Annual Report 1995/96*, *supra* note 17, at 35. Some donors contribute to particular projects, as well as to the general budget.

32. *Strategic Action Programme for Waters of the Pacific*, SPREP'S ENVIRONMENT ENV'T NEWSL., Dec. 1997, at 10.

33. Tamari'i Tutangata, *Signing on to Watching Waste*, ISLANDS BUSINESS, Sept. 1999, at 48.

34. *1997-2000 Action Plan*, *supra* note 29, at 11, 15, 19, 22, 26.

in the South Pacific Offshore Areas (CCOP/SOPAC). CCOP/SOPAC later became known as the South Pacific Applied Geosciences Commission (SOPAC). This organization, based in Suva, Fiji, coordinates research on the geology of the coastal areas and the sea floor in the Pacific, focusing on mineral, hydrocarbon, geothermal, and wave resources, and helps to build national capacity in the geosciences.³⁵ American Samoa, French Polynesia, and Guam participate in this organization, along with the 16 independent and freely associated countries who are members of the Forum.

4. *Is There a Pacific Marine Policy Regime?*

One knowledgeable commentator has concluded that the Pacific Island region has not yet achieved a marine policy regime because the myriad of organizations have different membership, are all underfunded and dependent on outside donors, and, with the exception of the Forum Secretariat, have only limited capacity to develop policy for the region.³⁶ To address this problem, the South Pacific Organizations Coordinating Committee was created in the early 1990s to reduce overlaps.³⁷ This Committee created a Marine Sector Working Group to develop a regional ocean policy.³⁸ This body will be working with the organizations and conventions listed in the next section to enable the region to develop its resources in a sustainable fashion and increase revenues from its ocean resources.

III. FISHERY ORGANIZATIONS AND AGREEMENTS IN THE PACIFIC

A. *The Forum Fisheries Agency*

In 1979, the 12 countries that were then members of the Forum established the Forum Fisheries Agency (FFA). The FFA sought to coordinate regional fishing concerns in light of the international recognition (in the drafts that eventually became the 1982 United Nations Law of the Sea Convention³⁹) of the 200-nautical-mile exclusive economic zone

35. Tsamenyi, *supra* note 4, at 132.

36. *Id.* at 133–35. This conclusion was reached using the definition of a marine policy regime developed in Mark Valencia, *Regional Maritime Regime Building: Prospects in Northeast and Southeast Asia*, 31 OCEAN DEV. & INT'L L. 231 (2000).

37. Tsamenyi, *supra* note 4, at 136.

38. *Id.* at 137.

39. United Nations Convention on the Law of the Sea, Dec. 10, 1982, U.N. Doc.

(EEZ).⁴⁰ The FFA's members are now the same 16 countries that are members of the Forum, plus Tokelau, which recently joined on its own at the urging of New Zealand. Its main functions are to coordinate and harmonize national policies for fishing in the South Pacific Region, promote sustainable management techniques, and assist in negotiating agreements (through its staff based in Honiara, Solomon Islands) with fishing companies that wish to fish in the EEZs of its members. Other functions include accumulating detailed and up-to-date information on aspects of living marine resources in the region; evaluating and analyzing data to provide clear, timely, concise, complete, and accurate advice to member countries; and developing and maintaining a communications network for the dissemination of information to member countries.⁴¹ The FFA members outlawed fishing without a license within their EEZs zones, but until 1987, the United States refused to recognize these prohibitions with regard to tuna, a migratory fish that moves from zone to zone. Eventually, however, political developments led the United States to agree to meet with leaders of the Pacific Islands and to negotiate a Multilateral Fisheries Treaty.⁴²

This treaty authorized up to fifty U.S. vessels to fish in the EEZs of the 16 countries in the FFA. The treaty was originally to end in 1993, but the parties agreed to extend it for another ten years, granting an additional five licenses to the United States and increasing the price paid to the island countries for the licenses.⁴³ The FFA distributes the licensing funds to the individual states, monitors fishing in the EEZs, and provides observers for the boats.⁴⁴

A/CONF.62/122, *reprinted in* 21 I.L.M. 1261 (1982) [hereinafter *Law of the Sea Convention*].

40. See generally Van Dyke & Heftel, *supra* note 4.

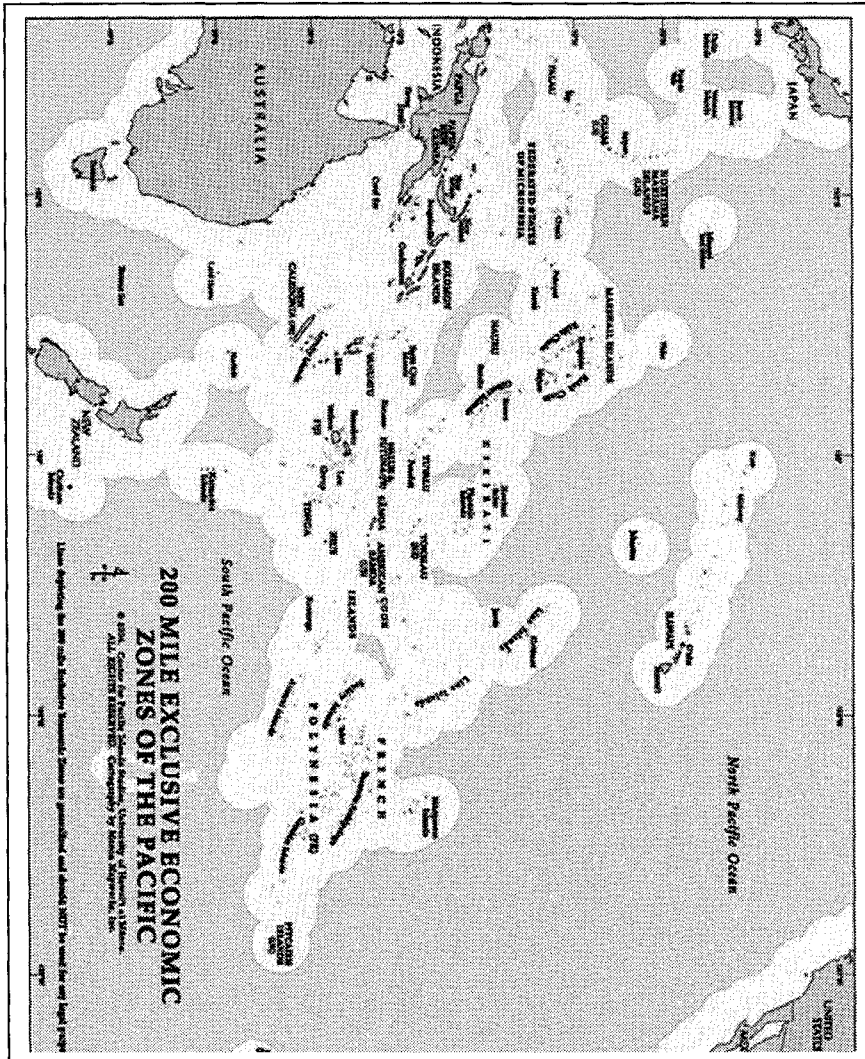
41. Francis Bugotu, Peter Sitan, and Teekabu Tikai, *A Review of the Achievements of the Forum Fisheries Agency in its First Decade of Operations*, in *THE FORUM FISHERIES AGENCY: ACHIEVEMENTS, CHALLENGES AND PROSPECTS* 3, 5 (Richard Herr ed., 1990).

42. Treaty on Fisheries between the Governments of Certain Pacific Island States and the Government of the United States of America, Apr. 2, 1987, T.I.A.S. No. 11100, 26 I.L.M. 1048 [hereinafter *FFA-US Treaty*], available at <http://www.oceanlaw.net/texts/index.htm> (last visited Feb. 20, 2004). Two incidents which led to the U.S. willingness to negotiate were the seizing of a U.S. fishing vessel and the beginning of preliminary negotiations regarding access to fishing between Kiribati and Russia. See generally Jon M. Van Dyke & Carolyn Nicol, *U.S. Tuna Policy: A Reluctant Acceptance of the International Norm*, in *TUNA ISSUES AND PERSPECTIVES IN THE PACIFIC ISLANDS REGION* 105 (David J. Douman ed., 1987).

43. During the first five years of the original Treaty, the FFA countries were paid about \$12 million per year by the U.S. governments and the tuna fishing industry. After the extension, the total payment went up to \$18 million annually. The Treaty also requires the U.S. vessels to fund and carry FFA observers on board to monitor compliance and to do scientific data collection. See *FFA-US Treaty*, *supra* note 42.

44. For additional information about the FFA, see Gracie Fong, *Governance and*

A DEPICTION OF THE EXCLUSIVE ECONOMIC ZONES IN THE PACIFIC,
AS CLAIMED BY ISLAND AND COASTAL COUNTRIES



Stewardship of the Living Resources: The Work of the South Pacific Forum Fisheries Agency, in FREEDOM FOR THE SEAS, supra note 11, at 131–41.

The FFA has worked to restrain illegal fishing by establishing a Regional Register of Foreign Fishing Vessels and a satellite-based vessel monitoring system, and it has sought to maximize the economic benefit flowing to the Pacific Islands from distant-water fishing by establishing Minimum Terms and Conditions of Access for Foreign Fishing Vessels.⁴⁵ More recently, the FFA coordinated the Pacific Islanders' role in the important multilateral negotiations that produced the Honolulu Convention and created a new fisheries organization for the Pacific, combining distant-water fishing countries with the island and coastal countries of the region (discussed below).⁴⁶

B. The Wellington Driftnet Convention

One example of swift collective action taken by Pacific Islanders was their adoption in 1989 of the Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific⁴⁷ (often called the Wellington Convention or the South Pacific Driftnet Convention). This treaty was quickly negotiated because of the concern that large amounts of juvenile albacore tuna were being harvested through the high-seas driftnetting utilized by the Japanese, Koreans, and Taiwanese. The treaty prohibited the landing or transshipment of driftnet catches in the ports of the contracting parties, the importation of any fish or fish product caught with a driftnet, and the possession of any driftnet on board any vessel within the fisheries jurisdiction of the contracting parties.⁴⁸ After adopting their own treaty, the Pacific Islanders worked effectively together to promote the adoption by the United Nations General Assembly in 1989,⁴⁹ and again in 1991,⁵⁰ of resolutions supporting global restrictions and calling upon countries to ban the use of high seas driftnets entirely.

45. Tsamenyi, *supra* note 4, at 131.

46. See *infra* text accompanying notes 57–62.

47. Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific, Nov. 24, 1989 (Wellington), and Oct. 20, 1990 (Noumea), 29 I.L.M. 1449.

48. See generally Gubon, *supra* note 11, at 126–27.

49. Large-Scale Pelagic Driftnet Fishing and Its Impact on the Living Marine Resources of the World's Oceans and Seas, G.A. Res. 44/225, U.N. GAOR, 45th Sess., 85th plen. mtg., Supp. No. 49, U.N.Doc. A/44/746/Add.7 (1989), *adopted by consensus* Dec. 22, 1989, *reprinted in* 20 ENV'T'L POL'Y & L. 36 (1990).

50. G.A. Res. 215, U.N. GAOR, 46th Sess., U.N.Doc. A/RES/46/215 (1991). See generally HUNTER, *supra* note 23, at 721–31.

C. *The 1995 Straddling and Migratory Fish Stocks Agreement*⁵¹

On December 4, 1995, the nations of the world settled on the text of an important document with the cumbersome title of "Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks."⁵² The goal of this document was to stop the dramatic overfishing that has decimated the fish stocks in many parts of the world.⁵³ It built on existing provisions in the 1982 United Nations Law of the Sea Convention,⁵⁴ but it also introduced a number of new strategies that will require the fishing industry to change its mode of operation in significant ways.

Prominent among these new requirements is precaution. Article 5(c) lists the "precautionary approach" among the principles that govern conservation and management of shared fish stocks, and Article 6 elaborates on this requirement in some detail, focusing on data collection and monitoring. Then, in Annex II, the Agreement identifies a specific procedure that must be used to control exploitation and monitor the effects of the management plan. For each harvested species, a "conservation" or "limit" reference point as well as a "management" or "target" reference point must be determined. If stock populations go below the agreed-upon conservation/limit reference point, then "conservation and management

51. This section is adapted and updated from Jon M. Van Dyke, *Sharing Ocean Resources—In a Time of Scarcity and Selfishness*, in *THE LAW OF THE SEA: THE COMMON HERITAGE AND EMERGING CHALLENGES* 3, 9–15 (Harry N. Scheiber ed., 2000); see also Jon M. Van Dyke, *The Straddling and Migratory Stocks Agreement and the Pacific*, 11 INT'L J. MARINE & COASTAL L. 406–415 (1996).

52. Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Conference on Straddling Fish Stock and Highly Migratory Fish Stocks, U.N. Doc. A/CONF.164/37, 34 I.L.M. 1542 (1995) [hereinafter 1995 Straddling and Migratory Stocks Agreement].

53. David E. Pitt, *Despite Gaps, Data Leave Little Doubt that Fish Are in Peril*, N.Y. TIMES, Aug. 3, 1993, at C4. See generally FREEDOM FOR THE SEAS, *supra* note 11. Among the stocks that are now seriously depleted are Atlantic halibut, New Zealand orange roughy, bluefin tuna, rockfish, herring, shrimp, sturgeon, oysters, shark, Atlantic and some Pacific Northwest salmon, American shad, Newfoundland cod, and haddock and yellowtail flounder off of New England. *Steps Must Be Taken to Counter Overfishing, U.S. Panel Warns*, HONOLULU STAR-BULL., Oct. 23, 1998, at A19 (quoting from a study led by Stanford biologist Harold Mooney and funded by the National Research Council, an arm of the National Academy of Sciences); Craig S. Smith, *North Sea Cod Crisis Brings Call for Nations to Act*, N.Y. TIMES, Nov. 7, 2002, at A3.

54. Law of the Sea Convention, *supra* note 39, at arts. 56, 61–66, 69–70, 118–20.

action should be initiated to facilitate stock recovery” (Annex II(5)). Overfished stocks must be managed to ensure that they can recover to the level at which they can produce the maximum sustainable yield (Annex II(7)). The continued reference to the maximum-sustainable-yield formula indicates that the Agreement has not broken completely free from the approaches that led to the rapid decline in the world’s fisheries,⁵⁵ but the hope is that the conservation/limit reference points will lead to early warnings of trouble that will be taken more seriously.⁵⁶

D. The Honolulu Convention

The Pacific Island and Pacific Rim nations met every six months for several years in Honolulu in the late 1990s to draft an important new treaty governing the migratory fish stocks of the Pacific Ocean. Formally called “The Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean”⁵⁷ and signed in Honolulu in September 2000, this treaty created

55. Fishing to attain the maximum sustainable yield inevitably means reducing the abundance of a stock, sometimes by one-half or two-thirds. This reduction can threaten the stock in unforeseeable ways and also will have an impact on other species in the ecosystem.

56. One recent report explains the “precautionary approach” in the context of the 1995 *Straddling and Migratory Stocks Agreement*, *supra* note 52, as follows:

The precautionary approach, in summary, embodies six main elements:

- caution (to be applied widely, to protect resources, and preserve the environment); more caution required when uncertainty; absence of adequate information no reason for failing to take measures;
- information and analysis (obtain and share best available information; need to deal with risk and uncertainty);
- reference points (use of limit and target reference points for conservation and management objectives respectively; develop plans as LRPs [limit reference points] are approached or TRPs [target reference points] exceeded);
- non-target species, associated or dependent species and their environment (assess impacts of fishing; ensure conservation of species and protection of habitat);
- new or exploratory fisheries (early adoption of cautious measures or PRPs, remaining in effect until fishery impacts assessed; gradual development; set provisional reference points); and
- natural phenomena (adopt conservation and management measures to ensure fishing does not exacerbate the situation).

Report of the Eleventh Meeting of the Standing Committee on Tuna and Billfish, May 28-June 6, 1998, Honolulu, Hawaii, USA, in Appendix 1 (Record of Discussion of the Workshop on Precautionary Limit Reference Points), at 66; see generally Jon M. Van Dyke, *The Evolution and International Acceptance of the Precautionary Principle*, in BRINGING NEW LAW TO OCEAN WATERS 357-79 (David Caron and Harry Scheiber, eds., 2004).

57. The Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Honolulu, Sept. 4, 2000, available at <http://www.spc.org.nc/coastfish/asides/conventions/> (last visited Feb. 20, 2004); see generally Violanda Botet, *Filling in One of the Last Pieces of the Ocean: Regulating Tuna in the Western and Central Pacific Ocean*, 41 VA. J. INT’L L. 787-813 (2001).

the regional organization anticipated by Article 64 of the 1982 Law of the Sea Convention⁵⁸ and by the 1995 Straddling and Migratory Stocks Agreement.⁵⁹

The Honolulu Convention is breathtakingly innovative in a number of significant respects. It is huge in its geographical scope, covering much of the vast Pacific Ocean and governing territorial seas and exclusive economic zones as well as high seas areas. It creates a Commission with authority to set catch limits and allocate catch quotas to fishing nations both within and outside the exclusive economic zones of coastal and island nations. The Commission can also regulate vessel types, fish size, and gear and establish area and time limitations. Decision-making is by consensus for some issues and by chambered voting on others, with the interests of the distant-water-fishing nations and the island nations both carefully protected. Decisions of the Commission can be reviewed by an arbitral review panel to ensure consistency and protect against discrimination.

This new treaty requires fishing of migratory species in the high seas to be compatible with the regulations that apply within adjacent exclusive economic zones. It relies on the precautionary approach as its basic foundation throughout. It reinforces the importance of the duty to cooperate. It allows Taiwan to participate in decision-making (as "Chinese Taipei"), it allows non-self-governing territories to participate (pursuant to rules to be adopted), and it allows non-governmental organizations to participate in appropriate ways. Compliance will be through flag-state and port-state enforcement, boarding and inspection rights, obligatory transponders on all high-seas fishing vessels, and regional observers on the vessels.

The final negotiating session was held in Honolulu from August 30 to September 5, 2000. A treaty was signed by most of the negotiating parties, but China, France, and Tonga abstained⁶⁰ and Japan and South

58. Law of the Sea Convention, *supra* note 39, at art. 64; see generally Van Dyke & Heftel, *supra* note 4, at 11-17.

59. 1995 Straddling and Migratory Stocks Agreement, *supra* note 52.

60. China abstained because of its concern about Taiwan's classification as a "fishing entity," with some rights to participate separately in decision-making, and France abstained because it wanted the French islands in the Pacific to have separate status in the Commission that is to be established. On the role of Taiwan more generally in regional fishery management organizations, see Yann-huei Song, *The Regional Fishery Management Organizations and Ocean Law: A Perspective from Taiwan*, in BRINGING NEW LAW TO OCEAN WATERS (David D. Caron & Harry N. Scheiber eds., 2004).

Korea refused to sign the agreement.⁶¹ The FFA members worked hard during the three-year negotiating period to ensure that the convention area was as large as possible, that decisions could be made without unanimous agreement, that developing countries would receive financial assistance to carry out their obligations under the treaty, that the treaty could come into force even if the distant-water fishing nations did not ratify it, and that a vessel monitoring system would become mandatory for all vessels. Although not all the FFA positions were achieved to the extent desired,⁶² the final version of the treaty was signed in September 2000 by all the FFA members except Tonga.

IV. HAZARDOUS AND RADIOACTIVE WASTES— THE TREATY OF WAIGANI

The Pacific Island countries adopted the Waigani Convention in September 1995 to regulate the movement of hazardous and radioactive wastes.⁶³ This Convention requires contracting parties to prohibit the import of hazardous and radioactive wastes, and it establishes mandatory notification procedures for transboundary movements of nonradioactive hazardous waste. This treaty came into force on October 21, 2001, when the tenth country ratified it.⁶⁴

V. SEA TRANSPORT OF ULTRAHAZARDOUS RADIOACTIVE MATERIALS⁶⁵

A new threat to the marine environment has been presented by the shipments during the past decade of ultrahazardous cargoes of plutonium,

61. Japan and South Korea stated that they view the treaty as too restrictive of their historic fishing practices in the high seas. These countries have, however, been participating in some of the subsequent meetings and are expected eventually to ratify the Convention.

62. Among the many compromises, for instance, was the decision-making provision, which established two "chambers" consisting of the FFA and the non-FFA members of the Commission and provided that each chamber would need to support a decision by a three-fourths majority, with the proviso that no proposal could be defeated by fewer than three votes in either chamber.

63. Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes Within the South Pacific Region, 2001 Austl. T.S. No. 17, Sept. 16, 1995, available at <http://www.greenyearbook.org/agree/haz-sub/waigani.htm> (last visited Feb. 20, 2004) [hereinafter *Waigani Treaty*]. This treaty is commonly referred to as the Waigani Treaty or Convention because it was opened for signature at the 1995 meeting of the Forum in Waigani, Papua New Guinea. *Id.*

64. *See id.*

65. For a more complete analysis of this issue, see Jon M. Van Dyke, *The Legal Regime Governing Sea Transport of Ultrahazardous Radioactive Materials*, 33 OCEAN DEV. & INT'L L. 77 (2002).

mixed-oxide (MOX) nuclear fuel, and high level radioactive wastes back and forth from Japan to Europe as part of the Japanese nuclear power program.⁶⁶ These shipments have caused enormous concern among the coastal and island nations that could be devastated by an accident or terrorist attack involving their cargoes. A Chilean naval vessel ordered the 1994-95 shipment to exit Chile's EEZ, citing the precautionary principle as a primary reason for banning the British-flag vessel.⁶⁷

Pacific Island nations have vigorously protested these shipments since they began in the early 1990s.⁶⁸ At the meeting of the South Pacific Forum in October 1999, the Pacific Island leaders called specifically for a compensation regime to be established that would indemnify the island communities for any economic losses that their tourism and fishing industries might suffer as a result of an accident "even if there is no actual environmental damage caused."⁶⁹ This communiqué also urged members to work within the International Maritime Organization (IMO) and the International Atomic Energy Agency (IAEA) to develop "a strong regime of prior notification to, and [in] consultation with, coastal states on planned shipments of radioactive materials and MOX fuel

66. See, e.g., Jon M. Van Dyke, *Sea Shipment of Japanese Plutonium under International Law*, 24 OCEAN DEV. & INT'L L. 399 (1993); Jon M. Van Dyke, *Applying the Precautionary Principle to Ocean Shipments of Radioactive Materials*, 27 OCEAN DEV. & INT'L L. 379 (1996); Duncan E.J. Currie & Jon M. Van Dyke, *The Shipment of Ultrahazardous Nuclear Materials in International Law*, 8 REV. EUR. CMTY. & INT'L ENVTL. L. 113 (1999).

67. Radiotelephone conversation (March 22, 1994). See in particular Article 23 of the Law of the Sea Convention, *supra* note 39, requiring "[f]oreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances. . . when exercising the right of innocent passage through the territorial sea [to] carry documents and observe special precautionary measures established for such ships by international agreements." (Emphasis added.) Coastal States have the specific right "to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance." Law of the Sea Convention, *supra* note 39, at art. 234. This provision could strengthen Chile's and Argentina's claim to ban highly radioactive nuclear carriers from their EEZs.

68. See listing of protests in Jon M. Van Dyke, *Applying the Precautionary Principle to Ocean Shipments of Radioactive Materials*, 27 OCEAN DEV. & INT'L L. 379, 386 (1996).

69. *Forum Communiqué*, Thirtieth South Pacific Forum, para. 31 (Oct. 3-5, 1999), available at http://www.forumsec.org.fj/docs/Communique/Forum_Communique.htm (last visited Aug. 15, 2004).

(consistent with security requirements) [and to develop] a regime for the preparation of Environmental Impact Statements and Emergency Response Plans.”⁷⁰ New Zealand has also taken a lead in protesting these shipments, arguing that they should not be permitted through New Zealand’s EEZ because of the “‘precautionary principle’ enshrined in the Rio Declaration” and because “there should be recognition in international law of the right of potentially affected coastal states to prior notification, and, ideally, prior informed consent for shipments of nuclear material.”⁷¹

The countries opposing these shipments argue that passage of such dangerous cargos through coastal EEZs violates the standards found in the Law of the Sea Convention, which require countries to prepare environmental impact statements for matters that may cause substantial pollution, to prepare contingency plans for accidents,⁷² to consult with affected states, and to establish appropriate liability regimes for such hazards. Some of these nations are now thinking of bringing a claim under the Law of the Sea Convention’s dispute-resolution procedures against Japan, the United Kingdom, and France. Such a claim could argue that these nations have violated:

- (A) their duties under Articles 204-06 to prepare and disseminate an environmental impact statement (because “planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment”);
- (B) their duty to consult affected states, including specifically their duty under Article 199 to “jointly develop and promote contingency plans for responding to pollution incidents in the marine environment;”
- (C) their general duty under Articles 192 and 235 to “protect and preserve the marine environment,” including the more specific duty under Article 194(5) “to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life;” and
- (D) their more specific duty under Article 235(3) to create an appropriate liability regime, including the “development of

70. *Id.* at para. 33.

71. Letter from Don McKinnon, New Zealand Minister of Foreign Affairs and Trade, to Michael Szabo (July 7, 1999).

72. The consequences of an accident involving a ship carrying ultrahazardous radioactive materials would be so grave that emergency procedures must be in place to address possible fires, collisions, and sinkings. These procedures must include access to appropriate ports, availability of tugboats and firefighting equipment, and plans for retrieval in the event of a sinking.

criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds.”

A series of meetings have been held involving the shipping nations and the Pacific Island nations regarding the creation of a liability regime, but the sides remain deeply divided on the need for and details of such a regime.⁷³

VI. LOW FREQUENCY ACTIVE SONAR⁷⁴

On July 15, 2002, the U.S. National Marine Fisheries Service (NMFS) exempted the U.S. Navy's Low Frequency Active Sonar (LFAS) program from the requirements of the U.S. Marine Mammal Protection Act after determining that its operation would have a “negligible impact” on any species.⁷⁵ NMFS thus authorized the Navy to use two ships to transmit low frequency active sonar in about seventy-five percent of the world's oceans (exempting the polar extremes). Ten weeks later, in late September 2002, fifteen Cuvier's beaked whales beached on the Canary Islands at the same time the U.S. destroyer *Mahan* was maneuvering in the area with ships from nine other members of the North Atlantic Treaty Organization.⁷⁶ Autopsies of the whales revealed brain damage consistent with an acoustic impact.⁷⁷ This mass stranding followed similar

73. Meetings are sponsored by the Pacific Islands Forum. Five such meetings have been held to date, including the Fifth Meeting on Liability and Compensation for the Transport of Radioactive Materials, held in Nadi, Fiji, June 21–25, 2004.

74. For a more detailed analysis of this issue, see Jon M. Van Dyke, Emily A. Gardner, and Joseph R. Morgan, *Whales, Submarines, and Active Sonar*, 18 OCEAN YEARBOOK 330–63 (2004); see also Jon M. Van Dyke, *More Bad News for the Whales*, 19 NATURAL RESOURCES & ENVIRONMENT 20 (2004).

75. Kenneth R. Weiss, *Sonar Approved Despite Possible Risks to Whales*, HONOLULU ADVERTISER, July 16, 2002; Marc Kaufman, *Navy Cleared to Use a Sonar Despite Fears of Injuring Whales*, WASHINGTON POST, July 16, 2002, available at <http://www.commondreams.org/headlines02/0716-06.htm> (last visited Feb. 20, 2004).

76. Nine Cuvier's beaked whales were found dead on September 24–25, 2002 on the Canary Islands of Fuerteventura and Lanzarote. Six beached whales were pushed back into the sea, and another two were seen floating lifeless in coastal waters. Ships from Belgium, Canada, France, Germany, Greece, Norway, Portugal, Turkey, the United Kingdom, and the United States were conducting a multinational exercise known as Neo Tapon 2002 designed to practice securing the Strait of Gibraltar. The Cuvier's beaked whale is a toothed cetacean that ranges from five to eight meters in length. Jerome Socolovsky, *Investigation Points to NATO Exercise in Mass Whale Beaching* (Oct. 10, 2002), at http://www.enn.com/news/wire-stories/2002/10/10102002/ap_48667.asp (last visited Feb. 20, 2004).

77. *Id.* (quoting a researcher as saying that “the only cause which we cannot rule out . . . is acoustic impact”).

incidents near the Bahamas in March 2000, near Greece in 1996, and in the Canary Islands between 1985 and 1989.

The U.S. Navy's Surveillance Towed Array Sensor System (SURTASS) Low Frequency Active Sonar (LFAS) will employ very loud low-frequency sounds (less than 500 Hz with intensity levels as great as 230 db⁷⁸), posing a significant threat to the safety and welfare of marine mammals and speculatively to other forms of marine life as well. The transmitted sound will be about 215 db at its source, arrayed in a manner to have "an effective source level" of 230-240 db.⁷⁹ According to the Navy's environmental impact statement (EIS), the sound would be at the 180 db level one kilometer from the source, at 173 db two kilometers from the source, about 165 db 75 kilometers from the source, at the 150-160 db level up to 160 kilometers from the source, and some 140 db 640 kilometers from the source vessel.⁸⁰ (Decibel levels are logarithmic in nature, so that a sound of 180 db is ten times as intense as one of 170 db.) The sounds are not transmitted uniformly in all directions from the source, but instead travel in a beam that is about a hundred meters in width.⁸¹ These sounds are the loudest ever put into the world's oceans by humans, with the possible exception of underground explosions. They are designed to travel great distances and are audible by humans 1000 kilometers away without any signal processing.

In late October 2002, federal Magistrate Judge Elizabeth D. LaPorte determined that the Navy's use of low frequency active sonar was likely to violate four federal statutes⁸² and to cause irreparable injury to ocean

78. Although the Navy refuses to release the maximum source level of SURTASS LFA, claiming it to be classified information, reports indicate the maximum source level to be 230 db re 1 uPa. See Alexandros Frantzis, *Does Military Testing Strand Whales?*, NATURE, March 5, 1998, at 29; see also *Quiet Please. Whales Navigating.*, THE ECONOMIST, March 7, 1998, at 85.

79. Because of the way sound is measured and the different speed that sound travels through water, as compared to land, it is estimated that "underwater sound pressure levels numerically are about 61.5 db greater than sound pressure levels in air for an equal intensity." ROBERT C. GISINER, PROCEEDINGS: WORKSHOP ON THE EFFECTS OF ANTHROPOGENIC NOISE IN THE MARINE ENVIRONMENT, 10-12 FEBRUARY 1998 24 (1998). In other words, sound measured at 131 db in water would have the same pressure impact as sound measured at 70 db on land. 60 db on land is the sound generated by freeway traffic. Continuous exposure above 85 db (on land) is likely to degrade the hearing of most humans. "Deafening" noise (on land) begins at 110 db, with 120 db measuring a hard rock band, 130 db being the point at which pain is registered, and 140 db being the point adjacent to a jet engine. The 180 db (in water) figure said by the Navy to be "safe" for cetaceans would thus affect them at about the same extent as human hearing would be affected by standing next to a hard rock band at a rock concert, if we can assume that the hearing system of cetaceans is roughly comparable to ours.

80. *Natural Resources Defense Council v. Evans*, 232 F.Supp.2d 1003, 1033-34 (N.D.Cal. 2002).

81. *Id.* at 1034.

82. The four statutes are the Marine Mammal Protection Act, the National

creatures. She thus issued a preliminary injunction restricting the Navy's actions, but allowed further testing and training of personnel regarding this system.⁸³ The court explained: "It is undisputed that marine mammals, many of whom depend on sensitive hearing for essential activities like finding food and mates and avoiding predators, and some of whom are endangered species, will at a minimum be harassed by the extremely loud and far traveling LFA sonar."⁸⁴ About the same time, another federal judge in Northern California issued a temporary restraining order blocking marine geologists from Columbia University and the Georgia Institute of Technology (funded by the National Science Foundation) from mapping the sub-sea floor of the Gulf of California (within the territorial waters of Mexico) with 220 db sound blasts that had killed at least two beaked whales.⁸⁵

If U.S. judges eventually allow the Navy and other researchers to proceed with this powerful new sonar, this activity is sure to be challenged at the international level. The unusually loud sounds emitted in the LFAS process would certainly be considered "pollution" under Article 1(1)(4) of the Law of the Sea Convention, which is defined as:

Environmental Protection Act, the Endangered Species Act, and the Administrative Procedure Act.

83. *Evans*, *supra* note 80, at 1013.

84. *Id.* at 1053. Although Magistrate Judge LaPorte found that the Navy's activities violated four federal statutes, she accepted the testimony of the NMFS experts regarding the impact of LFAS on marine mammals over the sharply conflicting testimony presented by the Natural Resources Defense Counsel. Judge LaPorte wrote: "The law is clear . . . that when qualified experts on both sides reach carefully reasoned but different conclusions, the Court must defer to the agency's experts" *Id.* at 1017.

Other courts dealing with ocean environmental issues have taken a more skeptical view of the scientific opinions offered by federal agencies. See, e.g., *Natural Resources Defense Counsel v. Daley*, 209 F.3d 747, 755, 754 (D.C. Cir. 2000) (explaining that courts "do not hear cases merely to rubber stamp agency actions" and criticizing the agency's scientific conclusions as ones that could only be correct in "Superman Comics' Bizarro world, where reality is turned upside down"); *Greenpeace v. National Marine Fisheries Service*, 106 F. Supp. 2d 1066 (W.D. Wash. 2000) (treating the views of the two sides' experts as having equal credibility and issued the injunction sought by plaintiffs despite the contrary testimony of the agency's experts).

85. Center for Biological Diversity, *Court Order Blocks Whale Killing in Gulf of California*, Oct. 29, 2002, at <http://www.endangerearth.org/alerts/result.asp?index=1210> (last visited Feb. 20, 2004) (summarizing issuance of temporary restraining order by Magistrate Judge James Larson in the case of *Center for Biological Diversity v. National Science Foundation*, 2002 WL 31548073 (N.D. Cal. 2002)). The sound source at issue here was generated by air guns that release a compressed air bubble that oscillates in the water, creating sound waves that reflect off the sub-surface geologic layers to be recorded by the ship, rather than a sonar system as used by the Navy.

the introduction by man, directly or indirectly, of substances or *energy* into the marine environment, including estuaries, which *results or is likely to result* in such *deleterious effects* as *harm to living resources and marine life*, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities. (Emphasis added).

Sound is a “form of energy manifested by small pressure and/or particle velocity variations in a continuous medium.”⁸⁶ “While the definition [of “pollution” in the Law of the Sea Convention] was . . . not drafted with acoustic pollution in mind, the inclusion of ‘energy’ implies that noise can be a form of marine pollution under the terms of the LOS Convention.”⁸⁷ Although the U.S. Navy did prepare an EIS, the scientific tests it relied upon were woefully inadequate because they did not test the effects above 155 db; even so, these tests demonstrated that LFAS will have significant negative impacts on marine mammals.⁸⁸

VII. SELECTED MARITIME BOUNDARIES IN THE PACIFIC

Because the Pacific is filled with so many countries and affiliated islands, it is inevitable that maritime boundary delimitation would raise some complexities. Many of the maritime boundaries have been resolved by using the equidistance principle, but some remain unresolved. The following examples focus on the maritime boundaries between U.S. Pacific territories and possessions and their neighbors. They illustrate the complexities of maritime boundaries in this region.

A. *United States (American Samoa) and Samoa*⁸⁹

American Samoa and Samoa (formerly called Western Samoa) are separated by a narrow strait 32 nautical miles wide. Samoa has a land area of 1,100 square miles. Its population in 2001 numbered 179,058.⁹⁰ American Samoa encompasses a land area of approximately 77 square

86. W. JOHN RICHARDSON ET AL., MARINE MAMMALS AND NOISE 544 (1995).

87. Harm M. Dotinga & Alex G. Oude Elferink, *Acoustic Pollution in the Oceans: The Search for Legal Standards*, 31 OCEAN DEV. & INT’L L. 151, 158 (2000).

88. See CHRISTOPHER W. CLARK ELLISON ET AL., SURTASS LOW-FREQUENCY SOUND SCIENTIFIC RESEARCH PROGRAM, PHASE I, SPECIES: BLUE AND FIN WHALES, SEPT.–OCT. 1997, at 30–31 fig.28 (Feb. 27, 1998), available at <http://www.surtass-lfa-eis.com/Research/index/htm>; PETER TYACK & CHRISTOPHER CLARK, SURTASS LOW-FREQUENCY SOUND SCIENTIFIC RESEARCH PROGRAM, PHASE II, SPECIES: GRAY WHALES, JANUARY 1998, at 22–25 (June 23, 1998) available at <http://www.surtass-lfa-eis.com/Research/index.htm>.

89. The material in this section is adapted and updated from Sherry Broder & Jon Van Dyke, *Ocean Boundaries in the South Pacific*, 4 U. HAW. L. REV. 1, 50–57 (1982).

90. U.S. Agency Census Bureau, *The World Factbook International Data Base*, available at <http://www.odci.gov/cia/publications/factbook/geos/ws.html> census.gov/ipc/idbsum/wssum.txt (last visited Aug. 20, 2004).

miles⁹¹ and had a population of 67,084 in 2001.⁹² Samoa is thus 14 times as large as American Samoa in land area and has about three times as many residents.

Through a circumstance of geography, American Samoa can potentially claim an exclusive economic zone of 114,000 square nautical miles; if the equidistance approach were applied, Samoa would be entitled to a zone of only 38,100 square nautical miles.⁹³ With Wallis (France) 190 nautical miles to the west, Tafahi (Tonga) 142 nautical miles to the south,⁹⁴ Swains Island (American Samoa) 190 nautical miles to the north, and Tutuila Island (American Samoa) thirty-two nautical miles to the east,⁹⁵ Samoa is blocked in all directions from claiming a full 200-mile exclusive economic zone. Moreover, Tonga's rectangular historic claim⁹⁶ creates a conflict at the south-eastern edge of Samoa's ocean boundary. The situation is thus ripe for application of those equitable principles that would give Samoa a more proportionate share of ocean territory. Negotiations regarding this boundary were held in 2004.

Samoa, which became independent in 1962, consists of two main islands (Savai'i and Upolu) and seven small islands (Apolima, Manono, Fanuatapu, Namua, Nuutele, Nuulua, and Nuusafee).⁹⁷ In 1977, its Legislative Assembly passed the Exclusive Economic Zone Act of 1977,⁹⁸ which established an exclusive economic zone of 200 miles

91. Am. Samoa Development Planning Office, *Economic Development Plan for American Samoa 1979-1984*, at III-5 (1979).

92. U.S. Agency Census Bureau, *supra* note 90. In 1889, Samoa was divided into Western Samoa and American Samoa along 171 degrees west longitude, with Germany acquiring Western Samoa in return for renouncing its claims in Tonga and West Africa to Great Britain. JOHN W. HART ET AL., *HISTORY OF SAMOA* 87 (1971).

93. J.R.V. Prescott, *International Maritime Boundaries in the Southwest Pacific Ocean*, in *THE LAW OF THE SEA AND OCEAN DEVELOPMENT ISSUES IN THE PACIFIC BASIN* 498 (Edward L. Miles & Scott Allen, eds., 1983).

94. *Id.* This distance is measured from Asuisui on Savai'i Island to the nearest point on Tafahi Island.

95. *Id.*

96. See Broder & Van Dyke, *supra* note 89, at 9-15.

97. W. SKINNER, *HANDBOOK OF WESTERN SAMOA* 17 (1925). Savai'i and Upolu comprise most of the land area. Savi'i accounts for 660 square miles, Upolu for 430 square miles. Only Apolina and Manono of the smaller islands are inhabited. The rest are near the fringe reef surrounding Upolu. J. Adren, *The Political Development of Western Samoa from Mandate to Independence* 4-6 (1964) (unpublished Ph.D. thesis, University of Oklahoma) (on file with author).

98. *Reprinted in* Territorial Sea Act of 1971 (Western Samoa), U.N. Doc. ST/LEG/SER. B/18, Supp. 29, at 33 (1976) (text transmitted through the Chargé d'Affaires a.i. of New Zealand to the United Nations in a *note verbale* of July 9, 1974).

measured from the baselines described in the Territorial Seas Act of 1971.⁹⁹ Despite the potential jurisdictional overlaps resulting from this claim, no reservations were immediately raised by Tonga or American Samoa.

American Samoa is an unorganized and unincorporated territory of the United States.¹⁰⁰ The main group contains six islands: Tutuila, Aunu'u, Tau, Ofu, Olosega, and Rose Island. The United States claimed a 200-mile exclusive economic zone around the territory in 1983.¹⁰¹

1. Specific Problem Areas—Rose Island

Rose Island is an atoll approximately eighty miles southeast of Tau Island in the Manua Group of American Samoa.¹⁰² Plant life exists on the atoll, including coconuts planted around 1870 by the German promoters of a fishing station.¹⁰³ It has been uninhabited for most of recorded history, although one writer reported in 1924 that one of the Samoans employed in conjunction with the fishing station remained on the island with his family after the project had been discontinued.¹⁰⁴ Rose, therefore, has only a tenuous claim under Article 121 of the Law of the Sea Convention to be entitled to generate an exclusive economic zone and continental shelf.¹⁰⁵ But it was used as a basepoint in the treaties delimiting the maritime boundary between the United States and the Cook Islands¹⁰⁶ and between the United States and Niue.¹⁰⁷

99. Reprinted in *id.* at 37 (as noted in Robert B. Krueger & Myron H. Nordquist, *The Evolution of the 200-Mile Exclusive Economic Zone: State Practice in the Pacific Basin*, 19 VA. J. INT'L L. 321, 348 (1979)).

100. See generally Van Dyke, *supra* note 1, at 492–94; Stanley Laughlin, *The Application of the Constitution in United States Territories: American Samoa, A Case Study*, 2 U. HAW. L. REV. 337, 361–62 (1981); David A. Tate, *What's Going On in American Samoa?* 79 CASE & COMMENT 26 (1974). Residents of American Samoa are “nationals” of the United States with rights to travel to and from other parts of the American political community. *Id.* at 28–29.

After the 1889 division of the two Samoas, see note 92 *supra*, the American islands were placed under the jurisdiction of the United States Department of the Navy and designated as Tutuila Naval Station. In 1911, “American Samoa” was adopted as the name of the territory. In 1951, the territory’s administration was transferred to the United States Department of the Interior. PACIFIC ISLANDS YEARBOOK 45 (John Carter ed., 14th ed., 1981) [hereinafter PACIFIC ISLANDS Y.B.].

101. Proclamation No. 5030, 3 C.F.R. § 22–23 (1983).

102. JOHN W. COULTER, LAND UTILIZATION IN AMERICAN SAMOA 43 (Kraus Reprint Co., 1941); WILLIAM A. SETCHELL, AMERICAN SAMOA 227 (1924).

103. COULTER, *supra* note 102, at 43; SETCHELL, *supra* note 102, at 247.

104. SETCHELL, *supra* note 102, at 247.

105. See generally Jon M. Van Dyke, Joseph R. Morgan, and Jonathan Gurish, *The Exclusive Economic Zone of the Northwestern Hawaiian Islands: When do Uninhabited Islands Generate an EEZ?*, 25 SAN DIEGO L. REV. 425 (1988).

106. 1 INT’L MARITIME BOUNDARIES 987 (Jonathan I. Charney & Lewis M. Alexander eds., 1993).

2. Specific Problem Areas—Swains Island

Swains Island is a verdant ring of sand and coral, with a land area of about 3.5 square kilometers¹⁰⁸ and a maximum elevation of about six meters. The island is historically and geographically a part of the Tokelau Islands,¹⁰⁹ and many Tokelauans consider the islet to belong to them, even though it was recognized as being under U.S. sovereignty in the maritime boundary treaty between the United States and New Zealand (on behalf of Tokelau).¹¹⁰ Over the years, it has maintained a small population of individuals of Samoan and Tokelauan extraction,¹¹¹ but no one is permanently living on the island at present.¹¹²

Although American Samoa, as an island community, can advance many of the equitable arguments in favor of establishing an archipelagic regime for itself, it cannot qualify as an archipelagic regime drawing archipelagic baselines around all its islands under the provisions of the Law of the Sea Convention.¹¹³ The United States has declared a 200-mile exclusive economic zone around American Samoa and has asserted that an equidistant line should be drawn between each and every islet in

107. U.S. Dept. of State Bureau of Oceans and Int'l Envtl. and Scientific Affairs, *Limits in the Seas No. 119—Maritime Boundary: United States—Niue*, at 2 (July 30, 1997) [hereinafter *Limits in the Seas No. 119*], available at <http://www.lawlfu.edu/library/collection/LimitsinSeas/numerical/php>.

108. *Id.*

109. Tokelau is a territory directly north of the Samoas under New Zealand administration. Shortly after 1841, Tokelau Islanders formed a colony on Swains Island, which was originally included within the Tokelau islands as part of the Union Group and was then known as Olosenga. PAC. ISLANDS Y.B., *supra* note 100, at 55–56. The Union Group was subsequently incorporated into the British colonies of the Gilbert and Ellice Islands in 1916. The island still has a number of Tokelau-style homes. *Id.* at 56; J. GRAY, AMERIKA SAMOA 211 (1960).

110. See Treaty on Delimitation of the Maritime Boundary Between the United States and Tokelau discussed *infra* at notes 118–20. In 1925, Swains Island was annexed by the United States and made an administrative part of American Samoa. H.R.J. Res. 294, 68th Cong., 43 Stat. 1357 (1925).

111. PAC. ISLANDS Y.B., *supra* note 100, at 55.

112. The island has in recent years been owned by the Jennings family, which has historically exploited the atoll for copra, producing up to 200 tons in some earlier years. *Id.* at 56.

113. Articles 46 and 47 of the Law of the Sea Convention, *supra* note 39, permit only “States” to declare themselves to be archipelagoes. Because American Samoa is not independent, it is apparently foreclosed from making such a claim. If independence were declared, however, or if the “State” requirement in the Convention were interpreted to include dependent territories, American Samoa could follow the precedent of Fiji and declare itself to be an archipelago using its main islands as base points, but it would have to exclude Rose and Swains Islands to satisfy the 9-1 water-to-land ratio test in Article 47(1). *Id.*

American Samoa and the opposite islands of other countries, which would permit American Samoa to establish ocean boundaries disproportionate in relation to its neighbors. Swains Island would account for about one-third of the total claim for American Samoa and at the same time would severely restrict the ocean space of Samoa.¹¹⁴

Application of the coastline-proportionality principle, recognized by the International Court of Justice in the *North Sea Case*¹¹⁵ and many subsequent cases, may be appropriate to a delimitation between American Samoa and Samoa. The Court has held that a reasonable degree of proportionality should exist between the extent of the exclusive economic zone and the lengths of the coastlines of the respective nations. If an equidistance line were drawn, Samoa, with a land area more than 14 times that of American Samoa, would be entitled to only a third of the expanse of exclusive economic zone that American Samoa could claim. Coastline-proportionality, as applied in this context, would require giving Samoa a larger exclusive economic zone. The U.S. position, however, has always been that Swains Island should "be given full effect in an equidistant delimitation with neighboring countries."¹¹⁶

B. United States (American Samoa) and Tonga

In 1986, Assistant Legal Adviser for Oceans David A. Colson reported that the United States has informally assumed that the equidistance line is the maritime boundary in this situation as well as in the boundary with Samoa and Niue "without objection from the neighboring countries, but negotiations have not been held to establish the boundaries."¹¹⁷

114. Prescott, *supra* note 93, at 507. Prescott has characterized Western Samoa (now Samoa) as "zone-locked" and "the most unfortunate territory in the region in terms of the area of water and seabed which can be claimed." *Id.* He explained that it would "be surprising if Western Samoa did not develop a sense of injustice" and that "the most obvious claim for an equitable rather than an equidistant boundary would be directed against American Samoa's ownership of Swains Island." *Id.*

115. *North Sea Continental Shelf* (F.R.G. v. Den.; F.R.G. v. Neth.), 1969 I.C.J. 43, 52, 54 (Feb. 20).

116. In a 1986 letter, David A. Colson, U.S. Assistant Legal Adviser for Oceans, explained the U.S. position regarding Swains as follows:

The position was notified to the neighboring governments of Western Samoa and New Zealand on behalf of Tokelau. . . . It has since appeared as the limit of [United States] fishery jurisdiction/EEZ on [United States] nautical charts. As well, the treaty between the United States of America and New Zealand on the Delimitation of the Maritime Boundary Between the United States of America and Tokelau, *done* Dec. 2, 1980, [T.I.A.S. 10775 (entered into force Sept. 3, 1983)], utilizes this approach, albeit the equidistant line is simplified.

Letter from David A. Colson to Jon M. Van Dyke (Oct. 1, 1986).

117. David A. Colson, *The Maritime Boundaries of the United States: Where Are We Now? in THE LAW OF THE SEA: WHAT LIES AHEAD?* 464, 469 (Thomas A. Clingan, Jr. ed., 1988). Prescott, *supra* note 93, at 523, reports that an equidistant

C. United States (American Samoa) and New Zealand (Tokelau)

A treaty resolving disputed claims over islands and delimiting a maritime boundary was reached between the United States and New Zealand on December 2, 1980, which entered into force on September 3, 1983.¹¹⁸ The United States relinquished its claims to the islands of Atafu, Nukunono, and Fakaofu, and New Zealand recognized U.S. jurisdiction over Swains Island¹¹⁹ and drew an equidistance boundary line between these islands, giving full effect to Swains Island.¹²⁰

D. United States (American Samoa) and Niue

Niue consists of a single island, with about half as much land area as Washington, D.C. It is in free association with New Zealand,¹²¹ has a population of about 2,100, and is located south of American Samoa.¹²² A maritime boundary was negotiated in 1997,¹²³ but the U.S. Congress has still not ratified this treaty.¹²⁴ The boundary established by this treaty is based on an equidistant line between Niue's island and the islands of American Samoa, including Rose Island in the East, with each island given full status in relation to each other. The waters in this region are deep, no resource issue was considered relevant, and no special circumstances of any sort were identified by either party.¹²⁵

maritime boundary between American Samoa and Tonga would extend for 72 nautical miles.

118. Treaty on the Delimitation of the Maritime Boundary, Dec. 2, 1980, U.S.-N.Z., T.I.A.S. No. 10,775, at 2073; 1 INT'L MARITIME BOUNDARIES, *supra* note 106, at 1125.

119. The treaty does not refer directly to Swains Island, but notes in its preamble "that the United States exercises sovereignty over and administers the islands known as American Samoa and that New Zealand has not claimed or administered as part of Tokelau any of the island presently administered by the United States as part of American Samoa." 1 INT'L MARITIME BOUNDARIES, *supra* note 106, at 1131.

120. Mark B. Feldman & David Colson, *The Maritime Boundaries of the United States*, 75 AM. J. INT'L L. 729, 749 (1981); Prescott, *supra* note 93, at 503.

121. The United States confirmed from New Zealand that Niue had the requisite competence to negotiate a maritime boundary treaty on its own behalf. *Limits in the Seas No. 119*, *supra* note 107, at 2.

122. U.S. Central Intelligence Agency, *The World Factbook*, available at <http://www.odci.gov/cia/publications/factbook/geos/ws.html> (last visited Feb. 20, 2004).

123. *Limits in the Seas No. 119*, *supra* note 107.

124. A hearing was scheduled to be held on this treaty by the Senate Foreign Relations Committee on July 18, 2002, but the meeting was cancelled subject to being rescheduled.

125. *Limits in the Seas No. 119*, *supra* note 107.

E. United States (American Samoa) and the Cook Islands

The treaty establishing the 566 nautical-mile-long equidistance all-purpose maritime boundary between American Samoa and the Cook Islands was signed on June 11, 1980 and entered into force on September 8, 1983.¹²⁶ It utilizes twenty-five turning points, recognizes the ability of each island to generate maritime jurisdiction, and recognizes no special or unusual geographical characteristics in the region. "The parties decided that all islands and any associated drying fringing reefs and low-tide elevations, regardless of size, location, and population, were entitled to full effect in determining an equidistant line, and that these features were entitled to generate the full scope of maritime jurisdictions possible."¹²⁷ American Samoa's uninhabited Rose Island and its currently uninhabited Swains Island were used as basepoints in determining the equidistance line.¹²⁸

One significant element of this treaty was the U.S. recognition that the Cook Islands (which is "freely associated" with New Zealand) had the legal competence to enter into a treaty relationship with the United States.¹²⁹ As part of this agreement, the United States recognized Cook Island sovereignty over four islands that the United States had previously claimed—Pukapuka (Danger Island), Manahiki, Rakahanga, and Penrhyn.¹³⁰ These inhabited¹³¹ islands were used as basepoints by the Cook Islands to form the equidistant boundary line.

F. United States (Commonwealth of the Northern Mariana Islands) and Japan

In 1981, the U.S. maritime boundary negotiators noted: "Boundaries remain to be negotiated by the United States with Japan, Kiribati, Tonga, Western Samoa, New Zealand on behalf of Niue, the Marshall Islands, and the Federated States of Micronesia."¹³² During the subsequent two decades, no noticeable progress has been made with regard to the delimitation of any of these boundaries, except for the one with Niue. The lack of urgency was explained in 1981 as follows:

126. Treaty on Friendship and Delimitation of the Maritime Boundary, Sept. 8, 1983, U.S.-Cook Islands, T.I.A.S. No. 10,774,; 1 INT'L MARITIME BOUNDARIES, *supra* note 106, at 985.

127. 1 INT'L MARITIME BOUNDARIES, *supra* note 106, at 987.

128. *Id.*

129. *Id.* at 986.

130. *Id.*

131. Feldman & Colson, *supra* note 120, at 748.

132. *Id.* at 753 n.95.

In none of the outstanding situations would there seem to be any difference in basic approach as to how the boundary should be determined. Moreover, as the regions involved are not areas of particular resource activity, there does not seem to be any urgency to move quickly to establish the boundaries. Therefore, in keeping with past practice, U.S. maritime boundaries in these regions will likely be established as opportunities arise or as interest in doing so is asserted.¹³³

Geographer Robert W. Smith has observed that sometimes “good political relations between neighboring States will result in boundary delimitations being given a low priority” and that if there are “[l]ittle known resources” then there will be “little incentive to focus on the creation of a maritime boundary.”¹³⁴ The “resource activity” in the Pacific has increased dramatically since these words were written, and the fishing for tuna in the Western Pacific is now intense. The United States has utilized *de facto* equidistance lines for purposes of its internal regulation of fishing activities and has published such lines in the Federal Register. The U.S. Western Pacific Regional Fishery Management Council also routinely publishes maps of the U.S. exclusive economic zones utilizing an equidistance line to mark all these unresolved maritime boundaries.¹³⁵

The Commonwealth of the Northern Mariana Islands (CNMI) is a chain of 14 islands that had been part of the Trust Territory of the Pacific Islands but is now formally part of the United States, governed, as explained above, by a 1975 covenant that defines the relationship between the United States and the CNMI.¹³⁶ The CNMI has some limited authority over its offshore resources, but they are primarily managed by the United States, which is also responsible for foreign relations and defense of the CNMI. The northernmost island in the CNMI chain is the uninhabited Farallon de Pajaros, which is two kilometers in diameter and consists completely of an explosive volcano, which has erupted 16 times since 1864, and as recently as 1967.¹³⁷

133. *Id.* at 754.

134. Robert W. Smith, *United States-Canada Maritime Boundaries: A Study of Negotiations, Arbitration, and Management* 4-3-18 (Conference on Marine Policy and the Korea Economy: Issues and Opportunities, Korea Maritime Institute and University of Rhode Island, Oct. 22-24, 1998).

135. See, e.g., W. Pac. Reg'l Fishery Mgmt. Council, PAC. ISLANDS FISHERY NEWS, Spring 2001, at 1.

136. See Van Dyke, *Evolving Legal Relationships*, *supra* note 1, at 480-87.

137. Farallon de Pajaros, Mariana Islands, at http://volcano.und.nodak.edu/vwdocs/volc_images/southeast_asia/mariana/falleron.html (last visited Nov. 13, 2004).

Farallon de Pajaros seems to dramatically fit the definition in Article 121(3) of the Law of the Sea Convention of a “rock” that “cannot sustain human habitation or economic life of [its] own.”¹³⁸ Nonetheless, the United States has assumed that it would be used as a basepoint in delimiting the maritime boundary with Japan, which has isolated tiny islands within 400 nautical miles. In 1986, Colson reported that no difference in approach existed between the United States and Japan, “but no attempt to negotiate an agreement with Japan has yet been made.”¹³⁹ In its September 1994 Letter of Submittal of the Law of the Sea Convention to the President, the Secretary of State included the statement that: “Regarding the United States and Japan, they have recorded an understanding that recognizes that the respective outer limits of their maritime jurisdiction coincide and constitute a line of delimitation.”¹⁴⁰ The parties apparently understand this somewhat enigmatic statement to mean that the equidistance line between their closest islands constitutes the maritime delimitation line between them. The map used by the Western Pacific Regional Fishery Management Council shows an equidistance line between the northernmost island in the Commonwealth of the Northern Mariana Islands and the closest Japanese island to its northwest.¹⁴¹

G. United States (Guam) and the Federated States of Micronesia

Guam, as explained earlier, is an unincorporated territory of the United States,¹⁴² with a land area about three times the size of Washington, D.C. and a current population of about 155,000.¹⁴³ To its south are the islands of Yap and Chuuk States in the Federated States of Micronesia (FSM). The United States has assumed an equidistant line between Guam and the nearest FSM islands, but no formal maritime boundary has been delimited.

138. See generally Van Dyke, Morgan and Gurish, *Northwestern Hawaiian Islands*, *supra* note 105.

139. Colson, *supra* note 117, at 469.

140. Letter from President William Clinton to the United States Senate, Message and Commentary Accompanying the United Nations Convention on the Law of the Sea and the Agreement Relating to the Implementation of the Part XI Upon Their Transmittal to the United States Senate for its Advice and Consent, S. TREATY DOC. No. 103-39, 103rd Cong., 2d Sess. (1994), *reprinted in* 7 GEO. INT’L ENV’T L. REV. 77, 185 (1994).

141. W. Pac. Reg’l Fishery Mgmt. Council, *supra* note 135.

142. See Van Dyke, *Evolving Legal Relationships*, *supra* note 1, at 488-91.

143. *Details about Guam*, at <http://ns.gov.gu/details.html> (last visited Feb. 20, 2004).

H. *United States (Wake) and the Republic of the Marshall Islands*

Wake is a 6.5 square kilometer atoll claimed by the United States in 1899 for a cable station, used extensively in World War II, and subsequently as a stopover for refueling and emergency landings.¹⁴⁴ It never had an indigenous population, but the Republic of the Marshall Islands claims the islet,¹⁴⁵ based on the visits to the islet that its people historically engaged in to gather bird bones. As of October 2001, 123 civilian contract personnel and one U.S. Army civilian were reported to be on the island.¹⁴⁶ The United States claims a 200-nautical-mile exclusive economic zone around the islet, which, if valid, would overlap with the EEZ claimed by the Republic of the Marshall Islands. Because of the dispute over sovereignty of the islet, it may be difficult to address or resolve the maritime boundary.

I. *United States (Baker/Howland) and Kiribati*

Located at 0°, 13' N., 176° 31' W, Baker Island is an arid coral island rising some five to six meters above sea level. The United States sent a group of young men to the islet in 1935 to solidify its claim to ownership, and they built a landing strip, a light house, and some substantial dwellings during that period and World War II.¹⁴⁷ Later, the Coast Guard operated a Long Range Aid to Navigation (LORAN) station, but it is now uninhabited.

Howland is about 90 miles (144 km) north of Baker at 0° 48' N, 176° 38' W. It is 2.5 km by 1 km, with sparse vegetation, supporting a large sea bird population. Guano was mined between 1858 and 1890, and a few U.S. colonists lived on the island between 1935 and the start of World War II to reinforce U.S. claims to possession. An airstrip was built on the island, but it is presently uninhabited, visited periodically by the U.S. Fish and Wildlife Service.

In 1986, Colson said that "Kiribati has been notified of U.S. willingness to negotiate boundaries based upon equidistance. Kiribati expressed some interest, but indicated it would need time to prepare."¹⁴⁸ In the meantime, U.S. maps show an equidistance line between Baker and the

144. U.S. Central Intelligence Agency, *supra* note 122.

145. *Id.*

146. *Id.*

147. See Burl Burlingame, *Boys of the Panala'au*, HONOLULU STAR-BULL., Apr. 28, 2002, at D1.

148. Colson, *supra* note 117, at 469.

closest Kiribati islands.¹⁴⁹ Prescott has reported that an equidistant line between Baker and Kiribati would extend for 322 nautical miles.¹⁵⁰

J. United States (Palmyra) and Kiribati

Palmyra, located at 5° 53' N. and 162° 5' W., consists of some fifty islets with a combined land area of two square miles. Various economic endeavors have been attempted in this rainy atoll. It has maintained a population of several dozen at various times and is a favorite stopping spot for yachts traveling across the Pacific, but it is currently uninhabited. No formal maritime boundary has been negotiated with Kiribati, and U.S. maps show an equidistance line between Palmyra and the Kiribati island of Teraina (Washington).¹⁵¹ Prescott has reported that an equidistant line between Palmyra and Kiribati would extend for 382 nautical miles.¹⁵²

K. United States (Jarvis) and Kiribati

Jarvis has been described as "a small, bleak bowl-shaped place, about 3 [by] 1.5 [kilometers], lying by itself just south of the equator, [0 degrees, 23 min. S. and] 160 deg[rees 0.2 min.] W. long."¹⁵³ U.S. citizens occupied the islet between 1935 and 1942 to fortify the U.S. claim to sovereignty, but it is presently uninhabited. No formal maritime boundary has been negotiated with Kiribati, and U.S. maps show an equidistance line between Jarvis and the adjacent Kiribati islands.¹⁵⁴ Prescott has reported that an equidistant line between Jarvis and Kiribati would extend for 546 nautical miles.¹⁵⁵

VIII. LESSONS LEARNED

It may be hard to translate lessons from the Pacific to other areas because the Pacific is unique in its huge size and its small, scattered population. Most of the Pacific is not industrialized and its pollution problems are modest compared to those of other areas.

But certain lessons are evident. When the benefits have been seen to be high, as with regard to the exploitation of the important fishery resources of the Pacific, a strong and coordinated cooperative body (the FFA) has been established, with a skilled secretariat, and it has taken

149. W. Pac. Reg'l Fishery Mgmt. Council, *supra* note 135.

150. Prescott, *supra* note 93, at 524.

151. W. Pac. Reg'l Fishery Mgmt. Council, *supra* note 135.

152. *Id.*

153. PAC. ISLANDS Y.B., *supra* note 100, at 268.

154. W. Pac. Reg'l Fishery Mgmt Council, *supra* note 135.

155. Prescott, *supra* note 93, at 524.

important initiatives and provided significant benefits for the region. This initiative has been taken, perhaps, because the small islands feel vulnerable when dealing with the industrialized distant-water fishing countries, similar to the vulnerability found among the Caribbean islanders and the small island communities in the Indian Ocean. Although those countries (mostly in the Western Pacific) with greater fishing resources have coordinated their actions to some extent, they have been relatively generous toward those island countries with fewer fish in their waters, and the regime has maintained its cohesion through this sense of cooperation and sharing.

With regard to environmental protection, the countries of the region have adopted sound treaties and established a small secretariat to coordinate environmental activities, but almost all the funding has come from outside the region because most threats to the environment are distant and the priority for environmental protection on a regional level is low. But when they perceive a regional threat, they do act effectively together. Pacific Islanders acted in a coordinated manner to demonstrate their abhorrence of nuclear testing by adopting the 1985 South Pacific Nuclear Free Zone Treaty, and they acted to ban driftnets through the adoption of the 1989 South Pacific Driftnet Convention and several U.N. General Assembly resolutions. More recently, they have expressed their strong concern about the movement of ultrahazardous cargoes through their waters and about global warming and sea-level rise, but they have not yet been effective in stopping these shipments or in forcing an effective global response to global warming.

Pacific Islanders have created functioning regional organizations that have played important roles in allowing the small islands to speak with a more uniform and louder voice when talking to the larger powers. The island communities also have a natural cultural affinity.¹⁵⁶ But political conflicts within some of the countries (particularly Fiji and the Solomon Islands) have caused the regional organizations to be less effective than they might otherwise have been, and the fact that many countries in the region are dependent on outside aid makes them less able to criticize the activities of those countries (like Japan) that give them aid.

The SPREP Secretariat has established a sound agenda, but it has

156. The Pacific Islands have not, however, made any governmental moves to create a regional human rights organization. See Jon M. Van Dyke, *Prospects for the Development of Intergovernmental Human Rights Bodies in Asia and the Pacific*, in *NEW DIRECTIONS IN HUMAN RIGHTS* (Ellen L. Lutz et al. eds., 1989).

avoided the most controversial subjects, focusing on consensus- and capacity-building rather than confrontation. The global-warming/climate-change issue is another one where we see Pacific Islanders working together effectively in international forums to ensure that their voices are heard. Although such coordinated action may not involve a “regime” in the legal or political-science sense, it does indicate recognition of the value of cooperation. To summarize, a good beginning has been made in the Pacific, but how effective these initiatives will be in the long run remains to be determined.