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HOW THE ANTARCTIC SCIENCE, TOURISM, AND CONSERVATION ACT OF 1996 FAILS ANTARCTICA

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I. INTRODUCTION

Few places still exist that mankind has not explored fully. The three most vast areas that are still primarily unexplored are the "global commons," which include the high seas, outer space, and the continent of Antarctica.¹ The global commons are the last to be explored for the very reason that they are so interesting: they have been considered inaccessible until very recently and are basically untouched by mankind.² As the thirst grows for a basic scientific understanding of these areas and their mysteries, the amount of research activity does as well.³ Even the research that occurs in the global commons is unique. Because the areas are so inaccessible, the cost of researching them is phenomenal.⁴ In order to minimize the cost and to spread the opportunities for research among the many interested countries, much of the research must be done through joint international effort.⁵

The international community is also aware that the recent flood of scientific activities in the global commons, whether joint or not, bring with them new environmental concerns for preserving these areas.⁶ Each of the global commons has been the subject of a number of international treaties

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¹ See Barbara Ellen Heim, Note, *Exploring the Last Frontiers for Mineral Resources: A Comparison of the International Law Regarding the Deep Seabed, Outer Space, and Antarctica*, 23 VAND. J. TRANSNAT'L L. 819 (1990). See also LCDR Winthrop, *NEPA in the "Global Commons,"* ARMY LAW., July 1993, at 44, 44 (1993).

² See CHRISTOPHER C. JOYNER & ETHEL R. THEIS, *EAGLE OVER THE ICE* 10-17 (1997).

³ See Francesco Francioni, *Introduction: A Decade of Development in Antarctic International Law*, in INTERNATIONAL LAW FOR ANTARCTICA 1, 1-3 (Francesco Francioni & Tullio Scovazzi eds., 2d ed. 1996).

⁴ See JOYNER & THEIS, *supra* note 2, at 18.

⁵ Norman R. Augustine, *The United States in Antarctica in the 21st Century*, Testimony to the Committee on Science of the U.S. House of Representatives (Mar. 12, 1997), available in 1997 WL 8219969.

⁶ See Jacques-Yves Cousteau & Bertrand Charrier, *Introduction: The Antarctic: A Challenge to Global Environment Policy*, in THE ANTARCTIC ENVIRONMENT AND INTERNATIONAL LAW 5, 6 (Joe Verhoeven et al. eds., 1992).

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that either specifically address environmental issues or that do so
indirectly.⁷

The Antarctic is governed by a series of international agreements referred to collectively as the Antarctic Treaty System.⁸ The most recent treaty concerning Antarctica, the Protocol on Environmental Protection to the Antarctic Treaty,⁹ focuses almost entirely on environmental issues. In order for the Protocol to be ratified, the signing parties must enact their own domestic laws that conform to the Protocol.¹⁰ The United States lingered for a number of years over the terms of a U.S. domestic law to conform to the Protocol.¹¹ The major bone of contention among the various interested parties was whether to apply an existing domestic environmental law, the National Environmental Policy Act (NEPA),¹² as the method for implementing the Protocol.¹³

Congress enacted the final draft of a new domestic law to comply with the Protocol in 1996.¹⁴ The new law is the Antarctic Science, Tourism, and Conservation Act of 1996 (Act or ASTCA).¹⁵ The Act expressly incorporates NEPA.¹⁶ This Act makes great strides in reconciling the language of NEPA with the required language of the Protocol especially in the arena of Environmental Impact Assessments.¹⁷ The Environmental Impact Assessment is an important method for determining the negative effects that an activity will have on a given

⁷ See The Antarctic Treaty, Dec. 1, 1959, 12 U.S.T. 794, T.I.A.S. No. 4780, 402 U.N.T.S. 71 [hereinafter The Antarctic Treaty]. See also United Nations Convention on the Law of the Sea, Dec. 10, 1982, U.N. Doc. A/CONF. 62/122 (1982), reprinted in 21 I.L.M. 1261. See, e.g., Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, opened for signature Dec. 5 1979, art. 11, para. 1, 34 U.N. GAOR, Supp. No. 20, UN Doc. No. A/34/20, reprinted in 1363 U.N.T.S. 3, and in 18 I.L.M. 1434 (entered into force July 11, 1984).

⁸ See Joe Verhoeven, *General Introduction*, in THE ANTARCTIC ENVIRONMENT AND INTERNATIONAL LAW *supra* note 6, at 11, 14.

⁹ The Protocol on Environmental Protection to the Antarctic Treaty, Oct. 4, 1991, 30 I.L.M. 1455 (entered into force Jan. 15, 1998) [hereinafter The Protocol].

¹⁰ See *id.* art. 13, 30 I.L.M. at 1466.

¹¹ See JOYNER & THEIS, *supra* note 2, at 184-86.

¹² National Environmental Policy Act of 1969, § 102, 42 U.S.C. § 4332 (1994).

¹³ See JOYNER & THEIS, *supra* note 2, at 186.

¹⁴ The Antarctic Science, Tourism, and Conservation Act of 1996, 16 U.S.C.A. §§ 2401-2413 (1985 & Supp. 1998).

¹⁵ See *id.*

¹⁶ See *id.* § 2403.

¹⁷ See *id.* See also The Protocol, *supra* note 9, annex I, 30 I.L.M. at 1473-75.

environment, thus allowing the actors to weigh the benefits of their actions versus the possible consequences of the acts.¹⁸

One major section of the Act specifically addresses Environmental Impact Assessments in the context of joint international projects.¹⁹ It provides that if a Party to the Protocol is the major contributor to a project, has signed, ratified, or acceded to the Treaty, and is responsible for the coordination of environmental impact assessment procedures then the U.S. agencies involved are not responsible for preparing an environmental impact assessment.²⁰ The Protocol, on the other hand, simply requires that the involved Parties agree as to who will do the Environmental Impact Assessments.²¹ On this topic, the Protocol mentions "Parties," meaning the initial group of countries that signed the agreement, in addition to those that later ratified or acceded to the Protocol.²² However, the Protocol does not differentiate between the steps Parties should take when engaged in a joint project with a country that has signed the Protocol as opposed to one that has merely acceded.²³

The section of the Act on joint projects has the potential for creating conflict and inefficiency in practice by not providing for the most qualified country to perform the EIA.²⁴ First, more and more countries are joining the Antarctic Treaty System and, thus, the Protocol.²⁵ These countries may have a substantial amount of political influence, but may not be prepared or have a desire to perform an adequate environmental

¹⁸ See 16 U.S.C.A. § 2403; The Protocol, *supra* note 9, annex I, 30 I.L.M. at 1473-75.

¹⁹ See 16 U.S.C.A. § 2403a(b).

²⁰ See *id.*

²¹ See The Protocol, *supra* note 9, art. 8, para. 4, 30 I.L.M. at 1464 ("Where activities are planned jointly by more than one Party, the Parties involved shall nominate one of their number to coordinate the implementation of the environmental impact assessment procedures set out in Annex I.").

²² See, e.g., The Protocol, *supra* note 9, art. 8, 30 I.L.M. at 1464; Telephone Interview with Harlan Cohen, Foreign Affairs Officer, Office of Ocean Affairs, Department of State (Feb. 20, 23, 1998).

²³ See The Protocol, *supra* note 9, art. 8, 30 I.L.M. at 1464.

²⁴ See 16 U.S.C.A. § 2403a(b).

²⁵ See JOYNER & THEIS, *supra* note 2, at 174, 179. Fourteen countries sought admission to the consultative party group of the Antarctic Treaty between 1980 and 1991. See *id.* By 1996, there were 26 consultative parties and 17 acceding states. See *id.* at 175. With regard to the Protocol, all 26 consultative parties and 8 non-consultative parties to the Antarctic Treaty had signed it by 1995. See *id.* at 179.

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assessment.²⁶ Yet, the Act would allow these countries not only to do the
environmental assessment, but also to relieve the United States from that
duty.²⁷ Secondly, it is possible that Parties and ratifying or acceding
countries that are not major contributors would be more qualified to do
adequate environmental assessments than some that are major
contributors, but the Act does not recognize this possibility.²⁸ Allowing
countries that are most qualified to do the impact assessments could be
accomplished without placing the burden on the United States.²⁹

Contribution to joint projects should only have been a major
concern under the Act in situations where the United States is the major
contributor. In such cases, the United States should attempt to be
responsible for the environmental impact assessments.³⁰ However, where

²⁶ See JOYNER & THEIS, *supra* note 2, at 175.

The question remains whether these states can continue to work within
the structure and framework of the treaty system

....

. . . Such [political] motives add an extra dimension to Antarctic
decision making: Obtaining consensus becomes more difficult when
certain members in an organization have little expert knowledge of the
subject and become preoccupied with political or ideological issues.

Id.

²⁷ See 16 U.S.C.A. § 2403a(b). The Act merely states that when:

- (A) the major part of the joint activity is being contributed by a
government or governments other than the United States;
 - (B) one such government is coordinating the implementation of
environmental impact assessment procedures for that activity; and
 - (C) such government has signed, ratified, or acceded to the
Protocol,
- the requirements of subsection (a) [requiring a United States agency to
prepare an Environmental impact assessment] shall not apply with
respect to that activity.

Id.

²⁸ See *id.* That is, a country with the capability to do an Impact Assessment might
receive a negative reaction from the United States even if selected by the other parties,
simply because it is not one of the major contributors. The United States would then
redundantly do its own EIS.

²⁹ The United States is in no way restricted from doing its own analysis as to the
qualification of other countries in charge of Environmental Impact Assessment when it
appears that a country's capabilities are questionable.

³⁰ When the United States is the main contributor to a project, it may want control over
the environmental assessment, so as to insure that its funds are not being used to pollute
the environment. However, not every country may feel that pressure. The newer parties,
especially, may find the support of more experienced parties to be helpful.

the United States is not the main contributor, it would have been better off in its attempt to protect the Antarctic environment had the new Act merely rephrased the Protocol and allowed the involved Parties to choose among themselves.³¹ In applying a law to ratifying or acceding countries, the United States should have applied a similar analysis devoid of any reference to contribution.³²

This Note explores section 2403 of the Antarctic Science, Tourism, and Conservation Act of 1996, which directly relates to joint projects.³³ In addition, this Note attempts to shed light on where the section fails, what alternatives might have been better, and what can still be done to make the section effective. Part II of the Note discusses the historical background of Antarctica and the international treaties that comprise the Antarctic Treaty System. Part III analyzes what international law applies in Antarctica and how the Antarctic Treaty System relates to actual international law on the continent. Part IV discusses the United States domestic laws and their scope in the international arena. This part of the note also analyzes how domestic law interacts with the Protocol³⁴ to actually create international law in Antarctica. Part V evaluates section 2403a(b) of the Act and describes how the Section fits with the new international law of the Protocol. The analysis includes an inquiry into the weaknesses of the section and an attempt to address those weaknesses with suggestions for application by the National Science Foundation. Part VI is a conclusion and a summary of the drawbacks of the Act explored in Part V.

II. BACKGROUND: THE ANTARCTIC TREATY SYSTEM

Antarctica is the coldest, driest environment on earth.³⁵ Almost

³¹ A mere change in the drafting of the law would have given the United States more flexibility in dealing with other countries and making the decision as to which country would be responsible for the EIS, especially considering that the Protocol was drafted to allow selection amongst the parties, without mention of contribution as a factor. *See* The Protocol, *supra* note 9, art. 8, 30 I.L.M. at 1464.

³² Again, the Act should have given the United States the flexibility to work with other countries to develop practical answers without placing monetary limitations on its ability to do so. *See* 16 U.S.C.A. § 2403a(b).

³³ *See id.*

³⁴ *See generally* The Protocol, *supra* note 9.

³⁵ *See* JOYNER & THEIS, *supra* note 2, at 10-11.

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the entire continent is covered by ice that is on average 6,600 feet thick.³⁶
The ice contains about ninety percent of the earth's freshwater supply.³⁷
The frigid and pristine environment allows scientists to conduct important
experiments that affect the rest of the world, including research into global
warming, the ozone layer, the rise of the sea level, and the recovery of
meteorites.³⁸

The United States was the first country to make a landing in
Antarctica in 1821 and was active in exploring the continent for over one
hundred years afterward.³⁹ Later, Antarctica was claimed by seven
countries: the United Kingdom, New Zealand, Australia, France, Norway,
Chile, and Argentina.⁴⁰ Two other countries, the United States and the
Soviet Union (Russia today), also retained the right to enforce a claim
later.⁴¹ By the start of the 1950's, the tension between claimants
concerning their conflicting territorial claims had become heated.⁴²
Scientists were concerned about politics affecting their work on the
continent and took measures to enable research to continue without
political ramifications, including the creation of International Geophysical
Years.⁴³ Their system worked well, providing enough security to the
countries so that they could build work stations and continue research
unhampered.⁴⁴ It also "set the stage" for a more reaching cooperation
among the countries.⁴⁵

The countries followed the lead of the scientists and enacted the
Antarctic Treaty in 1959.⁴⁶ The Treaty was initially signed by twelve
countries, including the seven claimant states and five non-claimant
states.⁴⁷ The five non-claimant states were allowed to become involved in

³⁶ See *id.* at 11.

³⁷ See *id.*

³⁸ See Augustine, *supra* note 5.

³⁹ See JOYNER & THEIS, *supra* note 2, at 21-26.

⁴⁰ See *id.* at 36. All of these claims were made between 1908 and 1943. See *id.*

⁴¹ See *id.*

⁴² See *id.* at 30.

⁴³ See *id.* The International Geophysical Year was "a multinational effort designed to foster scientific cooperation in a number of fields, with Antarctic Research figured prominently among them." See *id.*

⁴⁴ See *id.* at 31.

⁴⁵ See JOYNER & THEIS, *supra* note 2, at 31.

⁴⁶ See *id.* at 30-33. See generally The Antarctic Treaty, *supra* note 7.

⁴⁷ See The Antarctic Treaty, *supra* note 7, 12 U.S.T. at 794, 402 U.N.T.S. at 72. See also Alfred van der Essen, *The Origin of the Antarctic System*, in INTERNATIONAL LAW FOR

the Treaty process because they had engaged in scientific research in Antarctica already or were planning to do so.⁴⁸ As time has progressed, numerous other countries have demonstrated interest in Antarctic research and have acceded to the Treaty. As of 1995, forty-two states were parties to the Treaty.⁴⁹

The Treaty is composed of fourteen articles that each address various issues of concern.⁵⁰ In the first two Articles of the Antarctic Treaty, the continent is dedicated to peaceful purposes and the freedom to conduct scientific research.⁵¹ Article IV was very contentious among the twelve States when the Treaty was written because it effectively “froze” the claims of the countries who had made them.⁵² On the issue of jurisdiction over the actions of observers or scientific personnel, the states were wary.⁵³ They did not want to potentially subject their nationals to foreign courts.⁵⁴ Thus, Article VIII allows that actors for a state are subject only to the jurisdiction of their own courts.⁵⁵ The remaining Articles address other environmental topics and create procedures to implement the Treaty.⁵⁶

ANTARCTICA, *supra* note 3, at 17, 19. The five non-claimant states were the United States, the Soviet Union, Japan, Belgium, and South Africa. *See id.*

⁴⁸ *See van der Essen, supra* note 47, at 19.

⁴⁹ *See id.* at 25.

⁵⁰ *See generally* The Antarctic Treaty, *supra* note 7.

⁵¹ *See id.* arts. I, II, 12 U.S.T. at 795, 402 U.N.T.S. at 72-75.

⁵² “The understanding that all [International Geographical Year] activities would be nonpolitical and that none would serve as the basis for territorial claims clearly influenced the decision of claimant parties to ‘freeze’ their claims to Antarctic territory.” van der Essen, *supra* note 47, at 21. *See also* JOYNER & THEIS, *supra* note 2, at 36 (The Antarctic Treaty “preserves the position of claimants and nonclaimant states, serving the interests of both by banning new claims or expansion of existing ones.”).

⁵³ *See* Jonathan Blum, Comment, *The Deep Freeze: Torts, Choice of Law, and the Antarctic Treaty Regime*, 8 EMORY INT’L L. REV. 667, 674 (1994).

⁵⁴ States were concerned that conceding jurisdiction could weaken territorial claims. *See id.* at 675.

⁵⁵ *See* The Antarctic Treaty, *supra* note 7, art. VIII, para. 1, 12 U.S.T. at 797-98, 402 U.N.T.S. at 78-79; Blum, *supra* note 53, at 675. Article VIII is not without its drawbacks. In cases of jurisdictional disputes between States, the States are left to resolve the disputes on their own. *See* The Antarctic Treaty, *supra* note 7, 12 U.S.T. at 797-98, 402 U.N.T.S. at 78. There is no mechanism to ensure the States will comply with the Article. *See generally* The Antarctic Treaty, *supra* note 7.

⁵⁶ *See* The Antarctic Treaty, *supra* note 7, 12 U.S.T. at 798-800, 402 U.N.T.S. at 78-85; van der Essen, *supra* note 47, at 23. The remaining Articles forbid nuclear testing in Antarctica, require that countries allow inspection of their activities, outline methods for

One of the most important Articles to the Antarctic Treaty was Article IX.⁵⁷ Article IX requires that the original Parties meet periodically to discuss important issues concerning Antarctica as they may arise.⁵⁸ The meetings are called Antarctic Treaty Consultative Meetings (ATCMs).⁵⁹ Activities at these meetings range from the "exchange of views to the negotiation of binding legal instruments."⁶⁰ It is at these meetings that environmental issues are discussed in depth.⁶¹ A number of international treaties have resulted from the discussions at the ATCMs.⁶²

The third meeting of the Parties resulted in the Agreed Measures for the Conservation of Antarctic Flora and Fauna (Agreed Measures).⁶³ However, the entry into force of the Agreed Measures was delayed until 1980 due to dissent over jurisdictional issues.⁶⁴ The Agreed Measures list certain species of animals to be protected and require a permit to kill or capture any native species.⁶⁵ They also restrict importation of foreign plants and animals.⁶⁶ The agreement also allowed areas of Antarctica to be designated as specially protected under the Agreed Measures.⁶⁷ The number of these areas set aside for protection continues to grow.⁶⁸

peaceful settlement of disputes, and also contain a clause that allows accession by other States. See van der Essen, *supra* note 47, at 23-25.

⁵⁷ See The Antarctic Treaty, *supra* note 7, art. IX, 12 U.S.T. at 798, 402 U.N.T.S. at 78-80; van der Essen, *supra* note 47, at 23.

⁵⁸ See The Antarctic Treaty, *supra* note 7, art. IX, para. 1, 12 U.S.T. at 798, 402 U.N.T.S. at 78-80. Article IX states that the Parties shall meet in part: "for the purpose of exchanging information, consulting together on matters of common interest pertaining to Antarctica, and formulating and considering, and recommending to their Governments, measures in furtherance of the principles and objectives of this Treaty . . ." *Id.* art. IX, para. 1. It goes on to state that one of the measures that should be considered at the meetings is the "preservation and conservation of living resources in Antarctica." *Id.* art. IX, para. 1(f).

⁵⁹ See van der Essen, *supra* note 47, at 23.

⁶⁰ JOYNER & THEIS, *supra* note 2, at 41.

⁶¹ See *id.* at 42-43.

⁶² See *id.* at 44.

⁶³ See Agreed Measures for the Conservation of Antarctic Flora and Fauna, June 2-13, 1964, 17 U.S.T. 996, T.I.A.S. No. 6058, *modified in* 24 U.S.T. 1802, T.I.A.S. No. 7692 (1973) [hereinafter Agreed Measures]; van der Essen, *supra* note 47, at 26.

⁶⁴ See van der Essen, *supra* note 47, at 26.

⁶⁵ See Agreed Measures, *supra* note 63, 17 U.S.T. at 997-99.

⁶⁶ See *id.* at 1000.

⁶⁷ See *id.* at 997.

⁶⁸ See, e.g., JOYNER & THEIS, *supra* note 2, at 103-104 (by 1996, at least 23 sites were designated specially protected areas, and 36 Sites of Special Scientific Interest were

At the seventh meeting, the Parties adopted the Convention for the Conservation of Antarctic Seals (Convention).⁶⁹ The Convention applies even to areas outside of the area normally designated as included under the Antarctic Treaty and applies to the high seas.⁷⁰ Rather than forbidding all capturing of seals, the Convention merely states a limit on the number that may be caught annually.⁷¹ The enforcement of the Convention is relegated to the Scientific Community on Antarctic Research (SCAR).⁷² Any party may call meetings in the event SCAR determines that there is a real danger to a species.⁷³ Otherwise, the parties meet every five years.⁷⁴ So far the Convention has been extremely successful in preserving and protecting Antarctic seals.⁷⁵

The Parties reached a third agreement in the form of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR or Convention).⁷⁶ The Convention is based on the "ecosystem approach."⁷⁷ Under the Convention, the harvesting of certain species must be related to the "consequences for other dependent species in the ecosystem."⁷⁸ The Parties also created a permanent Commission to monitor and regulate conservation measures in Antarctica.⁷⁹ The success of this Convention has been questioned, but it appears to be working well and is accepted by countries not party to the Convention.⁸⁰

designated).

⁶⁹ Convention for the Conservation of Antarctic Seals, *adopted* June 1, 1972, 29 U.S.T. 441, T.I.A.S. No. 8826, 1080 U.N.T.S. 175 (entered into force Mar. 11, 1978) [hereinafter Seals Convention]. See JOYNER & THEIS, *supra* note 2, at 104.

⁷⁰ See JOYNER & THEIS, *supra* note 2, at 103-04.

⁷¹ See Seals Convention, *supra* note 69, 29 U.S.T. at 444-45.

⁷² See *id.* at 445-46.

⁷³ See *id.* at 445.

⁷⁴ See *id.* at 446.

⁷⁵ See JOYNER & THEIS, *supra* note 2, at 105 ("The CCAS has been successful in preventing a recurrence of the extermination of some species of Antarctic seals Due largely to the foresight of the [Antarctic Treaty Consultative Parties], scientific research now indicates that Antarctic seals have not been adversely affected by human activities in the Southern Ocean.").

⁷⁶ Convention on the Conservation of Antarctic Marine Living Resources, *done* May 20, 1980, 33 U.S.T. 3476, T.I.A.S. No. 10240, 1329 U.N.T.S. 47 (entered into force Apr. 7, 1982) [hereinafter CCAMLR].

⁷⁷ See JOYNER & THEIS, *supra* note 2, at 106-07.

⁷⁸ See *id.* at 106.

⁷⁹ See CCAMLR, *supra* note 76, 33 U.S.T. at 3482-85, 1329 U.N.T.S. at 51-54.

⁸⁰ "F.M. Auburn, for example, finds that, in theory, the ecosystem may be safeguarded

The focus of the international community shifted more heavily to the environment in the 1980s when discussions concerning the mining of mineral resources in Antarctica began.⁸¹ Other issues, such as tourism, also began to stress the existing regime.⁸² The Consulting Parties drafted and adopted another Convention in Wellington in 1988 to limit mineral exploration and exploitation in Antarctica.⁸³

However, the trend toward even stricter environmental protection of Antarctica continued. One major impetus for the trend was a number of environmental accidents.⁸⁴ In early 1989, three different oil spills were reported off of the coast of Antarctica.⁸⁵ However, these spills were minor when compared to the oil spilled from the *Exxon Valdez* off the coast of Alaska in March of 1989 in which approximately 11 million gallons of crude oil spilled out and killed wildlife along forty-five miles of Alaskan coastline.⁸⁶ These accidents created an increased awareness of the need for environmental protection of the Antarctic area.⁸⁷

A year after the Wellington Convention, both Australia and France refused to sign the accord.⁸⁸ Many countries were interested in pursuing

but practical application will probably not bear out the promise of conservation." JOYNER & THEIS, *supra* note 2, at 108. See also Olav Schram Stokke, *The Effectiveness of CCAMLR*, in GOVERNING THE ANTARCTIC 151 (Olav Schram Stokke & Davor Vidas eds., 1996).

⁸¹ See Francesco Francioni, *The Origin of the Antarctic System*, in INTERNATIONAL LAW FOR ANTARCTICA, *supra* note 3, at 1, 2.

⁸² See Richard A. Herr, *The Regulation of Antarctic Tourism: A Study in Regime Effectiveness* in GOVERNING THE ANTARCTIC, *supra* note 80, at 203, 207. Tourism has been estimated at 60,000 tourists over the last 40 years and the numbers are growing. See UN: *First Committee approves draft text on Antarctica: Part 1*, M2 PRESSWIRE, Nov. 26, 1996, available in 1996 WL 14649740. See also Augustine, *supra* note 5.

⁸³ See Convention on the Regulation of Antarctic Mineral Resources Activities, done June 2, 1988, Doc. AMR/SCM/88/78, reprinted in 27 I.L.M. 859 [hereinafter Minerals Convention].

⁸⁴ See Christopher C. Joyner, *The Effectiveness of CRAMRA*, in GOVERNING THE ANTARCTIC, *supra* note 80, at 152.

⁸⁵ See *id.* An Argentinean supply ship, a British supply ship, and a Peruvian research vessel all were reported as having spilled oil. See *id.* The Argentinean ship spilled 250,000 barrels of diesel fuel into the ocean, while the Peruvian ship leaked only a small amount of oil. See *id.* The British Antarctic Survey denied that any oil spilled from their ship. See *id.*

⁸⁶ See *id.*

⁸⁷ See *id.*

⁸⁸ See JOYNER & THEIS, *supra* note 2, at 108. The Australian government gave as its reason that it would instead pursue a more comprehensive environmental agreement. See

research for energy sources, like oil, for their own national use.⁸⁹ The international community began to strongly oppose the Convention, primarily because it appeared to be ineffective and jeopardized the purity of the Antarctic continent.⁹⁰ The solution to these concerns with environmental issues in the Antarctic came in the form of the Protocol on Environmental Protection to the Antarctic Treaty.⁹¹ As a result of the creation of the Protocol, the Wellington Convention was never enacted.⁹²

The Madrid Protocol, as it came to be known, "extends and improves the effectiveness of the treaty system to preserve the region's environment."⁹³ In making the Protocol, the Parties clearly stated that the agreement does not in any way affect or undermine the existing Treaties present in the Antarctic regime.⁹⁴ Instead, the Protocol reaffirms the designation of Antarctica as a special place that should be reserved for peaceful and scientific activities.⁹⁵ It also "establishes a relatively comprehensive, legally binding regime for ensuring that all activities undertaken in Antarctica are consistent with protection of that environment and the continent's dependent and associated ecosystems."⁹⁶ The Protocol also placed a moratorium on the mining of minerals in Antarctica, unless related to science.⁹⁷ In addition, the Protocol calls for the formation of a Committee on Environmental Protection (CEP) to provide advice to the Parties on various environmental issues.⁹⁸

As part of the binding legal regime, the Protocol specifies methods for performing environmental impact assessments for both government and non-government activities.⁹⁹ Although government and non-

id.

⁸⁹ See *id.* at 108-09.

⁹⁰ See Joyner, *supra* note 84, at 167.

⁹¹ See The Protocol, *supra* note 9. See also Joyner, *supra* note 84, at 165-67.

⁹² See Joyner, *supra* note 84, at 165.

⁹³ JOYNER & THEIS, *supra* note 2, at 110.

⁹⁴ See The Protocol, *supra* note 9, Final Act of the Eleventh Antarctic Treaty Special Consultative Meeting, 30 I.L.M. at 1460.

⁹⁵ See The Protocol, *supra* note 9, pmb., 30 I.L.M. at 1461.

⁹⁶ Joyner, *supra* note 84, at 166. See generally The Protocol, *supra* note 9.

⁹⁷ See JOYNER & THEIS, *supra* note 2, at 110.

⁹⁸ See The Protocol, *supra* note 9, arts. 11, 12, 30 I.L.M. at 1465-66. Some of these environmental issues that CEP will examine include the effectiveness of the Protocol and measures adopted by the Consultative Parties, the implementation of the Environmental Impact Assessments, and ways to minimize environmental impacts on Antarctica. See *id.*

⁹⁹ See *id.* art. 8, 30 I.L.M. at 1464 and annex I, 30 I.L.M. at 1473-76.

government activities are grouped together, the Protocol creates three separate categories of activities for environmental impact assessment analysis.¹⁰⁰ The analysis of an activity is based on its potential impact on the environment.¹⁰¹ The activities are separated into those having *less than* a minor or transitory impact, those that have *no more than* a minor or transitory impact, and those activities having *more than* a minor or transitory impact.¹⁰² In application, if the activities do not comply with the Protocol and are such that the actor must give notice under the Antarctic Treaty, the activities are to be suspended, modified, or canceled.¹⁰³

For the Protocol to enter into force, all of the Parties must ratify it.¹⁰⁴ In order to actually implement the Protocol, the Parties must then enact their own domestic laws.¹⁰⁵ All of the Consultative Parties have now ratified the Protocol.¹⁰⁶ But many have not yet enacted domestic legislation to conform to the Protocol.¹⁰⁷ The Protocol addresses compliance by other States in requiring that Consulting Parties take measures to ensure that other States do not violate the Protocol.¹⁰⁸ Parties are also directed to alert all other Parties when non-Party States have

¹⁰⁰ See *id.* art. 8, 30 I.L.M. at 1464.

¹⁰¹ See *id.*

¹⁰² See *id.*

¹⁰³ See *id.* art. 3, para. 4(b), 30 I.L.M. at 1463. Article VII(5) of the Antarctic Treaty requires that Parties to the Treaty give notice to the other Contracting Parties before:

- (a) all expeditions to and within Antarctica, on the part of its ships or nationals, and all expeditions to Antarctica organized in or proceeding from its territory;
- (b) all stations in Antarctica occupied by its nationals; and
- (c) any military personnel or equipment intended to be introduced by it into Antarctica subject to the conditions prescribed in paragraph 2 of Article I of the present Treaty.

The Antarctic Treaty, *supra* note 7, art. VII(5), 12 U.S.T. at 797, 402 U.N.T.S. at 74-75.

¹⁰⁴ See The Protocol, *supra* note 9, arts. 22, 23, 30 I.L.M. at 1469.

¹⁰⁵ See *id.* art. 13, 30 I.L.M. at 1466.

¹⁰⁶ See *Environmentalists Hail 50-year Ban on Antarctic Mining: Agreement Protects All the Region's Flora, Fauna*, BALT. SUN, Jan. 15, 1998, at 17A, available in 1998 WL 4946702; Telephone Interview with Harlan Cohen, *supra* note 22.

¹⁰⁷ See *US Ratifies Protocol!!!*, The Antarctica Project Newsletter, June 1997, available at <<http://www.asoc.org/currentpress/june1997.htm>> [hereinafter The Antarctica Project Newsletter (June)].

¹⁰⁸ See The Protocol, *supra* note 9, art. 13, para. 2, 30 I.L.M. at 1466 ("Each Party shall exert appropriate efforts . . . to the end that no one engages in any activity contrary to this Protocol.").

violated the terms of the Protocol.¹⁰⁹

Thus, a hodgepodge of international agreements govern the activities of States active in the Antarctic region. These include the Antarctic Treaty itself, the various Conventions, and the recommendations and discussions that occur at the Consultative Meetings.¹¹⁰ Collectively, they are normally referred to as the Antarctic "system."¹¹¹ The system is different now than was envisioned when it began in 1959.¹¹² It has adapted to meet the changing needs and interests of the international community and will continue to adapt as new issues arise.¹¹³

III. INTERNATIONAL LAW AFFECTING ANTARCTICA

General international law finds its source either in custom or in international treaties.¹¹⁴ Law that results from custom is based on the repeated practice of a set of principles by the states.¹¹⁵ The practice is typically some form of official government conduct.¹¹⁶ The conduct may be anything from official statements, to government decisions, to inaction.¹¹⁷ Not every state must believe that the law is valid, but a majority of countries must recognize it in order to make it binding.¹¹⁸ When law is based on treaties, a more clearly defined version of law exists.¹¹⁹ The goal of having treaties is to "eliminate ambiguities, minimize confusion, and . . . clarify the future obligations of parties."¹²⁰

General international laws and agreements should apply to

¹⁰⁹ See *id.* art. 13, para. 4 ("Each Party shall draw the attention of all other Parties to any activity which in its opinion affects the implementation of the objectives and principles of this Protocol.").

¹¹⁰ See van der Essen, *supra* note 47, at 29.

¹¹¹ See Verhoeven, *supra* note 8, at 14.

¹¹² See van der Essen, *supra* note 47, at 29.

¹¹³ See *id.*

¹¹⁴ See David Everett Marko, *A Kinder, Gentler Moon Treaty: A Critical Review of the Current Moon Treaty and a Proposed Alternative*, 8 J. NAT. RESOURCES & ENVTL. L. 293, 294-95 (1993).

¹¹⁵ See *id.*

¹¹⁶ See *id.*

¹¹⁷ See *id.* at 294.

¹¹⁸ See *id.* at 294-95.

¹¹⁹ See *id.* at 295.

¹²⁰ *Id.*

Antarctica as elsewhere.¹²¹ However, issues arise for international law that are based on territorial sovereignty.¹²² Assuming that no country can claim territorial sovereignty over Antarctica, then the rules that normally require countries to have territorial sovereignty cannot apply.¹²³ If these laws cannot apply, and it is increasingly clear that this is true, then Antarctica should be treated as falling under the international law that applies to the *res comunis* or the global commons.¹²⁴ In these areas "the international community has relied upon norms of conduct that permit open access and use by all States subject to the rule of reason."¹²⁵ In effect, the gaps left by general international agreements and laws are filled by custom.¹²⁶ Accordingly, the norms of conduct or custom that would form the basis for international law in Antarctica would also be based upon a rule of reason in the absence of other international law.¹²⁷ This would mean that countries could perform activities in Antarctica as long as those activities do not have negative ramifications for the other States.¹²⁸

With regard to international agreements that apply *solely* to Antarctica, the international community has the security of the Antarctic Treaty System.¹²⁹ Even with the Antarctic Treaty system in place, however, the question remains as to what international law actually exists on the continent.¹³⁰ The question is important because the answer determines what countries are included in the Treaty system and how influential the Treaty is over their actions. For example, are the provisions of the various treaties binding on States that do not sign them? Is the Treaty regime so broad as to include all States regardless of their own beliefs or acquiescence? A number of different views with regard to what sort of international laws exist in application to the Antarctic.

The first major view of possible existing law is based almost

¹²¹ See Jonathan I. Charney, *The Antarctic System and Customary International Law*, in INTERNATIONAL LAW FOR ANTARCTICA, *supra* note 3, at 51, 55.

¹²² See *id.* at 56.

¹²³ See *id.*

¹²⁴ See *id.* at 56-58.

¹²⁵ *Id.* at 56.

¹²⁶ See *id.*

¹²⁷ See *id.* at 57.

¹²⁸ See *id.* at 56-57.

¹²⁹ See *id.* at 60-61.

¹³⁰ See *id.* at 61.

exclusively on the Antarctic Treaty system.¹³¹ The idea is that if a number of States are interested in a topic, they can join together to make special or regional law, like the Antarctic Treaty System, which would apply to all States regardless of whether those States are part of the agreement.¹³² Generally, however, for a broad law to apply in this manner, territorial sovereignty or consent by the non-signing States is necessary to bind those States.¹³³ Non-signing States to the Antarctic Treaty have not agreed to be bound and territorial sovereignty does not exist. Thus, the Antarctic Treaty System alone does not make up a body of law that binds the non-signing States.¹³⁴

The argument that an international law be applied to non-signing parties is strengthened if these States were intended to be bound and gave their consent to be bound by the law as well.¹³⁵ Although no State has expressly bound itself to the Antarctic Treaty System in this way, some States may have bound themselves implicitly by not objecting to the law, or by their comments or writings of support at United Nations meetings.¹³⁶ Finally, some non-signing States may be indirectly bound because they have almost an obligation to cooperate with Parties to the Antarctic Treaty in order to conduct any activity in Antarctica.¹³⁷ In sum, non-Parties to the Antarctic Treaty System may be considered bound to the international law imposed by the System in a number of ways.¹³⁸

The second possible view of existing law in Antarctica is that an international law exists that is binding on all countries. The basis of this law is the theory that Antarctica is preserved for the "common heritage of mankind."¹³⁹ No set definition of the "common heritage of mankind" exists.¹⁴⁰ However, definitions commonly contain the same five elements: 1) the area in question must not be subject to appropriation; 2) resource

¹³¹ *See id.*

¹³² *See id.* at 62. The International Court of Justice has recognized that countries could establish certain regional rules of behavior. *See id.*

¹³³ *See id.* at 62-65.

¹³⁴ *See id.* at 63. Others disagree and think that the Antarctic Treaty System does provide a legal basis for enforcement against even non-signing States. *See, e.g.,* Charney, *supra* note 121, at 63 n.29.

¹³⁵ *See id.* at 66.

¹³⁶ *See id.* at 68-71.

¹³⁷ *See id.* at 72.

¹³⁸ *See id.* at 73-74.

¹³⁹ *See id.* at 75.

¹⁴⁰ *See* Heim, *supra* note 1, at 827.

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management must be shared by all countries; 3) profits or benefits from
the exploitation of resources must be shared by all mankind; 4) the area
must be specifically set aside for peaceful purposes; and 5) the given area
must be "preserved for future generations."¹⁴¹

This theory gained momentum and challenged the Antarctic Treaty System in the mid-1980's.¹⁴² In fact, the concept formed the basis of two major treaties that address international law in both of the other common spaces: the Moon Treaty of 1979¹⁴³ and the 1982 Law of the Sea Convention.¹⁴⁴ Developed and developing countries differ on the applicability of this principle to Antarctica.¹⁴⁵ Developing countries believe that a multinational board should be designated to regulate the exploitation of resources.¹⁴⁶ They also believe that the benefits from exploitation should be spread among all of the nations.¹⁴⁷ In contrast, developed countries believe merely that they should have a right to exploit resources in a common heritage area if they are technologically able to do so.¹⁴⁸

Part of the reluctance that some States have in treating Antarctica as a common heritage area may be because an express designation of the continent as such a zone would essentially void the territorial claims of the seven initial claimants.¹⁴⁹ The claimants have been the most vocal in opposing the inclusion of the common heritage theory in application to Antarctica.¹⁵⁰ The application of the doctrine to Antarctica is still very

¹⁴¹ See *id.*

¹⁴² See JOYNER & THEIS, *supra* note 2, at 161.

¹⁴³ Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, *opened for signature* Dec. 5, 1979, art. 11, para. 1, 34 U.N. GAOR, Supp. No. 20, UN Doc. No. A/34/20, *reprinted in* 1363 U.N.T.S. 3, and in 18 I.L.M. 1434 (entered into force July 11, 1984). See Charney, *supra* note 121, at 77.

¹⁴⁴ United Nations Convention on the Law of the Sea, Dec. 10, 1982, pmbl., U.N. Doc. A/CONF. 62/122, 21 I.L.M. 1261 (1982), *revised by* U.N. Doc A/CONF. 62/122/corrs. 3 & 8 (1982). See Charney, *supra* note 121, at 77.

¹⁴⁵ See Heim, *supra* note 1, at 827-28.

¹⁴⁶ See *id.* at 827.

¹⁴⁷ See *id.*

¹⁴⁸ See *id.* The United States also had concerns about justifying its presence in Antarctica to the international community if the Common Heritage concept gained ground. See JOYNER & THEIS, *supra* note 2, at 161-62.

¹⁴⁹ See Harminderpal Singh Rana, Note, *The "Common Heritage of Mankind" & the Final Frontier: A Reevaluation of Values Constituting the International Legal Regime for Outer Space Activities*, 26 RUTGERS L.J. 225, 237-38, 237 n.66 (1994).

¹⁵⁰ See Charney, *supra* note 121, at 79.

controversial.¹⁵¹ This debate is the main reason why the “common heritage” principle is not the underlying international law in Antarctica at the present time.¹⁵²

The third major view of a possible international law presently at work in Antarctica is based on the idea that due to the implementation of the Antarctic Treaty System, certain norms or customs have developed that have the effect of a general international law.¹⁵³ These customs include standards such as non-militarization and the freedom of scientific research.¹⁵⁴ The Parties to the Treaty that have acted in Antarctica have taken care thus far to act in conformity with the customs articulated by the Treaty.¹⁵⁵ Even States that have not been involved in activities in Antarctica have indicated that they have accepted the customs under the Treaty System as law.¹⁵⁶

Some States are likely to resist the progression of the customs into law.¹⁵⁷ While the claimant States enjoy the benefit of the protection of their claims by the Antarctic Treaty, they may see the development of the customs under the Treaty into law as a threat to their claims.¹⁵⁸ Certainly, if the customs are accepted as law, then the claimant States are bound as any other and cannot exploit their claims without interference.¹⁵⁹ Regardless of their views, there does seem to be a general international law that applies to Antarctica based on the customs stated in the Antarctic Treaty.

Some of the existing general international agreements may apply to Antarctica if they are not based on territorial sovereignty, or if they are based on international custom.¹⁶⁰ Custom that develops in this geographic area should be based upon a rule of reason that is used for the other global commons.¹⁶¹ Similarly, international law that specifically addresses

¹⁵¹ See generally *id.* at 79-80.

¹⁵² See *id.* at 80.

¹⁵³ See *id.*

¹⁵⁴ See *id.* at 96.

¹⁵⁵ See *id.* at 81.

¹⁵⁶ See *id.* at 81.

¹⁵⁷ See *id.* at 91-92.

¹⁵⁸ See *id.*

¹⁵⁹ See *id.*

¹⁶⁰ See *id.* at 55-61.

¹⁶¹ See *id.* at 57.

Antarctica is also based on both treaties and custom.¹⁶² The law based on the Antarctic Treaty System may apply to non-signing States if they have consented to be bound by implication.¹⁶³ Further, non-signing States may be bound to an international law resulting from the Treaty because they are unable to take part in activities in Antarctica without cooperating with the signing Parties.¹⁶⁴ The customs that develop from the Treaty System may also help to form the basis for an international Antarctic law.¹⁶⁵ The common heritage principle does not apply to Antarctica at this time, primarily because it is so controversial.¹⁶⁶ Although general international law applies to Antarctica in a limited fashion, the Antarctic Treaty System also forms the basis for international law that specifically addresses Antarctica.¹⁶⁷

IV. UNITED STATES DOMESTIC LAWS AFFECTING ANTARCTICA

Generally, United States domestic laws interact with the international community only in a limited way. These laws are governed by a "concept of extraterritoriality [which] consists of a country's application of its laws and regulations to activities outside its . . . territory."¹⁶⁸ In general, a presumption exists against the extraterritorial application of domestic law.¹⁶⁹ In effect, this means that domestic laws are presumed not to apply outside of the United States and its territories.¹⁷⁰

The rationale for the presumption is the governmental interest in avoiding civil suits that may hang up international programs and research.¹⁷¹ An international claim against another country or even a United States actor in another country for violation of a domestic

¹⁶² See *id.* at 61.

¹⁶³ See *id.* at 68.

¹⁶⁴ See *id.* at 72.

¹⁶⁵ See *id.* at 80.

¹⁶⁶ See *id.* at 75.

¹⁶⁷ See *id.* at 95.

¹⁶⁸ Jennifer A. Purvis, *The Long Arm of the Law? Extraterritorial Application of U.S. Environmental Legislation to Human Activity in Outer Space*, 6 GEO. INT'L ENVTL. L. REV. 455, 460 (1994).

¹⁶⁹ See Lauren Levy, *Stretching Environmental Statutes to Include Private Causes of Action and Extraterritorial Application: Can it be Done?*, 6 DICK. J. ENVTL. L. & POL'Y 65, 85 (1997), available in LEXIS, Lawrev Library, Djelp File.

¹⁷⁰ See *id.*

¹⁷¹ See generally Levy, *supra* note 169.

environmental law could bring research and other activities, both public and private, to a halt.¹⁷² Another reason why courts recognize a presumption against extraterritoriality is that application of United States laws to actors of other countries has the potential to cause international strife by conflicting with foreign laws.¹⁷³

However, courts recognize at least three times when the presumption does not occur: 1) when Congress expresses an intent that the law apply outside of the United States; 2) when not applying the law extraterritorially would cause adverse effects within the United States (as with antitrust laws); and 3) when the actions themselves occur within the United States.¹⁷⁴ In addition to the treaties that the United States has signed and observed as part of the Antarctic Treaty System, some court cases have laid the foundation and explored the limits of the extraterritorial application of domestic laws.¹⁷⁵ The primary case that addresses whether domestic law should apply to Antarctica is *Environmental Defense Fund, Inc. v. Massey*.¹⁷⁶

In *Massey*, the Environmental Defense Fund brought suit against Walter E. Massey, the Director of the National Science Foundation (NSF), for not complying with the National Environmental Policy Act (NEPA)¹⁷⁷ in burning waste in Antarctica.¹⁷⁸ Under NEPA, federal agencies are required to prepare an EIS before engaging in any activity that may significantly affect the environment.¹⁷⁹ The NSF argued that their activities did not have to comply to NEPA in Antarctica.¹⁸⁰ They relied

¹⁷² See Robert S. Cunningham, *NEPA and the Rest of the World*, SB64 A.L.I.-A.B.A. 461, 464 (1997), available in WESTLAW, ALI-ABA Database.

¹⁷³ See *Boureslan v. Aramco*, 653 F. Supp. 629 (S.D. Tex. 1987), *aff'd*, 857 F.2d 1014 (5th Cir. 1988), *reh'g granted* 863 F.2d 8 (5th Cir. 1988), *aff'd*, 892 F.2d 1271 (5 Cir. 1990), *cert. granted sub nom.* Equal Employment Opportunity Comm'n v. Arabian American Oil Co., 498 U.S. 808 (1990), *aff'd* 499 U.S. 244 (1991).

¹⁷⁴ See *Environmental Defense Fund, Inc. v. Massey*, 772 F. Supp. 1296 (D.D.C. 1991), *rev'd* 986 F.2d 528, 531-32 (D.C. Cir. 1993).

¹⁷⁵ See *Equal Employment Opportunity Comm'n*, 499 U.S. at 248; *Massey*, 986 F.2d at 531-32.

¹⁷⁶ See *Environmental Defense Fund, Inc. v. Massey*, 772 F. Supp. 1296 (D.D.C. 1991), *rev'd* 986 F.2d 528 (D.C. Cir. 1993).

¹⁷⁷ National Environmental Policy Act, § 102, 42 U.S.C. § 4332 (1994).

¹⁷⁸ See *Massey*, 986 F.2d at 529.

¹⁷⁹ See 42 U.S.C. § 4332(2)(C).

¹⁸⁰ See *Massey*, 986 F.2d at 530.

Executive Order 12,114¹⁸² used primarily the same standard that NEPA requires. The real difference between NEPA and the Executive Order was that the Executive Order did not give a basis for a cause of action against a federal agency if the agency did not comply with its requirements.¹⁸³ Thus, if NSF was bound only by the Executive Order, then the agency's decision would not be subject to judicial review, regardless of whether the agency prepared an EIS on the incineration of waste.¹⁸⁴

Whereas the presumption against application of domestic laws worked in the context of foreign countries, the court decided that the presumption against extraterritoriality was weakened when applied to a common area like Antarctica.¹⁸⁵ Thus, the court in *Massey* held that the NSF was bound to follow the requirements of NEPA in incinerating waste in Antarctica.¹⁸⁶ The court noted that the presumption against extraterritoriality existed to prevent discord between countries.¹⁸⁷ In ruling against the NSF, the court based its decision on the fact that applying NEPA to Antarctica could result in little international conflict between countries in Antarctica, which is technically owned by no one.¹⁸⁸ In dicta, the court said that if NEPA were to conflict with more important foreign policy concerns, such as not holding up a project, then the foreign policy concerns would trump NEPA's requirements.¹⁸⁹

In attempting to regulate the actions of their own nationals, the United States has also enacted legislation that specifically addresses Antarctica. This occurred for the first time in 1978, with the passage of the Antarctic Conservation Act of 1978.¹⁹⁰ This law denoted a responsible agency and added an element of predictability to the government's

¹⁸¹ See *id.*

¹⁸² See Environmental Effects Abroad of Major Federal Actions, Exec. Order No. 12,114, 3 C.F.R. § 356 (1980).

¹⁸³ See *Massey*, 986 F.2d. at 530; Exec. Order No. 12,114, 3 C.F.R. § 356.

¹⁸⁴ See *Massey*, 986 F.2d. at 530; Exec. Order No. 12,114, 3 C.F.R. § 356.

¹⁸⁵ See *Massey*, 986 F.2d. at 533.

¹⁸⁶ See *id.* at 536-37.

¹⁸⁷ See *id.* at 533.

¹⁸⁸ See *id.* at 534.

¹⁸⁹ See *id.*

¹⁹⁰ See 16 U.S.C. §§ 2401-12 (1994).

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regulation of its nationals in Antarctica.¹⁹¹ The 1978 Act directed the National Science Foundation (NSF) to perform the monitoring function of the United States actors in Antarctica.¹⁹² It also directed NSF to “ensure protection of the native flora and fauna and preservation of the ecosystem; and to develop and issue regulations to control pollution in the Antarctic.”¹⁹³

The most recent domestic law applicable to Antarctica is the Antarctic Science, Tourism, and Conservation Act of 1996 (ASTCA).¹⁹⁴ Congress passed the law on October 2, 1996 with almost unanimous approval.¹⁹⁵ Some of the concerns that motivated Congress to act were the potential for environmental harm in Antarctica due to increased tourism and major concerns about the effects of mineral exploitation on the Antarctic environment.¹⁹⁶ Politicians and environmentalists agree that the law represents a consensus for parties with an interest in the Antarctic.¹⁹⁷

Congress tried to address its environmental concerns in two primary ways when enacting the law. First, Congress officially and broadly applied NEPA to all activity in Antarctica, be it governmental or non-governmental activities.¹⁹⁸ Second, Congress conformed the environmental monitoring procedures of the United States to those required by the Madrid Protocol.¹⁹⁹ This conformance was needed so that the Protocol could become law internationally. The concerns about NEPA and the presumption against extraterritoriality after *Massey* are removed because the ASTCA met one of the three basic exceptions to the presumption: the expression of Congress for the law to apply extraterritorially.²⁰⁰

Congress listed a number of specific ways for the new law to

¹⁹¹ See *id.*

¹⁹² See *id.*

¹⁹³ JOYNER & THEIS, *supra* note 2, at 111. See 16 U.S.C. §§ 2401-12.

¹⁹⁴ 16 U.S.C. §§ 2461-66.

¹⁹⁵ See *Clinton Signs Legislation to Implement Antarctic Environmental Protection Protocol*, BNA INT’L ENV’T DAILY, Oct. 4, 1996, available in WESTLAW, database BNA-IED.

¹⁹⁶ See SENATE COMM. ON COMMERCE, SCIENCE, AND TRANSP., S. REP. NO. 104-332, at 1-4, reprinted in 1996 U.S.C.C.A.N. 3437, 3437-40.

¹⁹⁷ See *id.* at 4, reprinted in 1996 U.S.C.C.A.N. 3440.

¹⁹⁸ See 16 U.S.C.A. §§ 2401, 2403a.

¹⁹⁹ See *id.*; The Protocol, *supra* note 9, annex I, 30 I.L.M. at 1473-76.

²⁰⁰ See *Massey*, 986 F.2d. at 531-32.

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comply with the Protocol.²⁰¹ For example, Congress noted that the law
would require the NSF to issue regulations to protect the flora and fauna of
Antarctica.²⁰² NSF is also required to issue regulations for waste disposal
and waste management.²⁰³ Furthermore, the Coast Guard issued their own
regulations to prohibit marine pollution in Antarctic waters.²⁰⁴ Congress
directs the EPA to write regulations about environmental assessments of
non-governmental activities.²⁰⁵ More generally, the law forbids mineral
exploitation, the introduction of certain materials into the Antarctic, and
certain forms of waste disposal.²⁰⁶

One of the most important sections of the ASTCA is section
2403a. This section addresses the environmental impact assessments,²⁰⁷
and it is here that the application of NEPA and the conformance to the
Protocol are the clearest and take the greatest shape.²⁰⁸ The section affects
federal activities, federal activities carried out with foreign governments,
and non-governmental activities.²⁰⁹ In addressing so many different
activities, the section affects a number of federal agencies, including the
Coast Guard, the Environmental Protection Agency (EPA), and the
NSF.²¹⁰

Each of the federal agencies affected has been given two years to
write regulations and procedures to conform to the new Act.²¹¹ The Coast
Guard has already come out with a Final Rule to direct its own activities
related to the continent.²¹² However, according to its own assessment, the
Coast Guard will not be affected much by the ASTCA.²¹³ In fact, only
thirteen ships are affected.²¹⁴ The new measures adopted by the Coast

²⁰¹ See generally S. REP. NO. 104-332, reprinted in 1997 U.S.C.C.A.N. 3437.

²⁰² See *id.* at 5, reprinted in 1997 U.S.C.C.A.N. 3437, 3441.

²⁰³ See *id.*

²⁰⁴ See *id.*

²⁰⁵ See *id.*

²⁰⁶ See *id.*

²⁰⁷ See 16 U.S.C.A. § 2403a(b).

²⁰⁸ The Code mentions the application of NEPA to federal activities in Antarctica multiple times. See *id.*

²⁰⁹ See *id.* § 2403a(a), (b), and (c).

²¹⁰ See *id.* See also S. REP. NO. 104-332, at 5, reprinted in 1997 U.S.C.C.A.N. 3437, 3441.

²¹¹ See 16 U.S.C.A. § 2403a.

²¹² See Antarctic Treaty Environmental Protection Protocol, 62 Fed. Reg. 18,043 (1997).

²¹³ See *id.* at 18,043-18,045.

²¹⁴ See *id.*

Guard are primarily protective measures for emergencies and reduction in waste.²¹⁵

The EPA is responsible for the oversight of applying section 2403a of the ASTCA to non-governmental actors, such as tour operators.²¹⁶ The agency recently issued a Final Rule.²¹⁷ It requires all tour operators to perform environmental impact assessments that are later reviewed by the EPA.²¹⁸ In fact the Act specifically directs the agency to merely implement the Protocol's requirements.²¹⁹ This Final Rule basically rephrases the environmental impact procedures enumerated in the Protocol.²²⁰

The National Science Foundation has been in charge of Antarctic activities for many years.²²¹ Its role under section 2403a of the ASTCA is to develop regulations for government agencies.²²² The NSF must also issue regulations for joint activities that are to be carried out in conjunction with foreign governments.²²³ The Foundation has already issued its final regulations for the NSF to follow.²²⁴ These regulations also parallel the EIA procedures of the Protocol.²²⁵ Section 641.11 specifies the NSF's policy regarding environmental assessments and safeguards for joint and solo projects.²²⁶ The regulations also note that they apply to "all

²¹⁵ *See id.*

²¹⁶ *See* 16 U.S.C.A. § 2403a. *See also* S. REP. NO. 104-332, at 5, *reprinted in* 1997 U.S.C.C.A.N. 3437, 3441; Environmental Impact Assessment of Nongovernmental Activities in Antarctica, 40 C.F.R. §§ 8-8.12 (1997).

²¹⁷ *See* 40 C.F.R. §§ 8-8.12 (1997).

²¹⁸ *See id.* §§ 8.7, 8.8, 8.9.

²¹⁹ *See* 16 U.S.C.A. § 2403a(c).

²²⁰ *See* 40 C.F.R. §§ 8-8.12; The Protocol, *supra* note 9. However, the EPA regulations also require the operator (that is, a "person or persons organizing a nongovernmental expedition to or within Antarctica") to prepare a Preliminary Environmental Review Memorandum (PERM) which is to be given to the EPA for its determination as to whether the activity will have less than a minor or transitory impact. *See* 40 C.F.R. § 8.6.

²²¹ *See* JOYNER & THEIS, *supra* note 2, at 28. NSF was selected to be the lead agency in 1959. *See id.*

²²² *See* 16 U.S.C.A. § 2405(a); Telephone Interview with Anita Eisenstadt, Assistant General Counsel, National Science Foundation, Office of the General Counsel (Feb. 20, 1998).

²²³ *See id.*

²²⁴ *See* Environmental Assessment Procedures for Proposed National Science Foundation Actions in Antarctica, 45 C.F.R. §§ 641.10 to 641.22 (1998).

²²⁵ *See id.* §§ 641.15 to 641.18.

²²⁶ *See id.* § 641.11.

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proposed projects, programs and actions authorized or approved by, or
subject to the control and responsibility of NSF that may have an impact
on the environment.”²²⁷

Although the ASTCA states that it is applying NEPA to all federal
actors in Antarctica, in truth, it is a modified version of NEPA, since it
incorporates the language and procedure of the Protocol.²²⁸ As stated
above, NEPA requires that an agency conduct an environmental impact
assessment if the agency expects an action to be one “significantly
affecting the quality of human environment.”²²⁹ In contrast, conformance
with the Protocol (and, thus, the ASTCA) requires an impact statement of
some kind for almost every activity.²³⁰

Under the Protocol, there are three separate levels of environmental
impact review and these levels of review vary with the severity of the
expected impact.²³¹ For example, if the impact is expected to have less
than a minor or transitory impact, then no environmental impact
assessment is required and the activity may proceed unchecked.²³² The
second level of review occurs when the impact of an activity is thought to
be no more than minor or transitory, then an Initial Environmental
Evaluation (IEE) is required.²³³ A list of IEEs must then be provided to
the other Parties at the next Consultative meeting.²³⁴ The third level of
review parallels the review required under NEPA. The Protocol states that
if an activity will have “more than a minor or transitory impact” then a

It is the Policy of NSF to use all practicable means, consistent with its
authority, to ensure that potential environmental effects of actions
undertaken by NSF in Antarctica, either independently or in
cooperation with another country, are appropriately identified and
considered during the decisionmaking process, and that appropriate
environmental safeguards which would limit, mitigate or prevent
adverse impacts on the Antarctic environment are identified.

See id.

²²⁷ *See id.* § 645.12.

²²⁸ *See generally* 16 U.S.C.A. § 2403a; The Protocol, *supra* note 9, annex I, 30 I.L.M. at
1473-76.

²²⁹ NEPA, § 102(2), 42 U.S.C. § 4332(2)(C) (1994).

²³⁰ *See generally* The Protocol, *supra* note 9, art. 8, 30 I.L.M. at 1464 and annex I, 30
I.L.M. at 1473-76.

²³¹ *See id.*

²³² *See id.*

²³³ *See id.*

²³⁴ *See id.*

Comprehensive Environmental Evaluation (CEE) is required.²³⁵ A CEE spells out a lengthy process for approval of activities that fall in this category.²³⁶ The ASTCA specifically states that the NEPA phrase “significantly affecting the quality of the human environment” should be regarded as the same as “more than a minor or transitory impact.”²³⁷ Thus, in incorporating these three levels from the Protocol into the ASTCA, the ASTCA requires even stricter environmental assessment procedures than NEPA.

Domestic law generally is presumed not to apply extraterritorially.²³⁸ However, with regard to Antarctica, the courts have ruled in the past that domestic laws may apply in certain circumstances.²³⁹ Further, domestic law may apply extraterritorially if it is the intent of Congress to do so.²⁴⁰ In the case of the ASTCA, the law will apply extraterritorially because it was Congress’ intent that the law do so in order to conform with an international treaty.²⁴¹ In conforming with the Protocol, the ASTCA provides even more stringent requirements for environmental assessment than NEPA.

V. SECTION 2403A(B) OF THE ASTCA: FEDERAL ACTIVITIES CARRIED OUT JOINTLY WITH FOREIGN GOVERNMENTS

The United States government is no stranger to joint activities with other countries. The Department of State determined in 1984 that since the start of the U.S. Antarctic Program, between nine hundred and one thousand scientists from approximately thirty foreign countries had done some work with the Program.²⁴² In part, projects are conducted jointly to

²³⁵ *See id.*

²³⁶ *See id.*

²³⁷ 16 U.S.C.A. § 2403a(a) (1994).

²³⁸ *See Levy, supra* note 169, at 84.

²³⁹ *See Environmental Defense Fund, Inc. v. Massey*, 772 F. Supp. 1296 (D.D.C. 1991), *rev'd* 986 F.2d 528, 531-32 (D.C. Cir. 1993).

²⁴⁰ *See id.*

²⁴¹ *See* 16 U.S.C.A. §§ 2401, 2403 (1994).

²⁴² *See JOYNER & THEIS, supra* note 2, at 96. The United States has had agreements in recent years with Canada, Russia, Brazil, Italy, Australia, Britain, Germany, and New Zealand, among others. The agreements deal with topics ranging from research to air transport services to mapping. *See Spadework to Get to Bottom of Antarctica's Ice Age*, AGENCE FRANCE-PRESSE (Oct. 21, 1997). *See also* Agreement Between the United States and Canada Concerning Cooperation on the Radarsat [Remote Sensing] Project,

Perhaps recognizing the need for some guidelines to conduct joint activities among nations, the Protocol specifically addresses such activities. Article 8 of the Protocol states: "Where activities are planned jointly by more than one Party, the Parties involved shall nominate one of their number to coordinate the implementation of the environmental impact assessment procedures set out in Annex I."²⁴⁴ The Protocol uses the word "Party" to indicate that a State has signed or ratified the Protocol.²⁴⁵ States that have not done this, but have acceded to the Protocol are dependent on the Parties to participate in Antarctic activity.²⁴⁶

On the domestic side, section 2403a(b) of the ASTCA also deals specifically with federal activities carried out jointly with foreign governments.²⁴⁷ In the section, Congress attempts to implement the parallel clause in the Protocol while minimizing the exposure of the United States to environmental liability caused by the actions of other governments.²⁴⁸ Under the language of this section, "joint activity" is not defined.²⁴⁹ The ASTCA instead states that the President has the power to designate federal agencies to define joint activity themselves.²⁵⁰ The language of the ASTCA is not quite the same as that of the Protocol. Whereas the Protocol appears to be somewhat democratic about selecting who shall be responsible for the environmental impact assessment

with Memorandum of Understanding (entered into force Nov. 12, 1991), *available in* 1991 WL 494985; Air Transport Services Interim Agreement, with Memorandum of Consultations, Between the United States of America and Brazil (entered into force Dec. 10, 1984), *available in* 1984 WL 161858; Memorandum of Understanding Between the Geological Survey of the Department of Interior of the United States of America and the Experimental Geophysics Observatory of the Ministry of Universities and Scientific Research of the Italian Republic Concerning Scientific and Technical Cooperation in the Earth Sciences (entered into force Apr. 19, 1991) *available in* 1991 WL 538866.

²⁴³ See Augustine, *supra* note 5.

²⁴⁴ The Protocol, *supra* note 9, art. 8, para. 4, 30 I.L.M. at 1464.

²⁴⁵ See Patrizia De Cesari, *Scientific Research in Antarctica: New Developments*, in INTERNATIONAL LAW FOR ANTARCTICA, *supra* note 3, at 413, 421. A "Consulting Party" is specifically defined as a Party that has voting power. See The Protocol, *supra* note 9, art. 1, para. d, 30 I.L.M. at 1462.

²⁴⁶ See De Cesari, *supra* note 245, at 442.

²⁴⁷ See 16 U.S.C.A. § 2403a(b).

²⁴⁸ See *id.*

²⁴⁹ See *id.*

²⁵⁰ See *id.*

procedures, the ASTCA is not.²⁵¹ Instead, the ASTCA glosses over the involvement of acceding countries and focuses more on the contribution of the involved Parties in determining which one should do the EIAs.²⁵² Section 2403a(b) states in part:

(2) Where the Secretary of State, in cooperation with the lead United States agency planning an Antarctic joint activity, determines that—

(A) the major part of the activity is being contributed by a government or governments other than the United States;

(B) one such government is coordinating the implementation of environmental impact assessment procedures for that activity; and

(C) such government has signed, ratified, or acceded to the Protocol,

the requirements of subsection (a) of this section shall not apply with respect to that activity.²⁵³

The section also states that decisions made by States under paragraph (2) and U.S. agency decisions in conjunction with joint activities are not subject to judicial review.²⁵⁴

Thus, in activities where the United States is the main contributor, the federal agencies must comply with the three-tier environmental impact assessment procedures of 2403a(a).²⁵⁵ The implication is that even stricter standards than NEPA will apply to these joint activities. Under the Protocol, the other involved Parties may want to pick a country besides the United States to do the environmental impact assessment and can decide among themselves which country will bear the responsibility.²⁵⁶ The domestic law of the United States at least ensures that if the Parties want another State to do an EIA in compliance with the Protocol, the United

²⁵¹ See The Protocol, *supra* note 9, art. 8, 30 I.L.M. at 1464. See also 16 U.S.C.A. § 2403a(b).

²⁵² See 16 U.S.C.A. § 2403a(b).

²⁵³ 16 U.S.C.A. § 2403a(b). Subsection 2403a(a) of ASTCA lists the EIA procedures. See *id.*

²⁵⁴ See *id.*

²⁵⁵ See *id.* § 2403a(b).

²⁵⁶ See The Protocol, *supra* note 9, art. 8, para. 4, 30 I.L.M. at 1464.

States will still have to analyze the impact at home, on its own.²⁵⁷ This is a good method for ensuring environmental responsibility for joint projects in which the United States is contributing the most money, since the United States is already equipped for such analyses.²⁵⁸

Different issues arise when the United States is involved in a joint activity but is not the main contributor.²⁵⁹ If another government is coordinating the EIAs and has signed or ratified the Protocol, then the United States does not have to do an EIA at all.²⁶⁰ This is not an issue of concern for an activity that requires a CEE. That is, for an activity that may have more than a minor or transitory impact, the standard of environmental inquiry is very high under the Protocol.²⁶¹ The standard is likewise fairly high for an activity having not more than a minor or transitory impact.²⁶² Risk is associated with activities that are expected to have a minor or transitory impact. In such a case, the States review the environmental impact of the activity according to their own domestic standards.²⁶³ The signing and ratifying Parties are all required to have domestic laws to control their own activities and thus are likely to make better decisions because they will have an established framework to guide them.

In addition, the ASTCA includes acceding States, countries that have agreed to abide by the terms of the Protocol.²⁶⁴ More and more States are acceding to the Protocol.²⁶⁵ The problem with allowing these countries to be involved with the EIA process is that, even if the States are the major contributors, the States may have joined the Antarctic Treaty System for political reasons with only a small amount of expert knowledge

²⁵⁷ See 16 U.S.C.A. §§ 2403a(a), 2403(b).

²⁵⁸ See NEPA § 102, 42 U.S.C. § 4332 (1994).

²⁵⁹ The United States is not always the biggest contributor. See Telephone Interview with Harlan Cohen, *supra* note 22.

²⁶⁰ See 16 U.S.C.A. § 2403a(b).

²⁶¹ See The Protocol, *supra* note 9, annex I, arts. 2, 3, 30 I.L.M. at 1473.

²⁶² See *id.*

²⁶³ See The Protocol, *supra* note 9, annex I, art. 1, para. 1, 30 I.L.M. at 1473-74.

²⁶⁴ See 16 U.S.C.A. § 2403a(b); Telephone Interview with Harlan Cohen, *supra* note 22.

These States agree to join and follow the Protocol, but their methods of accession may vary. For example, some may require a Parliamentary decision, whereas others may just require an Administrative action.

²⁶⁵ Some, such as India, China, and Brazil, for political or status reasons. See JOYNER & THEIS, *supra* note 2, at 174.

of Antarctica.²⁶⁶ The other Parties' review of the activities likely to have the most impact on the environment is limited. The Protocol gives countries broad discretion in doing EIAs in general.²⁶⁷ For example, a country may decide on its own, via an environmental analysis, if an activity is going to have a minor or transitory impact. If the country does so, the other countries perform no review at all of the decision.²⁶⁸

For an acceding country without domestic laws on the subject, this carries with it potentially negative side effects. For example, assume an acceding country decides that it wants to conduct some research that involves drilling. The country may not recognize potential harmful threats of the activity to the environment. Even if the country understands that a threat to the environment exists from drilling, it may be unable to assess the impact accurately using the methodology required by the Protocol because it has no real knowledge of the unique Antarctic environment.²⁶⁹ The end result is that an acceding country may decide that questionable activities will have a minor or transitory impact and the other countries do not review this decision.²⁷⁰ Only the environment suffers in such a situation. Certainly some other countries may be concerned when learning of potential environmental impacts due to the activities of acceding countries. However, concerns about causing international strife may make these observing countries reluctant to intrude on the judgment of the

²⁶⁶ See JOYNER & THEIS, *supra* note 2, at 175. The Committee on Environmental Protection (CEP) may be able to offer some advice to countries in charge of performing Impact Assessments. See The Protocol, *supra* note 9, arts. 11, 12, 30 I.L.M. at 1465-66. However, the Parties disagree about the role of CEP. See The Antarctica Project Newsletter (June), *supra* note 107. The Antarctic and Southern Ocean Coalition (ASOC) believes that CEP's abilities to give meaningful advice to countries may be limited since some Parties "do not want it to evaluate the adequacy of environmental assessments for Antarctic activities." See *id.* ASOC is also concerned because the qualifications necessary to act as a representative of CEP were "watered down" by the Parties so that political representatives may qualify rather than qualified scientists. See *id.*

²⁶⁷ See The Protocol, *supra* note 9, annex I, art. 1, 30 I.L.M. at 1473. The Article states:

1. The environmental impacts of proposed activities referred to in Article 8 of the Protocol shall, before their commencement, be considered in accordance with appropriate national procedures.
2. If an activity is determined as having less than a minor or transitory impact, the activity may proceed forthwith.

Id.

²⁶⁸ See *id.*

²⁶⁹ See JOYNER & THEIS, *supra* note 2, at 175.

²⁷⁰ See The Protocol, *supra* note 9, annex I, art. 1, para. 2, 30 I.L.M. at 1473.

In relation to the United States, the ASTCA allows acceding countries to coordinate EIAs when they are the main contributors.²⁷² This can also be dangerous for the same reason that allowing acceding countries to do their own EIAs is dangerous. Acceding countries may perform parts of the EIA process that would not be checked by the other countries, either because they do not need to be under the Protocol or because international pressure prevents the other interested Parties from doing so.²⁷³ Additionally, under the ASTCA, the United States allows itself to be exempted from the process when the acceding country qualifies to do the assessment coordination.²⁷⁴ The Act goes even further, by allowing the decisions of the U.S. federal agencies to be protected from judicial review.²⁷⁵ This means that the United States can rely on countries that are not prepared to coordinate the EIA assessment procedures and not be liable for their decisions at home. For these reasons, removing the United States from the responsibility of environmental impact assessments when an acceding country is the main contributor to a joint activity in which the United States is involved is a mistake.

The United States wisely left out the possibility of a State that had not signed, ratified, or acceded to the Protocol coordinating the EIA procedures.²⁷⁶ In reality, such a country may not be so different from a State that has acceded. As discussed before, the Antarctic Treaty System,

²⁷¹ Even signing Parties have not abided by the Protocol in recent years and international pressure appears to have had little effect. See *Antarctica Specific Report Findings*, WORLD ENV'T REP., Jan. 18, 1995, available in 1995 WL 8355988.

²⁷² See 16 U.S.C.A. § 2403a(b).

²⁷³ Again, CEP may be of little use to an unprepared Party. See *The Antarctica Project Newsletter* (June), *supra* note 107.

²⁷⁴ See 16 U.S.C.A. § 2403a(b); *The Antarctica Project Newsletter* (June), *supra* note 107.

²⁷⁵ See 16 U.S.C.A. § 2403a(b); *The Antarctica Project Newsletter* (June), *supra* note 107. Although eliminating the possibility of judicial review is sometimes considered beneficial for international policy reasons, and may be supported by *Massey*, it eliminates one way that the public can ensure that the federal agencies are properly monitoring their own activities. See *Environmental Defense Fund, Inc. v. Massey*, 772 F. Supp. 1296 (D.D.C. 1991), *rev'd* 986 F.2d 528, 535 (D.C. Cir. 1993); Robert M. Andersen, *Leading International Efforts to Improve Environmental Controls in Antarctica While Navigating National Politics*, 6 GEO. INT'L ENVTL. L. REV. 303, 336-39 (1994) (discussing the feasibility of the applicability of citizen suit provisions of Antarctica).

²⁷⁶ See 16 U.S.C.A. § 2403a(b).

and thus the Protocol, may be binding on States that have not agreed to it in a number of ways: by the sheer force of the System and the implied consent of the non-signing States and by custom based on the System.²⁷⁷ The most persuasive rationale, however, is that all States are bound by the Treaty System simply because they must cooperate with the Parties in order to perform any activities in Antarctica.²⁷⁸ Even if these countries are bound, however, it does not ensure that they will have any expert knowledge of the Antarctic to apply to an EIA.²⁷⁹ The United States correctly requires that federal agencies not be excused from their environmental responsibilities when the country involved has not signed, ratified, or acceded to the Treaty.²⁸⁰

The same rationale should be applied to acceding countries. As the number of acceding countries grows and international interest in Antarctica grows as well, the United States must take steps to ensure that it is protecting the environment in the best way possible. The United States should be required to do environmental impact procedures for all joint activities in which the other States do not seem prepared to do so, even if only to assess whether the United States should be involved at all. Instead, the ASTCA places emphasis on contribution.²⁸¹ Part of the rationale for this may be that the United States has been one of the major contributors in the past to much of the research in Antarctica and the ASTCA was written with a view towards that trend continuing in the future.²⁸² However, the international community is rapidly changing, and it is possible that there will be other States in the future that have enough money to fund major joint activity in Antarctica. These countries may be as unprepared to participate in the EIA procedure as a country that had never acceded at all.

In a similar vein, the United States precludes the other Parties from successfully dealing with the potential problems. In a situation where an acceding country is contributing the most, the United States would either have the acceding country do the EIA or else would complete the EIA

²⁷⁷ See *supra* notes 114-64 and accompanying text.

²⁷⁸ See Charney, *supra* note 121, at 61-90 (discussing three theories to show that Antarctic international law is binding on all States).

²⁷⁹ See JOYNER & THEIS, *supra* note 2, at 175.

²⁸⁰ See 16 U.S.C.A. § 2403a(b).

²⁸¹ See *id.*

²⁸² See *id.*; Telephone Interview with Harlan Cohen, *supra* note 22.

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themselves.²⁸³ Certainly, opportunities may arise where another signing
Party that is more than adequately prepared (such as one of the original
Consulting Parties) could offer to do the EIAs and avoid exposing the
United States and other countries to liability. Reaching a consensus is also
difficult in a situation where there are a number of States working
together, and the U.S. gains nothing by limiting itself to the framework of
the ASTCA.²⁸⁴ However, in such a scenario, the United States is obliged
to do an EIA, no matter how minor its role in the activity.²⁸⁵

The drafters of the ASTCA may, in part, be relying on the Protocol
itself to provide environmental protection where the ASTCA leaves off.
Supporters of the Protocol have listed a number of reasons why at least the
Protocol EIA procedures will be a success.²⁸⁶ Some of the reasons include
the ideas that international pressure will keep other countries in line or that
Parties can raise issues of non-conformance by other countries at the
Consultative meetings.²⁸⁷ The Protocol also provides at least some review
for CEEs and IEEs.²⁸⁸

However, the United States can not just rely on the strength of the
Protocol to protect the Antarctic environment from joint activities.
Environmental problems still abound even under the Protocol. Some
countries are not following the procedures of the Protocol right now.²⁸⁹
The United States may feel more pressure to avoid interfering with other
States than to take its own action. In joint activities where the United
States is not a big player, the NSF may not have an incentive to monitor
the environmental impacts of the activity, although the United States may
be the most able to do so.²⁹⁰

The United States should have incorporated the flexibility of
Protocol in its procedures for selecting which State should complete the

²⁸³ See 16 U.S.C.A. § 2403a(b).

²⁸⁴ See JOYNER & THEIS, *supra* note 2, at 175.

²⁸⁵ See 16 U.S.C.A. § 2403a(b).

²⁸⁶ See Francisco Orrego Vicuña, *The Protocol on Environmental Protection to the Antarctic Treaty: Questions of Effectiveness*, 7 GEO. INT'L ENVTL. L. REV. 1 (1994).

²⁸⁷ See *id.* at 4-5.

²⁸⁸ See The Protocol, *supra* note 9, annex I, arts. 2, 3, 30 I.L.M. at 1474-75.

²⁸⁹ See *Charges of Antarctic Degradation Emerge Following Investigation*, WORLD ENV'T REP., Jan. 18, 1995, available in 1995 WL 8355987.

²⁹⁰ The NSF has been criticized in the past for not being responsible in its environmental duties. See Jeffery Mervis, *Science Cedes Ground to Environmental Concerns*, 261 SCIENCE 676, 676 (1993). See also JOYNER & THEIS, *supra* note 9, at 124.

EIAs. It could have eliminated the concerns about unprepared countries performing the impact assessments in some situations and shifted the burden from the United States to another capable country in others. The United States would retain the power to negotiate over environmental issues with other countries if it could simply help choose the EIA coordinator along with the rest of the group based on the particular circumstances.

The NSF has tried to rectify these issues somewhat within its own regulatory scheme. It was responsible for making regulations that conform to Section 2403a(b) of the ASTCA.²⁹¹ The NSF regulations do address the interactions of the United States with other countries.²⁹² Section 641.11 of the regulations appears to be a blanket policy statement that implies that the United States will investigate the environmental impact of all the activities in which it is involved.²⁹³ This section also contains the caveat that “[i]t is the policy of NSF to use all practicable means, consistent with its authority” to do so.²⁹⁴ However, the NSF’s authority with regard to EIAs is granted by the Act.²⁹⁵

With regard to joint activities, therefore, the NSF is still limited to considering the factors that are spelled out in the Act. Thus, the NSF must still consider contribution by the United States and other Parties.²⁹⁶ The regulations do not spell out effective ways to approach problems present in some of the more complex scenarios, as with acceding countries.²⁹⁷ The regulations also did not give the United States the option of yielding the duties of doing an EIA in the same situation to another prepared Party as the Protocol allows.²⁹⁸ The NSF wrote a very broad policy statement, which may provide it the greatest flexibility possible under the new law.²⁹⁹ Unfortunately, the limits of the new law may be too confining when

²⁹¹ See 16 U.S.C.A. § 2403a. See also SENATE COMM. ON COMMERCE, SCIENCE, AND TRANSP., S. REP. NO. 104-332, at 5 (1996), reprinted in 1996 U.S.C.C.A.N. 3437, 3441; Telephone Interview with Anita Eisenstadt, *supra* note 222.

²⁹² See 45 C.F.R. § 641.11.

²⁹³ See *id.*

²⁹⁴ See *id.*

²⁹⁵ See 16 U.S.C.A. § 2403a.

²⁹⁶ See 45 C.F.R. §§ 641.10-641.22; 16 U.S.C.A. § 2403a.

²⁹⁷ See generally 45 C.F.R. §§ 641.10-641.22.

²⁹⁸ See *id.*

²⁹⁹ See 45 C.F.R. § 641.11.

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dealing with joint projects.³⁰⁰ The success of the regulations, when applied
in conjunction with the limitations of the Act, remain to be seen.

VI. CONCLUSION

The Antarctic Science, Tourism, and Conservation Act of 1996 brings with it a number of changes to the United States approach to the environmental protection of Antarctica. It forces the compliance of environmental impact assessment procedures with the Madrid Protocol and NEPA. The Act also eliminates some of the confusion, especially in wording, between the two regulatory regimes that existed prior to its passage. Finally, it ensures that United States activities will be properly monitored and accounted for.

Although the Act has made great strides in reconciling NEPA and the Protocol, the ASTCA has some drawbacks, especially in the area of joint international projects. By relying on the amount that the other States are contributing and their status, rather than on their capability in performing EIAs, the United States opens itself up to possible involvement in activity that is harmful to the Antarctic environment. Within the United States borders, the agencies are even protected from judicial review if any joint activity goes awry. Further, the ASTCA prevents the United States from relying on its allies that are very capable of handling environmental inquiries. The Protocol does not provide a solid basis to fall back on if the domestic law fails, in part because the international issues involved are so sensitive and some countries may be unreliable in their assessment procedures. The United States should allow a case-by-case analysis of the facts of a joint activity and act as an equal to the other States in the international community by allowing itself to participate in the scheme suggested by the Protocol.

³⁰⁰ See 16 U.S.C.A. § 2403a.