This testimony is offered in my personal capacity and does not represent an institutional position of the University of Hawaii, its School of Law, or its Institute for Peace. The titles listed above are for informational purposes only.

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Introduction: This draft EIS concerns a proposal to transport 435 tons\(^1\) of rocket cannisters containing the nerve agents VX and GB from West Germany to Johnston Atoll for storage and subsequent incineration. This document does not discuss the loading in Europe and subsequent travel by ship to Johnston, but says those activities will be discussed in other environmental impact statements.

These rocket cannisters will be placed in seabed steel containers and then placed in shipping containers (JACADS DSSEIS, p. 15). The shipping containers will then be loaded onto several ships for the voyage half-way around the northern hemisphere to Johnston Island. Only one ship can be unloaded at a time at Johnston, and unloading takes two weeks (id., p. 15). The other ships will wait offshore until their turns come (id.). The shipping containers will be placed in a designated area on Johnston and then will be transferred over a four month period into igloos that were built previously for the storage of other

poison gases (id. at 19). Mustard-gas projectiles may need to be moved out of the igloos to make room for the European nerve gas (id. at 18). Once in their igloos, the European nerve gas will remain there for up to four years, while other poisons are being incinerated (id. at 25), and then it will take some three and half months to burn the European rockets (id. at 19).

The JACADS DSSEIS states (at p. 7) that the United States has agreed to remove these nerve gas rockets from Europe by December 1992 but does not provide the details of this agreement. It also states that the preferred alternative for the obsolete nerve gas now at eight storage centers in the United States is to destroy them at their present location because of the risks of transportation (id., p. 20). No analysis is provided of the risks of transporting these agents from their location in Germany to the port and then on to Johnston, but those risks would appear to be significant ones. Logically, the preferred alternative form disposing of these agents would also be to destroy them at their present location.

Important Historical Matters and their Legal Consequences.

How Johnston Became Part of the United States. It is difficult to be certain exactly how Johnston Atoll became part of the United States, but the most logical theory is that it was part of the Kingdom of Hawaii as of 1893 and became part of the United States by virtue of the annexation of Hawaii in 1898. The United States did register a claim for the atoll pursuant to the 1856 Guano Islands Act, in the late 1850s, but this claim was apparently abandoned, and the Kingdom of Hawaii's claim to the atoll was recognized by at least one major foreign power, Great Britain, in the early 1890s. Furthermore, the territorial government of Hawaii exercised jurisdiction over Johnston in the early Twentieth Century as if it were part of Hawaii. If the atoll did become part of the United States pursuant to the 1898 annexation, then Native Hawaiians and the State of Hawaii have

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4 Van Dyke, Pettit, Clark & Clark, supra note 2, at 192-93.

5 Id. at 193-94.

6 Id. at 194.
claims to the atoll and its resources that need to be considered."  

Johnston is an artificial island and thus subject to international regulation.

Once the U.S. military agencies gained effective control of the atoll, beginning in the late 1930s and early 1940s, the physical configuration of the atoll changed dramatically. The atoll originally consisted of two islets, Johnston and Sand. Johnston Island was expanded from 46 acres to 625 acres by dredge and fill operations during and after World War II. Today, the island is two miles long and one-half mile wide with an average elevation of eight feet above sea level. Sand Island, a barbell-shaped island lying one-half mile east of Johnston, was increased from 10 to 22 acres in area during this same period. An extensive dredge program completed in 1964 added two new islands—Akau (Hawaiian for "north") and Hikina ("east")—which are 25 acres and 18 acres respectively. The fill material was obtained from dredging seaplane landing areas, the harbor area, and a ship channel. The land areas of this atoll were thus increased dramatically from its original 56 acres to a current total of 690 acres, to serve various military missions.

These changes are significant because what we currently call Johnston Atoll is in effect an "artificial island," and thus subject to international regulation. In particular, the JACADS facility is totally on fill material. See JACADS DSSEIS, p. 35.

The 1972 London Dumping Convention\(^8\) has now been ratified by more than 60 nations, including the United States. These nations meet every year or two in consultative meetings at the International Maritime Organization in London, and it has become the governing international document regulating all ocean dumping.\(^9\)

\(^7\) Id. at 200-01.


\(^9\) Under Article 210(6) of the 1982 Law of the Sea Convention, 21 I.L.M. 1261 (1982), all parties to this 1982 Convention must adopt national laws, regulations, and measures that are "no less effective" in controlling pollution from dumping than the rules established by the London Dumping Convention. The United States has not signed the 1982 Convention but has said that the environmental provisions of this Convention are generally reflective of customary international law.
Article III(1)(a)(i) of the London Dumping Convention defines "dumping" as "any deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea" (emphasis added). The words "platforms or other man-made structures at sea" are not otherwise defined in the Convention. Subsequent interpretations of the London Convention have made it clear that the definition of "dumping" quoted above includes incineration from vessels, platforms, or structures at sea. And at the 1988 Consultative Meeting the parties to the London Dumping Convention adopted resolution LDC.35(11) agreeing to work toward a phasing out of all ocean incineration over the next several years.

The incineration scheduled to commence at Johnston should therefore be subject to the strict rules of the London Dumping Convention under the following approaches:

(1) The current land mass at Johnston Atoll is essentially a "platform or other man-made structure at sea" because its land area is more than ten times its original land area and it has been totally restructured. The current configuration of Johnston is thus akin to an "artificial island," a concept described in Article 60 of the 1982 Law of the Sea Convention. Although such structures are legitimate, they are subject to regulations established to protect the environment and the safety of navigation, they do not have the status of islands, and they do not generate territorial seas, continental shelves, or exclusive economic zones. If this characterization were accepted, incineration from Johnston would be forbidden in coming years because it would be ocean incineration which will be prohibited under the resolution adopted by the 1988 LDC Consultative Meeting. At a minimum, the activity conducted at Johnston must be carried out pursuant to a permit that meets the requirements of the London Dumping Convention.

(2) All atolls should arguably be characterized as inherent parts of the marine environment, and thus chemical incineration from Johnston should be viewed as "dumping at sea" whether or not Johnston is viewed as an artificial installation or not. This argument is based simply on common sense. A low-lying atoll such as Johnston has its weather and ecology controlled by the surrounding sea and is subject to the typhoons and tsunamis (tidal waves) that are generated by marine weather systems and distant earthquakes. In August 1972, for instance, the U.S. Air Force evacuated the total complement of 580 military and civilian personnel from Johnston in anticipation of Hurricane Celeste.10 Celeste hit the atoll on August 20, and for six hours Johnston

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was assaulted by winds in excess of 150 miles per hour which created 45 foot waves. The roofs of several buildings were blown away during this storm.\textsuperscript{11} Twelve years later, in August 1984, all 370 military and civilian employees were evacuated as Hurricane Keli subjected the atoll to winds of 75 to 100 miles per hour and created waves of 35 to 40 feet which swept across the atoll.\textsuperscript{12} (The risks created by a repetition of these incidents are not discussed in the JACADS DSSEIS.)

(3) Under similar reasoning, Johnston could be characterized as a "rare or fragile ecosystem" under Article 194(5) of the 1982 Law of the Sea Convention which nations are required to "protect and preserve." Johnston has been a national wildlife refuge monitored by the U.S. Department of Interior's Fish and Wildlife Service since 1926,\textsuperscript{13} and in February 1986, the Fish and Wildlife Service identified Johnston as one of the ten of its wildlife refuges in greatest need of immediate cleanup.\textsuperscript{14} Johnston is still suffering from radioactive residues remaining from nuclear tests that occurred there in the late 1950s and early 1960s\textsuperscript{15} and from dioxin which spilled when Agent Orange was

\textsuperscript{11} Id., Aug. 21, 1972, at 1, col. 3; Honolulu Star Bulletin, Aug. 21, 1972, at A-1, col. 1.


The announcement by the Service focused on the nerve and mustard gases on Johnston as well as the dioxin and plutonium contamination.

\textsuperscript{15} Particular contamination resulted from three aborted test missile shots in 1962 that contaminated the missile launch emplacement area and other parts of the lagoon. U.S. Corps of Engineers, Pacific Ocean Division, \textit{Draft Environmental Impact Statement for the Johnston Atoll Chemical Agent Disposal System (JACADS)} 38 (June 2, 1983).
mishandled in 1977. Because of these previous environmental insults, it is particularly appropriate to provide special protection to Johnston's ecosystem at present.

When these arguments are combined, one can make a persuasive case that Johnston's incineration should be viewed as "dumping at sea" and thus subject to the international supervision of the London Dumping Convention. If it is viewed as ocean incineration, it should be discontinued under resolution LDC.35(11) adopted by the parties to the London Dumping Convention in October 1988.

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In conclusion, however one looks at the matter, the "preferred alternative" cannot be to transport these highly poisonous wastes half way around the world to a fragile atoll where serious accidents have happened all too frequently in the past. Imagine, just to pose one possibility that the JACADS DSSEIS does not consider, that a hurricane arrives while one boat is being unloaded at the harbor and several others are waiting offshore, and all personnel must be evacuated from Johnston, as they were in 1972 and 1984, even though some of the most toxic poisons humans have ever made lie on Johnston waiting to be put into igloos, and 45 foot waves are expected. Surely some better alternative can be developed. As stated above, the best alternative would appear to be to dispose of these agents at their present location.

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16 In 1977, one million gallons of the herbicide "Agent Orange" were incinerated aboard the Dutch vessel Vulcanus in an area fifty to sixty miles from normal shipping lanes in the open sea downwind of Johnson Atoll. Id. at 39. Mishandling of drums of the herbicide on the atoll resulted in ground contamination with dioxin in several areas of the island which are now off limits to all personnel. Since 1979, the contaminated areas have been monitored and the results suggest that degradation of dioxin continues. Id. The November 1, 1983 JACADS final Environmental Impact Statement stated on L-1 that the "ground in the former Herbicide Orange storage and operations areas is heavily contaminated with Herbicide Orange and dioxin to a depth of at least 12 inches." Id.