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U.S. Department of State Diplomacy in Action

Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques

BUREAU OF INTERNATIONAL SECURITY AND NONPROLIFERATION

Signed in Geneva May 18, 1977

Entered into force October 5, 1978

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Narrative

Use of environmental modification techniques for hostile purposes does not play a major role in military planning at the present time. Such techniques might be developed in the future, however, and would pose a threat of serious damage unless action was taken to prohibit their use. In July 1972 the U.S. Government renounced the use of climate modification techniques for hostile purposes, even if their development were proved to be feasible in the future.

Both the U.S. Senate and the House of Representatives held hearings, beginning in 1972, and the Senate adopted a resolution in 1973 calling for an international agreement "prohibiting the use of any environmental or geophysical modification activity as a weapon of war...." In response to this resolution, the President ordered the Department of Defense to undertake an in-depth review of the military aspects of weather and other environmental modification techniques. The results of this study and a subsequent interagency study led to the U.S. Government's decision to seek agreement with the Soviet Union to explore the possibilities of an international agreement.

During the summit meeting in Moscow in July 1974, President Nixon and General Secretary Brezhnev formally agreed to hold bilateral discussions on how to bring about "the most effective measures possible to overcome the dangers of the use of environmental modification techniques for military purposes." Three sets of discussions were held in 1974 and 1975, resulting in agreement on a common approach and common language.

In August 1975, the chief representatives of the U.S. and the Soviet delegations to the Conference of the Committee on Disarmament (CCD) tabled, in parallel, identical draft texts of a "Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques."

The Convention defines environmental modification techniques as changing -- through the deliberate manipulation of natural processes -- the dynamics, composition or structure of the earth, including its biota, lithosphere, hydro-sphere, and atmosphere, or of outer space. Changes in weather or climate patterns, in ocean currents, or in the state of the ozone layer or ionosphere, or an upset in the ecological balance of a region are some of the effects which might result from the use of environmental modification techniques.

Intensive negotiations held in the CCD during the spring and summer of 1976 resulted in a modified text and, in addition, to understandings regarding four of the Treaty articles. These were transmitted to the U.N. General Assembly for consideration during the fall session.

Article I sets forth the basic commitment: "Each State Party to this Convention undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party." An understanding defines the terms "widespread, long-lasting or severe." "Widespread" is defined as "encompassing an area on the scale of several hundred square kilometers"; "long-lasting" is defined as "lasting for a period of months, or approximately a season"; and "severe" is defined as "involving serious or significant disruption or harm to human life, natural and economic resources or other assets."

With regard to peaceful uses of environmental modification techniques, the convention provides that the parties shall have the right to participate in the fullest possible exchange of scientific and technological information.

In addition to the provision for mutual consultation regarding complaints and for resource to the Security Council, the revised draft establishes the framework for a Consultative Committee of Experts, which would meet on an ad hoc basis when so requested by a party, in order to clarify the nature of activities suspected to be in violation of the convention. Responding to the suggestion of many delegations, the revised text incorporates a provision for periodic conferences to review the Conventions operation.

During the 1976 fall session, the U.N. General Assembly held extensive debate on the draft Convention, including several resolutions relating thereto. On December 10, the General Assembly adopted a resolution by a vote of 96 to 8, with 30 abstentions, which referred the Convention to all member nations for their consideration, signature, and ratification, and requested the U.N. Secretary-General to open the Convention for signature.

The U.N. Secretary-General officiated at the signing ceremony in Geneva on May 18. The United States joined 33 other nations in signing the Convention. The Convention entered into force on October 5, 1978, when the 20th state to sign the Convention deposited its instrument of ratification. President Carter transmitted the Convention to the Senate on September 22, 1978.

The Senate gave its advice and consent to ratification on November 28, 1979, by a vote of 98-0. The President ratified the Convention December 13, 1979. The Convention entered into force for the United States on January 17, 1980, when the U.S. instrument of ratification was deposited in New York.

Treaty Text

Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques

Signed in Geneva May 18, 1977

Entered into force October 5, 1978

Ratification by U.S. President December 13, 1979

U.S. ratification deposited at New York January 17, 1980

The States Parties to this Convention,

Guided by the interest of consolidating peace, and wishing to contribute to the cause of halting the arms race, and of bringing about general and complete disarmament under strict and effective international control, and of saving mankind from the danger of using new means of warfare,

Determined to continue negotiations with a view to achieving effective progress towards further measures in the field of disarmament,

Recognizing that scientific and technical advances may open new possibilities with respect to modification of the environment,

Recalling the Declaration of the United Nations Conference on the Human Environment adopted at Stockholm on 16 June 1972,

Realizing that the use of environmental modification techniques for peaceful purposes could improve the interrelationship of man and nature and contribute to the preservation and improvement of the environment for the benefit of present and future generations,

Recognizing, however, that military or any other hostile use of such techniques could have effects extremely harmful to human welfare,

Desiring to prohibit effectively military or any other hostile use of environmental modification techniques in order to eliminate the dangers to mankind from such use, and affirming their willingness to work towards the achievement of this objective,

Desiring also to contribute to the strengthening of trust among nations and to the further improvement of the international situation in accordance with the purposes and principles of the Charter of the United Nations,

Have agreed as follows:

Article I

1. Each State Party to this Convention undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party.
2. Each State Party to this Convention undertakes not to assist, encourage or induce any State, group of States or international organization to engage in activities contrary to the provisions of paragraph 1 of this article.

Article II

As used in Article I, the term "environmental modification techniques" refers to any technique for changing -- through the deliberate manipulation of natural processes -- the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space.

Article III

1. The provisions of this Convention shall not hinder the use of environmental modification techniques for peaceful purposes and shall be without prejudice to the generally recognized principles and applicable rules of international law concerning such use.
2. The States Parties to this Convention undertake to facilitate, and have the right to participate in, the fullest possible exchange of scientific and technological information on the use of environmental modification techniques for peaceful purposes. States Parties in a position to do so shall contribute, alone or together with other States or international organizations, to international economic

and scientific co-operation in the preservation, improvement, and peaceful utilization of the environment, with due consideration for the needs of the developing areas of the world.

Article IV

Each State Party to this Convention undertakes to take any measures it considers necessary in accordance with its constitutional processes to prohibit and prevent any activity in violation of the provisions of the Convention anywhere under its jurisdiction or control.

Article V

1. The States Parties to this Convention undertake to consult one another and to cooperate in solving any problems which may arise in relation to the objectives of, or in the application of the provisions of, the Convention. Consultation and cooperation pursuant to this article may also be undertaken through appropriate international procedures within the framework of the United Nations and in accordance with its Charter. These international procedures may include the services of appropriate international organizations, as well as of a Consultative Committee of Experts as provided for in paragraph 2 of this article.

2. For the purposes set forth in paragraph 1 of this article, the Depositary shall, within one month of the receipt of a request from any State Party to this Convention, convene a Consultative Committee of Experts. Any State Party may appoint an expert to the Committee whose functions and rules of procedure are set out in the annex, which constitutes an integral part of this Convention. The Committee shall transmit to the Depositary a summary of its findings of fact, incorporating all views and information presented to the Committee during its proceedings. The Depositary shall distribute the summary to all States Parties.

3. Any State Party to this Convention which has reason to believe that any other State Party is acting in breach of obligations deriving from the provisions of the Convention may lodge a complaint with the Security Council of the United Nations. Such a complaint should include all relevant information as well as all possible evidence supporting its validity.

4. Each State Party to this Convention undertakes to cooperate in carrying out any investigation which the Security Council may initiate, in accordance with the provisions of the Charter of the United Nations, on the basis of the complaint received by the Council. The Security Council shall inform the States Parties of the results of the investigation.

5. Each State Party to this Convention undertakes to provide or support assistance, in accordance with the provisions of the Charter of the United Nations, to any State Party which so requests, if the Security Council decides that such Party has been harmed or is likely to be harmed as a result of violation of the Convention.

Article VI

1. Any State Party to this Convention may propose amendments to the Convention. The text of any proposed amendment shall be submitted to the Depositary who shall promptly circulate it to all States Parties.

2. An amendment shall enter into force for all States Parties to this Convention which have accepted it, upon the deposit with the Depositary of instruments of acceptance by a majority of States Parties. Thereafter it shall enter into force for any remaining State Party on the date of deposit of its instrument of acceptance.

Article VII

This Convention shall be of unlimited duration.

Article VIII

1. Five years after the entry into force of this Convention, a conference of the States Parties to the Convention shall be convened by the Depositary at Geneva, Switzerland. The conference shall review the operation of the Convention with a view to ensuring

that its purposes and provisions are being realized, and shall in particular examine the effectiveness of the provisions of paragraph 1 of Article I in eliminating the dangers of military or any other hostile use of environmental modification techniques.

2. At intervals of not less than five years thereafter, a majority of the States Parties to the Convention may obtain, by submitting a proposal to this effect to the Depositary, the convening of a conference with the same objectives.

3. If no conference has been convened pursuant to paragraph 2 of this article within ten years following the conclusion of a previous conference, the Depositary shall solicit the views of all States Parties to the Convention, concerning the convening of such a conference. If one third or ten of the States Parties, whichever number is less, respond affirmatively, the Depositary shall take immediate steps to convene the conference.

Article IX

1. This Convention shall be open to all States for signature. Any State which does not sign the Convention before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This Convention shall be subject to ratification by signatory States. Instruments of ratification or accession shall be deposited with the Secretary-General of the United Nations.

3. This Convention shall enter into force upon the deposit of instruments of ratification by twenty Governments in accordance with paragraph 2 of this article.

4. For those States whose instruments of ratification or accession are deposited after the entry into force of this Convention, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or accession and the date of the entry into force of this Convention and of any amendments thereto, as well as of the receipt of other notices.

6. This Convention shall be registered by the Depositary in accordance with Article 102 of the Charter of the United Nations.

Article X

This Convention, of which the English, Arabic, Chinese, French, Russian, and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to the Governments of the signatory and acceding States.

IN WITNESS WHEREOF, the undersigned, being duly authorized thereto by their respective governments, have signed this Convention, opened for signature at Geneva on the eighteenth day of May, one thousand nine hundred and seventy-seven.

DONE at Geneva on May 18, 1977.

ANNEX TO THE CONVENTION CONSULTATIVE COMMITTEE OF EXPERTS

1. The Consultative Committee of Experts shall undertake to make appropriate findings of fact and provide expert views relevant to any problem raised pursuant to paragraph 1 of Article V of this Convention by the State Party requesting the convening of the Committee.

2. The work of the Consultative Committee of Experts shall be organized in such a way as to permit it to perform the functions set forth in paragraph 1 of this annex. The Committee shall decide procedural questions relative to the organization of its work, where possible by consensus, but otherwise by a majority of those present and voting. There shall be no voting on matters of substance.
3. The Depositary or his representative shall serve as the Chairman of the Committee.
4. Each expert may be assisted at meetings by one or more advisers.
5. Each expert shall have the right, through the Chairman, to request from States, and from international organizations, such information and assistance as the expert considers desirable for the accomplishment of the Committees work.

UNDERSTANDINGS REGARDING THE CONVENTION

Understanding Relating to Article I

It is the understanding of the Committee that, for the purposes of this Convention, the terms, "widespread", "long-lasting" and "severe" shall be interpreted as follows:

- (b) "long-lasting": lasting for a period of months, or approximately a season;
- (c) "severe": involving serious or significant disruption or harm to human life, natural and economic resources or other assets.

- (a) "widespread": encompassing an area on the scale of several hundred square kilometres;

It is further understood that the interpretation set forth above is intended exclusively for this Convention and is not intended to prejudice the interpretation of the same or similar terms if used in connexion with any other international agreement.

Understanding Relating to Article II

It is the understanding of the Committee that the following examples are illustrative of phenomena that could be caused by the use of environmental modification techniques as defined in Article II of the Convention: earthquakes, tsunamis; an upset in the ecological balance of a region; changes in weather patterns (clouds, precipitation, cyclones of various types and tornadic storms); changes in climate patterns; changes in ocean currents; changes in the state of the ozone layer; and changes in the state of the ionosphere.

It is further understood that all the phenomena listed above, when produced by military or any other hostile use of environmental modification techniques, would result, or could reasonably be expected to result, in widespread, long-lasting or severe destruction, damage or injury. Thus, military or any other hostile use of environmental modification techniques as defined in Article II, so as to cause those phenomena as a means of destruction, damage or injury to another State Party, would be prohibited.

It is recognized, moreover, that the list of examples set out above is not exhaustive. Other phenomena which could result from the use of environmental modification techniques as defined in Article II could also be appropriately included. The absence of such phenomena from the list does not in any way imply that the undertaking contained in Article I would not be applicable to those phenomena, provided the criteria set out in that article were met.

Understanding Relating to Article III

It is the understanding of the Committee that this Convention does not deal with the question whether or not a given use of environmental modification techniques for peaceful purposes is in accordance with generally recognized principles and applicable rules of international law.

Understanding Relating to Article VIII

It is the understanding of the Committee that a proposal to amend the Convention may also be considered at any conference of Parties held pursuant to Article VIII. It is further understood that any proposed amendment that is intended for such consideration should, if possible, be submitted to the Depositary no less than 90 days before the commencement of the conference.

1 These are not incorporated into the Convention but are part of the negotiating record and were included in the report transmitted by the CCD to the U.N. General Assembly in September 1976.

Environmental Modification Convention			
Country	Date ¹ of Signature	Date of Deposit ¹ of Ratification	Date of Deposit ¹ of Accession
Afghanistan			10/22/85
Algeria			12/19/91
Antigua and Barbuda			10/25/88
Argentina			03/20/87
Australia	05/31/78	09/07/84	
Austria			01/17/90
Bangladesh			10/03/79
Belgium	05/18/77	07/12/82	
Benin	06/10/77	06/30/86	
Bolivia	05/18/77		
Brazil	11/09/77	10/12/84	
Brunei			01/01/84 ¹
Bulgaria	05/18/77	05/31/78	
Byelorussian S.S.R. ²	05/18/77	06/07/78	
Canada	05/18/77	06/11/81	
Cape Verde			10/03/79
Chile			04/26/94
Cuba	09/23/77	04/10/78	
Cyprus	10/07/77	04/12/78	
Czechoslovakia	05/18/77	05/12/78	
Czech Republic			02/22/93
Denmark	05/18/77	04/19/78	
Dominica		11/09/92	11/08/78 ¹
Egypt			04/01/82
Ethiopia	05/18/77		
Finland	05/18/77	05/12/78	
German Democratic Republic	05/18/77	05/25/78	

Germany, Federal Republic of	05/18/77	05/24/83	
Ghana	03/21/78	06/22/78	
Greece			08/23/83
Guatemala			03/21/88
Holy See	05/27/77		
Hungary	05/18/77	04/19/78	
Iceland	05/18/77		
India	12/10/77	12/15/78	
Iran	05/18/77		
Iraq	08/15/77		
Ireland	05/18/77	12/16/82	
Italy	05/18/77	11/27/81	
Japan			06/09/82
Korea, Democratic People's Republic of			11/08/84
Korea, Republic of			12/02/86
Kuwait			01/02/80
Laos	04/13/78	10/05/78	
Lebanon	05/18/77		
Liberia	05/18/77		
Luxembourg	05/18/77		
Malawi			10/05/78
Mauritius			12/09/92
Mongolia	05/18/77	05/19/78	
Morocco	05/18/77		
Netherlands	05/18/77	04/15/83	
New Zealand			09/07/84
Nicaragua	08/11/77		
Niger			02/17/93
Norway	05/18/77	02/15/79	
Pakistan			02/27/86
Papua New Guinea			10/28/80
Poland	05/18/77	06/08/78	
Portugal	05/18/77		
Romania	05/18/77	05/06/83	
St. Christopher-Nevis			09/19/83 ¹
St. Lucia		05/27/93	02/22/79 ¹
St. Vincent and the Grenadines			10/27/79 ¹
Sao Tome and Principe			10/05/79
Sierra Leone	04/12/78		
Solomon Islands		06/18/81	06/18/81

Spain	05/18/77	07/19/78	
Sri Lanka	06/08/77	04/25/78	
Sweden			04/27/84
Switzerland			08/05/88
Syria	08/04/77		
Tunisia	05/11/78	05/11/78	
Turkey	05/18/77		
Uganda	05/18/77		
Ukrainian S.S.R. ²	05/18/77	06/13/78	
Union of Soviet Socialist Republics	05/18/77	05/30/78	
United Kingdom	05/18/77	05/16/78	
United States	05/18/77	01/17/80	
Uruguay			09/16/93
Uzbekistan	05/26/93		
Vietnam			08/26/80
Yemen Arab Republic (Sanaa)	05/18/77	07/20/77	
Yemen, People's Democratic of (Aden)			06/12/79
Zaire	02/28/78		
Total ³	51	36	34

¹ Dates given are the earliest dates on which countries signed the agreements or deposited their ratifications or accessions -- whether in Washington, London, Moscow, or New York. In the case of a country that was a dependent territory which became a party through succession, the date given is the date on which the country gave notice that it would continue to be bound by the terms of the agreement.

² The United States regards the signature and ratification by the Byelorussian S.S.R. and the Ukrainian S.S.R. as already included under the signature and ratification of the Union of Soviet Socialist Republics.

³ This total does not include actions by the Byelorussian S.S.R. and the Ukrainian S.S.R. (See footnote 2.)

⁴ Effective January 1, 1979, the United States recognized the Government of the People's Republic of China as the sole government of China.

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