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CONGRESS OF THE UNITED STATES
JOINT COMMITTEE ON ATOMIC ENERGY

February 15, 1961

Dear Mr. President:

I present herewith the summary portion of an Ad Hoc Subcommittee report of a study of U.S. policies in regard to the assignment of nuclear weapons to NATO. This subcommittee consisted of Senator Bennett and Congressmen Aspinall, Hosmer, Westland and myself.

Because of the review which you have ordered in the Department of Defense, and the related appointment of an Advisory Committee headed by the Honorable Dean Acheson to further explore this subject, we wish to place our report in your hands, without delay.

Due to the fact that the formal organization of the Joint Committee on Atomic Energy will not occur for several days, I am presenting this study informally with the unanimous endorsement of the five members of the Ad Hoc Subcommittee. I have no reason to believe that it will not receive the overwhelming support of the full membership of the Joint Committee.

As you know, this report is the result of an inspection trip we took to more than fifteen nuclear weapon installations in eight countries, from the U.K. to [redacted]. It is part of an over-all study of Civilian-Military relations in atomic development and control. The members of the Ad Hoc Subcommittee, together with senior staff members and consultants from Los Alamos and Livermore Laboratories, have participated in the preparation and review of this report on a word-for-word basis. This report has also been reviewed by AEC Acting Chairman Graham, who accompanied our group on the NATO inspection trip.

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I would like to call your particular attention to the following sections of the report:

The President

The White House

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(1) The introduction at pages 1 - 3 points out the possible consequences of an accidental or unauthorized detonation of a nuclear weapon in the NATO system.

(2) Various operating problems observed by the Ad Hoc group are discussed at pages 28 - 38, all of which are of a serious nature. In particular the problems with Jupiter missile bases in [redacted] (discussed at pages 30 and 31) and the problems of unauthorized use and accidental detonations under the fictional weapons custody system now in use (see pages 32 and 37) should be considered. DOE 6.1(a)

(3) Problems of a more general nature are discussed beginning at page 39, including the trend toward reliance on nuclear weapons. This section also discusses the lack of coordination between NATO and U.S. and U.K. in regard to targeting, particularly in relation to fallout effects. Considerable attention is given to the lack of planning of NATO weapons requirements based on our most modern weapons technology. The failure of the Defense Department to furnish the Joint Committee with adequate information on the NATO arrangements as required by law is also covered. We further questioned the use of non-statutory cooperative arrangements contrary to the procedures established under the Atomic Energy Act.

(4) We have attempted to make constructive suggestions and recommendations in regard to both the particular and general problems discussed. For example, we have initiated some suggestions which could make our NATO nuclear weapons much safer against accidents or unauthorized use (see pages 37 and 45 - 47).

I would especially call your attention to our discussion concerning our concluding recommendation beginning at page 60. Based on our review of the nuclear weapon situation, and its crucial importance in the NATO picture as a whole, we believe the over-all role of NATO should be re-evaluated. In so doing, I would stress the following language of the report:

> "... We are not recommending re-evaluation of NATO with any thought that it be abandoned, or that its conventional capability remain weak and ineffective, or its use of tactical nuclear weapons be proscribed. Rather this re-evaluation should seek to find ways in which NATO can be strengthened for its role in the over-all military posture of the free world. ..." (page 62)

Since any consideration of the NATO nuclear weapons system may involve changes in the Atomic Energy Act, I would like to suggest that you arrange for the collaboration of the staffs of the Executive Branch with the Joint Committee and its staff in this regard.

We are making copies of this report available to the Secretary of Defense, the Secretary of State, the Acting Chairman of the Atomic Energy Commission, and the heads of your Disarmament Group and NATO Advisory Panel.

We would be glad to discuss this report with you and any member of your Administration and Advisory Groups.

Respectfully yours,

Chet Holifield
Chairman for Ad Hoc Subcommittee

Enclosure:
MCDLI

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~~RESTRICTED DATA~~
This document contains restricted data as defined in the Atomic Energy Act of 1954

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TABLE OF CONTENTS

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I. INTRODUCTION

A. Purpose of Inspection Trip to NATO Countries

1. General

During the period November 26--December 15, 1960 members and staff of the JCAE visited certain military bases in seven NATO countries and in Spain. This inspection trip was undertaken as a part of a study of civilian-military relationships in the field of atomic energy authorized by Chairman Anderson in August 1960. Section 202 of the Atomic Energy Act of 1954 requires the Joint Committee "to make continuing studies of.....problems relating to the development, use, and control of atomic energy." Thus in making the trip and conducting this study, the Joint Committee has endeavored to carry out its original and traditional role of "watchdog" over the Defense Department and AEC in regard to nuclear matters. (See Appendix 1 for discussion of Joint Committee watchdog role.)

More specifically, the purpose of the Joint Committee trip to U.S. and NATO military bases abroad was to obtain firsthand knowledge and information as to the manner in which nuclear weapons are being integrated into the NATO defense system. The Committee desired to determine the manner and degree to which the United States and its NATO allies are cooperating with one another.

Of particular interest to the Committee was the extent of U.S. physical security and possession of nuclear weapons, the protection of restricted data, and the safety of nuclear weapons against accidental detonation and unauthorized use. At the same time the Committee was equally interested in means of improving the combat readiness of weapons. The Committee was interested in these matters not only from the standpoint of the experience under the 1958 NATO amendments (PL 85-479 discussed at pages 8 - 11) but also in order to be prepared to consider what additional changes, if any, are required in the law.

On the eve of its departure on the NATO trip, November 25, 1960, the Committee was briefed by the State Department as to proposals for changes in control arrangements between U.S. and NATO. During its visit to SHAPE on November 30, 1960, General Norstad also briefed the Committee on his proposed concept of an independent NATO nuclear force.

2. Importance of Nuclear Weapons and Problems of Accidental Detonation or Unauthorized Use

Because of the tremendous increase in the numbers and variety of U.S. nuclear weapons, it is easy to treat them as "just another weapon." It must not be forgotten, however, that even a relatively small yield weapon of less than 20 kilotons (20 KT) was sufficient to destroy 4.7 square miles of the City of Hiroshima and inflict casualties totalling 70,000 killed and another 70,000 injured. In the Joint Committee hearings on the Effects of Nuclear War,

It was estimated that the blast effects of a thermonuclear weapon of 10 megatons would destroy the brick structures of any city out to a distance of 7 miles from ground zero (over 150 square miles in area), and would ignite combustible materials out to a radius of 25 miles. A 1-megaton weapon would destroy brick structures out to a distance of 3 miles (over 28 square miles in area) and cause fires to a distance of 9 miles.

It will be noted (see page 11) that the [redacted] DOE 6.1(a) The Mark 28 and Mark 49, thermonuclear weapons (used in NATO aircraft and Thor and Jupiter warheads) have yields in the 1 megaton range, at least 50 times more powerful than the Hiroshima bomb.

Thus it will be seen that any accidental or intentional detonation of a nuclear weapon in the NATO system could cause tremendous damage. Of equal importance is the fact that any "accidental" detonation involving only the high explosive portion of a nuclear weapon (without a nuclear detonation)* could cause widespread apprehension and even panic unless proper emergency measures and long term educational efforts are undertaken.

The consequences of a nuclear explosion in the NATO system would, of course, be enormous.

Even an accidental detonation of the non-nuclear component of an atomic or thermonuclear weapon could result in political agitation which might cause our NATO partners to request the U.S. to remove its nuclear weapons. The U.S. NATO nuclear weapons system long has been a prime target of Communist propaganda and one or more accidents to these weapons would inevitably lead to increased Communist agitation. Although the accident might be the fault of foreign personnel, the training of personnel is a U.S. responsibility and the weapon would be the property of the United States.

The possibilities of these accidents which can cause some contamination are far from remote. The Committee has been informed of the dropping of several [redacted] As recently as January 16, 1961, a thermonuclear DOE 6.1(a) bomb [redacted] was imperiled by the outbreak of fire on the plane. In the United States, a number of accidents have occurred--the latest occurring on January 24, 1961.

The possibilities of revolutionary coups d'etat by the Communists or rightists in certain NATO countries which are politically unstable are of great concern to the Committee.

*This is generally referred to as a "one point" detonation and is defined as the accidental or deliberate detonation of the HE of a nuclear weapon at a single arbitrary point on the outer or inner surface of, or within, the high explosive shape. One point safety is a term used to describe the assurance that a nuclear weapon, which when the HE is detonated deliberately or accidentally at a single, most critical point and initiated at the most critical time adds no significant nuclear contribution to the explosive yield of the high explosive system (no significant nuclear yield has been generally defined as about 4 pounds of HE equivalent).

In any such take-over it is not unlikely that U. S. nuclear weapons, unless adequately guarded and protected, would also be taken over during the melee. It is conceivable that U. S. nuclear weapons in such circumstances could be used as a part of a civil war, or against the Soviets or some other country.

Any actual, attempted, or accidental use of nuclear weapons in such circumstances might trigger an all-out nuclear war.

Any temporary take-over of U. S. nuclear weapons during a coup would permit access to their design information which would be of value to the new Government or some other country.

These possibilities are not just abstract pipe dreams.

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B. List of Joint Committee on Atomic Energy members, staff and others who participated.

Following are the names of those who participated in the trip:

Joint Committee on Atomic Energy:*

Rep. Chet Holifield, Chairman, Subcommittee on Legislation
Rep. Wayne N. Aspinall
Senator Wallace F. Bennett
Rep. Craig Hosmer
Rep. Jack Westland

James T. Ramey, Executive Director
John T. Conway, Assistant Director
Lt. Col. Richard C. Lunger, Staff Consultant

Military Operations Subcommittee, House Com. on Government Operations

Herbert Roback, Staff Administrator.

Atomic Energy Commission:

John McCone, Chairman **
John Graham, Commissioner
Dwight Ink, Assistant General Manager
Cecil King, Assistant to the Chairman

* Senator John O. Pastore in October 1960 also visited Thor bases in the United Kingdom and United States Custodial Units [redacted] DOE 6.1(a)
** Chairman McCone was not on the entire trip but only during the period Dec. 5-8, 1960. [redacted] DOE 6.1(a)

Dr. Harold Agnew, Alternate Division Leader ***

Department of Defense:

Col. Robert Partridge, US Army, USAREUR
Col. Carlos D. Bennet, US Air Force, SHAPE
Lt. Col. Emery D. Taylor, US Air Force, USEUCOM
Lt. Col. Joseph Boland, US Air Force, Office Legislative Liaison

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***Dr. Harold M. Agnew, Alternate Division Leader W-Division, Los Alamos Scientific Laboratory, participated on the trip as a scientific advisor to the Joint Committee, having previously been appointed as a consultant to the Committee in connection with the study of Civilian-Military Relationships.

C. Background of Study and Trip

The plan for visiting overseas military installations for firsthand knowledge of the manner and extent of United States cooperation with our allies in the use of atomic weapons was developed as a part of the over-all review being conducted by the Committee in the nature of a Staff Study of Civilian-Military Relations in the Field of Atomic Energy (see Appendix 2 for outline of study).

During the course of the past several years, there has been a noticeable change in the relationship between the civilian and the military agencies of the U. S. Government represented by the Atomic Energy Commission on one side and the Defense Department on the other. This has manifested itself in many ways but in no way more pronounced than in the area of custody of atomic weapons.

Custody of nuclear weapons by AEC was originally considered primarily as a method and manifestation of civilian control. The storage sites where the atomic weapons were stored were the responsibility of AEC as the civilian agency. The President, in the 1946 Act (Sec. 6) and the 1954 Act (Sec. 91 b.) could authorize the AEC to transfer weapons to the Defense Department. Through a series of steps, this authority has led to full military custody of weapons. First, AEC civilian "custodians" were dispatched with certain high yield weapons deployed to the military. Later, these civilian custodians were removed and military officers were designated as agents of the civilian AEC for purposes of maintaining "civilian custody." Finally, in 1959, the President granted full possession and custody to the DOD of all weapons transferred to it regardless of yield.

During this same period there also has been a marked change in the manner and degree of cooperation with other nations in the military uses of atomic energy. Part of the change has been occasioned by legislative changes permitting greater cooperation in these respects with our allies. Other changes, however, are resulting from independent executive, or more specifically, military decisions.

The original Atomic Energy Act of 1946, the McMahon Act, first by interpretation and then by specific amendment in 1951, prohibited the United States from exchanging with any other nation Restricted Data on design and fabrication of atomic weapons. It also prohibited the transfer of fissionable material by the United States to another nation. The Atomic Energy Act of 1954, recognizing the need for some cooperation with our allies, amended the law to permit, under appropriate safeguards, communication to another nation or to a regional defense organization of defense plans, the training of personnel and the evaluation of the nuclear weapon capabilities of potential enemies. Design or fabrication information concerning atomic weapons which could be communicated was limited to their external characteristics, effects, and the systems employed in their delivery or use, provided the data did not reveal important information concerning the design or fabrication of their nuclear components. The Atomic Energy Act of 1954 also prohibited the transfer to another nation of any nuclear material for military purposes.

Notwithstanding the limitations imposed by the Atomic Energy Act of 1946 and 1954 on the degree to which the United States could cooperate with its allies, both laws contained provisions recognizing that future events might necessitate a greater degree of cooperation. Accordingly, the McMahon Act in section 8 (b) and the 1954 Act in section 121 provided that . .

> ". . . any provision of this Act or any action of the Commission to the extent and during the time that it conflicts with the provisions of any international arrangement made after the date of enactment of this Act shall be deemed to be of no force or effect."

An international arrangement is defined in section 11 l. as:

> "l. The term 'international arrangement' means any international agreement hereafter approved by the Congress or any treaty during the time such agreement or treaty is in full force and effect, but does not include any agreement for cooperation."

It was therefore possible under both the 1954 Act and the prior law for the United States if it wished by means of an "international agreement" approved by the Congress or by a treaty ratified by two-thirds of the Senate to cooperate to the fullest extent possible with an ally. Not only atomic weapon design information and nuclear material for use in weapons could thus have been made available to other nations but by the means specified above the law permitted and still permits the transfer of atomic weapons by the United States to its allies.

Following the NATO Council Meeting in December 1957, and as a result of the Russian Sputnik, the Executive Department in January of 1958, requested certain amendments to the Atomic Energy Act to permit greater military cooperation with our allies. Accordingly, in the 85th Congress, 2nd Session, the Atomic Energy Act of 1954 was amended to permit under carefully stated conditions and safeguards greater cooperation between the United States and its allies in the exchange of atomic energy information and material for military defense purposes. The amendment passed by the Congress and signed by the President as Public Law 85-479 on July 2, 1958, made possible greater cooperation with our allies by permitting wider exchange of military information and material as follows:

1. Material, including non-nuclear parts of weapons, non-nuclear parts of weapon systems, military reactors, and nuclear materials for use in military reactors and weapons;

2. Classified information (Restricted Data) of a nature to assist an individual nation or regional defense group such as NATO to improve its training and prepare for mutual defense; and

3. Classified information (Restricted Data) of a nature to assist another individual nation to improve its atomic weapon design, development or fabrication capability, and concerning military reactors.

Under the Atomic Energy Act of 1954 as amended by Public Law 85-479, transfer of nuclear material for atomic weapons use and communication of sensitive Restricted Data concerning atomic weapons may be made only to

has made substantial progress in the development of atomic weapons and where the material or information is necessary to improve that country's atomic weapon design, development, or fabrication capability. Similarly, non-nuclear parts of atomic weapons may be transferred only to a nation that has made substantial progress in the development of atomic weapons. For all intents and purposes this wider degree of cooperation is limited to the United Kingdom.

Distinction is made as to less sensitive information and the less sensitive non-nuclear parts of atomic weapon systems which are not integral to a weapon but pertain to accessories necessary for operation and maintenance work and which do not disclose internal design information of the weapon. Less sensitive information to improve the training and operational readiness of defensive forces may be communicated to another nation or regional defense organization under specific conditions if the information does not contribute significantly to that nation's atomic weapon design, development or fabrication capability. Non-nuclear parts of atomic weapon systems under specific conditions also may be transferred to a nation with the provision that the transfer does not contribute significantly to that nation's atomic weapon design, development or fabrication capability.

Public Law 85-479 requires that prior to such cooperation the President must determine in writing that it will promote and will not constitute an unreasonable risk to the common defense and security and that such cooperation may take place only while the cooperating nation or organization is participating with the United States pursuant to an international arrangement, such as the NATO Treaty, by substantial and material contributions to the mutual defense and security.

In addition, Public Law 85-479 provides that all proposed agreements for cooperation involving communication of classified information or transfer of material for military purposes must be submitted to the Congress and referred to the Joint Committee and such agreements would not become effective if the Congress passes a concurrent resolution of disapproval within 60 days.

The Administration did not request and the Congress did not incorporate into law any specific provision to permit the transfer of a complete nuclear weapon or nuclear component to any nation. Nor did the Administration request any change in law affecting U. S. possession, custody or control of nuclear weapons.

In accordance with the more liberal 1958 amendments the President in 1959 submitted to the Congress seven Agreements for Cooperation with individual allies. During the hearings on these agreements testimony was given by representatives of the Defense Department as to the need for these separate Agreements for Cooperation in order that our allies might have sufficient information and material to permit necessary training of personnel and compatability of their delivery systems for the use of our weapons. Our weapons, at least the nuclear components it was explained, were to be kept under the control and possession of U. S. personnel at all times except in case of hostilities when they were to be released to the user nation. This was the so-called NATO AtomicStockpile concept as explained to the Joint Committee and the Congress at the time of the 1958 amendments and the 1959 agreements. Based on long and detailed hearings in 1958, it was understood that U. S. possession of nuclear weapons would be relinquished when and only when hostilities begin.

In November 1959, however, after these new agreements for cooperation had gone into effect, the Committee was informally advised of a plan whereby a U. S. nuclear weapon, the MB-1 (the "Genie" air-to-air rocket) including the nuclear component, would be mated [redacted] The Committee questioned the legality of such a plan and in December 1959 requested that no further action be taken until the Committee could review it further in light of the legislative history of the 1958 amendments and the 1959 agreements.

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Of particular concern to the Committee with respect to its legality was the prohibition of section 92 in the Atomic Energy Act of 1954.

> "Sec. 92. PROHIBITION. -- It shall be unlawful, except as provided in section 91, for any person to transfer or receive in interstate or foreign commerce, manufacture, produce, transfer, acquire, possess, import, or export any atomic weapon. Nothing in this section shall be deemed to modify the provisions of subsection 31 a. or section 101."

Person is defined in the Atomic Energy Act to include "any foreign government or nation or any political subdivision of any such government or nation or other entity." (Section 11 q.)

A legal opinion prepared by the Joint Committee Staff Counsel on this proposal is attached as Appendix 3.

While the Executive Branch did suspend negotiations on the MB-1 plan and subsequently dropped it for other reasons, it did, however, without notice to the Joint Committee or submission of an amended agreement continue with other plans to place U. S. nuclear warheads in IRBMs and fighter bombers owned and operated by foreign nations. Under a concept by which it claims continuation of U. S. custody, the Department of Defense subsequently approved and entered into certain "Alert Procedures" whereby nuclear weapons were authorized to be placed first on board planes of the

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[redacted]

In light of this background and the obvious changing concepts taking place as to the authority and responsibilities of the military vis-a-vis the civilian in the atomic weapons field in the United States Government and as to the cooperative arrangements between the U. S. and foreign governments in the military uses of atomic energy, it seemed particularly important at this time for the Joint Committee to review the overall civilian-military relationship.

At the same time it seemed appropriate and necessary for the Joint Committee to obtain personal knowledge as to how these Agreements for Cooperation and other arrangements with NATO and individual foreign countries were being carried out by visiting the military bases where they were being implemented and observing the actual operations.

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party indicating by country the units, locations, their respective weapons systems and missions as well as the date each was visited:

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Location	Date	Unit	Weapons System	Mission
London	11/29/60	U.S. NAVEUR	----------Briefing----------	
France				
Paris	11/30/60	SACEUR - General Norstad - Briefing and Meeting -		DOE 6.1(a)
Heidelberg	12/3/60	US AREUR	--------- Briefing ----------	

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Footnotes:

1/ Warheads had not been delivered to this location as of the date of the inspection.

2/ This installation was visited by only a portion of the Joint Committee party.

Following is a description of nuclear weapon systems and warheads being integrated into NATO and discussed in this report:

ROCKETS AND MISSILES

Honest John: A solid propellant, free-flight, surface-to-surface rocket with range to 27,500 yards (approximately 15 miles). Compatible with the Mk-7 and Mk-31 warhead.

Corporal: A supersonic surface-to-surface, radio-command-guided, liquid fuel, rocket-propelled, single stage ballistic missile with range to 75 miles. Compatible with the Mk-7 warhead.

Nike Hercules: A two-stage, supersonic, command guided, surface-to-air missile with an 85 nautical mile range. A secondary function of the missile is to attack surface targets at ranges up to 100 nautical miles. Compatible with the Mk-31 warhead.

Jupiter: A surface-to-surface, liquid rocket-propelled, inertially guided ballistic missile with range of 1500 miles. Compatible with the Mk-49 warhead.

Thor: A surface-to-surface, one-stage, liquid rocket propelled, inertially guided ballistic missile with range of 1500 nautical miles. Compatible with the Mk-49 warhead.

NUCLEAR BOMBS AND WARHEADS

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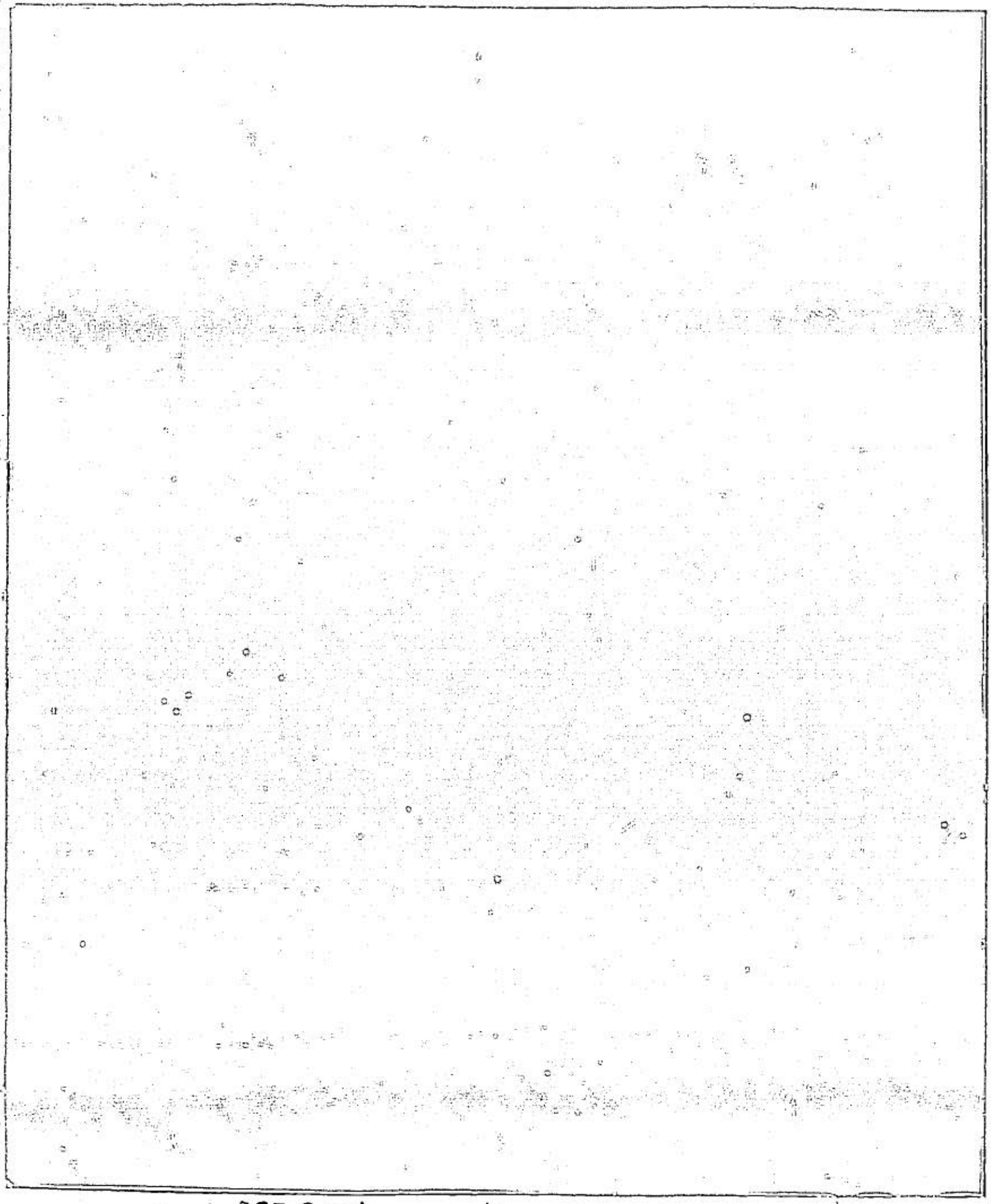
[redacted]



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II. SUMMARY AND EVALUATION

This summary includes the following sections:

A. Legal and historical basis of U.S. - NATO military nuclear arrangements.

B. Review of Military Arrangements being Utilized.

C. Description of Storage Sites and Summary of Custody and Control Arrangements by Weapons Systems.

D. Summary Description and Analysis of NATO Present and Future Military Capabilities.

E. Problems and Recommendations.

For details of the specific sites visited and over-all nuclear and conventional capability of NATO countries the reader should refer to Sections III and IV.

A. Legal and Historical Basis of U.S. - NATO Military Nuclear Arrangements

The Atomic Energy Act of 1954 declares it to be the policy of the United States that:

"a. the development, use, and control of atomic energy shall be directed so as to make the maximum contribution to the general welfare, subject at all times to the paramount objective of making the maximum contribution to the common defense and security; and

"b. the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise."
(Emphasis supplied.)
(Section 1, Atomic Energy Act of 1954, Public Law 83-703.)

The 1954 Act has for its purpose the carrying out of the above policies by providing for a number of programs including:

"a program for Government control of the possession, use, and production of atomic energy and special nuclear material so directed as to make the maximum contribution to the common defense and security and the national welfare;

"a program of international cooperation to promote the common defense and security and to make available to cooperating nations the benefits of peaceful applications of atomic energy as widely as expanding technology and considerations of the common defense and security will permit; and

"a program of administration which will be consistent with the foregoing policies and programs, with international arrangements, and with agreements for cooperation, which will enable the Congress to be currently informed so as to take further legislative action as may be appropriate."
(Emphasis added)
(Section 3, Atomic Energy Act of 1954.)

Although the 1954 Act somewhat extended the 1946 Act in authorizing cooperation with our allies in the military uses of atomic energy, the 1954 Act in turn was greatly broadened by the amendments to it by Public Law 85-479 in 1958. However, the areas of cooperation were limited by Sections 91 c pertaining to the transfer of atomic material and parts of weapons and weapons systems, and 144 b, 144 c pertaining to atomic information, and are required to be set forth in Agreements for Cooperation subject to Congressional review in accordance with Section 123. While the President is authorized from time to time to direct the AEC "to deliver such quantities of special nuclear material or atomic weapons to the Department of Defense for such use as he deems necessary in the interest of national defense" (Section 91 b), the Act contains the following all important prohibition:

"Sec. 92. Prohibition. -- It shall be unlawful, except as provided in section 91, for any person to transfer or receive in interstate or foreign commerce, manufacture, produce, transfer, acquire, possess, import, or export any atomic weapon."

In section 11 q. the word "person" is defined to include a foreign Government and its agents.

Words such as "control," "use," "possess," and "transfer" are frequently used in the Atomic Energy Act. Nowhere in the law, however, is there any reference to "custody," the basis on which the Defense Department in conjunction with SACEUR is now cooperating with foreign nations in the military uses of atomic weapons.

The concept originally evolved through the civilian-military relationship of the Atomic Energy Commission and the Armed Forces of the United States. Under the original 1946 McMahon Act and continued through the amendments of the 1954 Act, the ownership of all fissionable material was to be vested in the Commission although the President could from time to time direct the Atomic Energy Commission to transfer fissionable material or weapons to the Armed Forces for national defense. Despite claims of military operational needs, President Truman was reluctant to transfer from civilian hands to the military the control over thermonuclear weapons. Accordingly AEC civilian "custodians" were assigned with all high yield weapons dispersed to the military. The civilian AEC representative was considered as maintaining custody of the weapon for the Commission. After approximately one year of such an arrangement, the civilian representative was dispensed with and the commanding officer of the military unit holding the weapon was designated under a "two hat" concept as AEC custodian. In 1959 President Eisenhower eliminated this concept by transferring outright from the Commission to the Defense Department the weapons so dispersed.

During the Committee's visit to SHAPE in Paris and the various U.S. commands in Europe, the concept of custody and control currently envisaged in the U.S.-NATO cooperative agreements was discussed. In his briefing of the Committee, General Norstad and his staff referred to two basic concepts underlining his understanding of U.S. required custody and control:

> "1. SACEUR, in his international capacity, will exercise positive control over the use of the U.S. nuclear weapons made available to this program. This control will be exercised in accordance with his atomic strike plan.
>
> "2. Custody is defined as the degree of U.S. control of access to U.S. nuclear weapons, to the extent that it would take an act of force to obtain either weapons or information concerning weapons without proper authorization."

General Norstad advised that this definition of custody originated within his own command but that it had been agreed to by "appropriate agencies of the U.S. Government." (See page 13, Norstad briefing.)

Justification for the terminology and concept of "custody" in lieu of other terms such as "possession" and "transfer" was based on the U.S. offer December 1957 to the NATO General Council by the late Secretary of State, John Foster Dulles, to the effect that the U.S.:

". . . . .would deploy nuclear warheads under U.S. custody in accordance with NATO defensive planning and in agreement with the nations directly concerned. In the event of hostilities, nuclear warheads would be released to the appropriate NATO supreme allied commander for employment by nuclear capable forces." (Emphasis added)

It might be noted that the December 1957 proposal was made shortly after the success of the first Russian Sputnik (October 1957) when the U.S. was still attempting to overcome the psychological advantage gained by the Soviets. It came at a time when it was feared that our allies were questioning continued U.S. superiority in science and weapon technology. Therefore the December 1957 proposal, which became the foundation for a change of fundamental policy and manner in which we would cooperate with our NATO allies, also became the basis for the "custody" concept which SACEUR, the U.S. Defense Department and the State Department has used.

By substituting the word "custody" for the word "possession" as set forth in section 92 of the Atomic Energy Act, the Defense Department has justified a broader control procedure than Congress intended or the Act would appear to permit. See section II E. at pages 48-50 for Joint Committee comments on this problem.

The Committee was informed that SACEUR's control policy consisted of reserving to himself, General Norstad, the sole military authority for the release of atomic weapons in Allied Command Europe. In addition, it included the initial selection and scheduling of targets for attack and the establishment of specific control arrangements for the employment of a quick reaction retaliatory force.

B. Review of Military Arrangements Being Utilized

1. Formal Agreements

There are today many different types of agreements and arrangements whereby the United States Government is cooperating with other nations in the military uses of atomic energy. They involve the exchange of Restricted Data information and material, the transfer of delivery systems, the stationing of military forces, the storage and maintenance of nuclear weapons, and the training of personnel. They include methods as to how nuclear weapons and information will be protected and how expenses will be shared.

Following is a list of these agreements by the names they are referred to by Defense Department and NATO personnel. Under each heading is a general summary as to what they cover.

a. Agreements for Cooperation

Formal agreements between the United States and an individual member of NATO (can also be with NATO directly) involving the communication of information or the transfer of certain types of equipment involving Restricted Data. This type of agreement is specifically provided for in the Atomic Energy Act.

Prior to such agreement certain findings must be made by AEC as well as DOD as to the adequacy of the nation's security, and the President personally must give his approval and determine that it will promote and not constitute an unreasonable risk to the common defense and security.

Under section 123 of the Atomic Energy Act, these agreements together with the approval and determination of the President must be submitted to the Congress and referred to the Joint Committee on Atomic Energy. They must lie before the Congress and the Committee for a period of 60 days while Congress is in session and do not become effective if during that period Congress passes a resolution of disapproval.

b. NATO Stockpile Agreements

NATO Stockpile Agreements between each user nation and the U.S. covering the introduction, storage, and employment of U.S. nuclear weapons. Included in these agreements are policy matters such as:

(1). Cost sharing and construction criteria.

(2). Custody, security and release of weapons.

(3). Maintenance and positioning of weapons.

(4) Logistical support of U.S. forces.

c. Storage Agreements

Agreements between the U.S. and individual host countries for the introduction and storage of U.S. nuclear weapons in support of U.S. delivery forces (as distinct from the foreign nation's forces).

d. Status of Forces Agreement

Agreements between the U.S. and individual countries covering the stationing of U.S. forces in NATO countries.

e. Service-to-Service Technical Arrangements

(1) These military service-level arrangements are supplementary to the NATO Stockpile Agreements (see 2 above) and are made between the U.S. Air Force, Army or Navy and the corresponding military service of the other nation.

(2) These arrangements cover such items as standing operating procedures maintenance and logistics support responsibilities for barracks, dependent housing, feeding, access roads, transportation, communications and U.S. and supported force responsibilities in the stockpile-to-target sequence of operations involving nuclear weapons.

Alert procedures which have been adopted between the Defense Department and individual foreign military services as to the operation of IRBM's and strike aircraft including the mating of nuclear warheads to the systems fall within this category.

c. Mutual Security Agreements

DOE 6.1(a)

These agreements cover the arrangements whereby weapon delivery systems are made available to individual nations, as, for example, [redacted] and the F-84F and F-100 airplanes to various NATO nations.

Of the numerous types of agreements and arrangements utilized, only the first one listed above, the Agreements for Cooperation, are authorized in the Atomic Energy Act of 1954. The others are not referred to in that Act, which was intended to be the controlling statute governing the development, use and control of atomic energy, including the handling of nuclear materials. The Atomic Energy Act of 1954 sets forth its purpose to provide for "a program of international cooperation to promote the common defense and security. . . . ." and "a program of administration. . . . .with international arrangements and with agreements for cooperation which will enable the Congress to be currently informed so as to take further legislative action as may be appropriate." (Emphasis added) (Section 3, Atomic Energy Act of 1954, as amended.)

Although the Atomic Energy Act recognizes the possibility of international arrangements other than Agreements for Cooperation, it specifically limits them to treaties and international agreements approved by the Congress. (Sections 11 (l) and 121 of the Atomic Energy Act of 1954, as amended.) These two additional methods of international cooperation, both of which also require notification to Congress and the support of the Legislative Branch, have not been used in cooperating with other nations in the military field despite the fact they have been in the law since the original McMahon Act of 1946. Instead there has been developed and instituted a bewildering array of arrangements and agreements not contemplated by the Atomic Energy Act. In addition to not being subject to Congressional review they are being consummated and implemented without the concurrence of the Atomic Energy Commission.

Following is a list of eleven NATO countries which indicates the type of agreement or arrangement we have with each and the dates on which they were signed.

STATUS OF AGREEMENTS AND ARRANGEMENTS
NATO SPECIAL AMMUNITION STORAGE PROGRAM

DOE 6.1(a)

	TECHNICAL ARRANGEMENTS		
	USAFE	NAVEUR	USAREUR
	9 Jul 59	(4)	12 Mar 59
	3 May 60	(4)	17 Jun 60
	(1)		(1)
			(2)
	10 Apr 60		7 Apr 60
	(1)	(4)	4 Apr 60
	11 Feb 60	(1)	10 May 60
		(4)	
	(4)		(4)

(1) Now being negotiated.

DOE 6.1(a)

(3) Arrangements for support of certain U.K. delivery systems and V-Force) now in force but over-all stockpile agreement being negotiated.

DOE 6.1(a)

(4) SHAPE advises that these arrangements are not required.

In addition to the NATO countries listed on the chart, the United States has

[redacted]

DOE 6.1(a)
DOS 1.5(d)

Through the various agreements and arrangements, the United States today in cooperation with its allies is maintaining armed forces with nuclear capability in numerous foreign countries. While some are United States forces, various cooperative arrangements have been developed involving non-U.S. nuclear forces.

2. Operational Arrangements

a. United States Operational Forces in Host Countries

The United States today has nuclear capable operating forces in Europe wherein our forces not only maintain custody and possession of nuclear weapons but in the event of hostilities would be the user force. The United States' SAC bases in England [redacted] are examples of this type of arrangement. NATO authority is not needed to use these forces and no Restricted Data need be made available to the host nation or to NATO in connection with them.

DOE 6.1(a)

The United States also has nuclear capable forces, both air and ground, committed to NATO within host countries. While authority to use these forces will derive through NATO, no Restricted Data need be made available to NATO or the host nation in connection therewith. Accordingly, no 144 b. Agreement for Cooperation is considered necessary under either arrangement. A Status of Force Agreement, for example, would be the authority for stationing of the Force and either a Stockpile Agreement or Storage Arrangement for storage of nuclear weapons in the country. As to the nuclear weapons stored [redacted] and England and assigned to SAC, we do not have a stockpile agreement with either but we do have storage agreements or arrangements.

DOE 6.1(a)

b. U.S. Arrangement with NATO Country for Forces not Committed to NATO

[redacted]

DOE 6.1(a)

c. U.S. Arrangement with Host Nationals for Forces Committed to NATO

The NATO Stockpile concept embodies a plan whereby U.S. nuclear weapons will be available to NATO allies in time of hostilities. The most common situation existing today is the arrangement whereby United States' owned warheads are to be maintained within a country for the use of that nation's forces committed to NATO.

[redacted] DOE 6.1(a)

d. U.S. Arrangement with Non-U.S. Forces in Other NATO Nations

[redacted] DOE 6.1(a)

II. C. Description of Storage Sites and Summary of Custody and Control Arrangements (by Weapon System)

In accordance with its cooperative plan to assist NATO forces in achieving nuclear capability, the United States has deployed weapons to NATO nations wherein they a - - g stored under U. S. "custody and control" at storage sites. Procedures have been adopted for different weapon systems whereby the non-U. S. forces are being trained and placed into operation under concepts that purport to maintain U. S. control and custody of the nuclear warheads.

1. Storage Sites

Under the NATO stockpile agreements, NATO nations agree to furnish a site and certain logistics support for U. S. nuclear weapons stored in their country and assigned for use by their own forces. Specific criteria have been prepared to which these sites must conform. Included is a requirement of a double fence with the outer perimeter guarded by security forces of the user nation. Entrance through the innermost fence is controlled by U. S. personnel. Non-U. S. personnel are not permitted inside the inner area unless under U. S. escort. Within the inner area are located the buildings, or as they are called, "igloos," in which the nuclear weapons are stored. There also are buildings in which U. S. personnel service the weapons.

The non-U. S. personnel are never permitted within the igloos in which the weapons are stored or the inspection and maintenance buildings within which the warheads are serviced. When the warheads are physically located within the exclusion area of the storage site, and particularly within one of the buildings, the U. S. has full possession and custody. However, as discussed herein, the actual U. S. control of security is exceedingly slim.

A United States enlisted man is stationed at the inner gate to control entrance to the exclusion area but he is not considered to have responsibility for security of the weapon, which is the function of the non-U. S. guards who patrol the outer perimeter. The following regulations pertinent to this are contained in The USCINCEUR Plan for Support of the NATO Special Ammunition Storage Program (Revised May 25, 1960):

"6. Concept of Custody

"e. A minimum of one U. S. custodian will be on hand at all times with weapons and classified material in storage sites; when such items are being transported; and when weapons are loaded on aircraft or mated with ready missiles.

"f. The U. S. custodian will not be used for security guard or sentry duty. The responsibility for providing installation security rests with the NATO forces being supported. An analysis of the custodial requirements in each case should dictate the method of operation.

"7. Concept of Security

"a. Security of nuclear weapons and all associated equipment is the responsibility of the NATO nation whose delivery unit is being supported. Non-US security forces will provide protection against subversive activities, attacks by enemy forces, saboteurs and paramilitary forces. In addition, protection will be provided against unauthorized visitors, observers, or curious sightseers whose presence would tend to undermine the overall security of the weapons and classified material."

Transportation of warheads in or out of the foreign country is the responsibility of the United States and generally is conducted by air or ship. Transportation by land within the foreign country, however, under the stockpile agreements is the responsibility of the user nation. Accordingly, the practice is for the warheads to be transported to and from the storage site by land vehicles owned and operated by the user nation but U.S "custodians" accompany each weapon so transported. Responsibility for the security of that weapon, as previously noted, has been placed on the user nation.

In transporting the weapon in and out of the storage site, the foreign personnel, we were informed, are permitted to pick up or deliver it within the exclusion area alongside of the igloo but always under escort and with a U.S. custodian present. In one case, however, it was noted that the foreign personnel assumed transportation responsibilities at the outer-most fence with U.S. personnel transporting the weapon from the igloo through the innermost fence to the outer perimeter.

2. Aircraft StrikeSquadrons

(a) Several terms are used in conjunction with U.S. custody and control, and should be spelled out. There are two states of alert that these squadrons maintain: Normal Reaction Alert, which requires planes and pilots to be able to react within three hours of orders to attack; and Quick Reaction Alert (QRA), which requires these designated weapon systems and crews on standby to meet a 15-minute scramble capability.

The authority for the release and expenditure of U.S. atomic weapons is contained in the so-called SACEUR/USCINCEUR R-Hour (RH-1-A) message. This is the U.S. authority through the United States Commander-in-Chief Europe to release the warhead and the NATO order to the non-U.S. personnel through Supreme Allied Commander Europe to attack. The USCINCEUR codeword is required to be authenticated prior to the release of U.S. atomic weapons. This is known as the R-Hour release procedures.

(b) USAF custodial detachments act as the U.S. custodian and are supposed to control access to and release of all nuclear weapons. No specific number of U.S. guards or custodians is required. Orders are: "A minimum of USAF personnel will be provided to insure that no lone individual ever has access to an atomic weapon, and to act as U.S. custodian in the storage/assembly building and with each weapon when outside the storage/assembly area."

(c) Under normal reaction, the USAF Custodial Detachment turns over to the user NATO nation a completely assembled weapon for loading on the strike aircraft after R-Hour, being responsive to the NATO alert system. The USAF custodial detachment has an alert officer on duty at the storage site during any NATO alert and will be on call at other times to coincide with unit reaction times and procedures. This alert officer receives and authenticates the SACEUR/CINCEUR R-Hour (RH-1-A) message, at which time he can then release U. S. nuclear weapons to the NATO strike forces to perform prescribed SACEUR missions. It is mandatory that the USCINCEUR codeword be received by this alert officer prior to the release of the weapons to the forces.

(d) For Quick Reaction Alert, weapons custody is handled somewhat differently from the above. As of January 1, 1960, all Air Force nuclear capable units assigned to NATO (both U. S. and non-U. S.) were directed by SACEUR to assume Quick Reaction Alert (QRA). The NATO Atomic Strike Plan requires that for every squadron of planes, two aircraft must be on QRA unless the squadron has less than 16 planes, in which case one plane only is to be on QRA. The planes are on the airfield--on a pad--with nuclear weapons aboard. They are situated in a separate area from other planes and are under guard of the non-U. S. nation's air force. Originally U. S. procedures required one U. S. armed custodian to be posted at each plane on QRA. Recently, however, this has been changed to permit one U. S. enlisted man to act as custodian for two weapons if the planes are situated within 100 feet of each other and nothing is between to obstruct his vision. No lone individual is supposed to have access to an alert aircraft with a nuclear weapon loaded. Personnel who are authorized access to these weapon systems are required to be accompanied and supervised by the alert pilot, an armament technician, and the USAF custodian. The USAF custodial detachment provides an alert officer on duty at the base at all times that the NATO strike unit is on QRA status. This alert officer receives and authenticates the SACEUR/USCINCEUR RH-1-A message as under Normal Reaction. He personally would notify the USAF custodian at the aircraft of the authority to release weapons, and then would go to the storage area to personally notify the USAF duty custodian of the authority to release other weapons.

(e) Custody and control in all non-U. S. NATO squadrons is the same, whether it be

[redacted]

DOE 6.1(a)

DOE 6.1(a)

At this time, a USAF custodian remains at the aircraft; the [redacted] alert pilot and crew who are on duty, as well as the USAF alert officer, are continuously in the alert area (usually in a building nearby) while the aircraft is on QRA. However, although the plane and weapon are kept on the field around the clock, the pilots are on duty only those hours during which, if they are ordered to attack, they can reach their targets in daylight. The U.S. custodian, an enlisted man, and the armed guards of the user nation are continuously on guard.

The remaining aircraft up to 70% of squadron strength are under Normal Reaction Alert, and are required to be able to react with weapons aboard within three hours if needed. Many of this number have pre-assigned missions; others will react as the situation demands. Identical custody and control procedures are employed on these aircraft and weapons as for the alert aircraft.

3. Intermediate Range Ballistic Missiles

DOE 6.1(a)

[redacted]

DOE 6.1(a)

The following discussion of the concept of custody and control as it applies to the [redacted] missiles will give some idea of the interpretation of U.S. custody and control of warheads as it is applied to IRBMs.

(a) General:

DOE 6.1(a)

[redacted]

A USAF Launch Authentication Officer (LAO) is on duty at each site twenty-four hours per day for the purpose of receiving and authenticating launch execution orders and to act as the custodian of warheads mated to missiles. His post is in an enclosed trailer where he can operate a panel controlling the three missiles at his site. Normally, the three missiles have warheads and re-entry vehicles mated to them. The USAF Launch Authentication Officer holds one of two keys necessary to fire the missile, which key he maintains on his person.

(b) Custody and Release of Warheads and Nose Cones: Nuclear warheads provided by the United States are supposed to remain in full United States ownership, custody and control in accordance with United States law. U.S. personnel receive, store, maintain, inspect, check out, and retain custody of all assigned warheads and nose cones. They also do the mating of the warhead to the missile.

United States custodial responsibilities relative to mated warheads at each launch position are fulfilled by means of continuous electronic monitoring by the USAF Launch Authentication Officer on duty twenty-four hours per day at each launch position. Originally, U.S. security and custodial safeguards required a U.S. guard to be posted at each missile launch site to prevent unauthorized access to the warhead. In addition the U.S. Authentication Officer was required to be on duty at the control panel. These guards are no longer considered necessary and have been removed except when the electronic monitoring system is inoperative, at which time a minimum of one additional USAF custodial guard is to be on duty for warhead surveillance at the affected launch position. At least two USAF munitions personnel are required to be present during operations involving the mating or de-mating of a re-entry vehicle with warhead, and during any maintenance or inspection involving the re-entry vehicle-warhead combination. During ground movement outside the main base warhead maintenance and storage area, all classified warhead/nose cone components are accompanied by a minimum of two USAF munitions personnel.

4. Honest John Weapon Systems

U.S. custodial detachments retain full custody of the nuclear warhead sections for the Honest John prior to receipt of an R-hour release message. Custody, as used in this case, is considered to mean full ownership, possession, and accountability for the weapons involved.

In peacetime, custody is maintained by keeping the actual warheads in storage igloos under lock and key. The keys are available only to certain members of the U.S. detachment. Finally a custodial guard of at least one man (but normally two, one of whom may be asleep) is retained over the locked igloo.

Under certain conditions such as periods of strained relations or during maneuvers, weapons may be removed from the igloos if authorized by CINCUSAREUR and moved by convoy to temporary exclusion areas. This situation may be authorized if an Honest John battalion must move to such a distance from its prescribed load of weapons that it would be unable to reach its weapons in case of emergency. Under these circumstances weapons will normally not be removed from the packing case, and will not be mated to the rocket motor. If and when warheads are thus moved and during routine administrative moves of weapons, U.S. custodial personnel accompany each transporting vehicle but the user nation does the actual moving.

Upon receipt of a properly authenticated R-Hour message, the U.S. custodian is authorized to release physical possession of the atomic weapons to the non-U.S. NATO delivery force commander for expenditure in accordance with SACEUR's atomic strike plan. Although possession is relinquished, U.S. ownership and accountability is retained until the weapon is actually launched. Moreover, custodians must be prepared to resume full custody, including possession, in the event weapons are recalled.

Custody is further affected by U. S. retention of the warhead firing plugs, which are essential to the functioning of the warhead. These plugs are required to be retained in a locked safe under close supervision of key personnel of the detachment.

Custody in this system also involves control of delivery systems. If the occasion arises when weapons must be mated to rockets and readied for firing, U. S. custodial personnel will retain possession of the firing plug, and in addition will not permit the delivery unit to insert closure plugs and rocket igniters. Thus the warhead is safe, and an inadvertent launch can be prevented by U. S. custodians.

5. Nike-Hercules

Custodial Measures. The full details of custodial arrangements for non-U. S. NATO Nike-Hercules delivery units have not been established by higher headquarters at present, since it will be some time before any non-U. S. NATO delivery units become operational. As an interim measure, however, custodial detachments under Hq. SASOM plan to accomplish custodial control in line with the general program described above for the Honest John, plus measures indicated hereunder.

For the same reason the alert status for Nike-Hercules units in NATO has not been prescribed. It is probable, however, that alert status will follow the U. S. pattern which generally involves a certain number of batteries or launchers in state one (ready to fire within 5 minutes), others in state three (ready to fire within 30 minutes), and the remainder in state four (ready to fire within 2 hours).

Those launcher sites involving the Nike-Hercules will have security guards and the prescribed fencing, lighting and other security features. U. S. custodial guards will maintain control over the access gate to the inner fence. Routinely there will be a minimum of one man on custodial duty and another present. Arming plugs for all nuclear weapons will be retained under lock and key by these custodians until receipt of a properly authenticated R-Hour message, at which point they will release the arm plugs, thereby releasing missiles and warheads for use in accordance with SALEIR's atomic strike plans.

Normally nuclear armed missiles will be kept in the building at the end of the launcher rails. Under these conditions no further custodial guards are required since access to the buildings is denied. During periods of training by either U. S. or delivery unit personnel, however, when the missile is on the launcher or otherwise accessible, two trained U. S. custodians must be present at each position.

Control to prevent inadvertent launch is accomplished by a number of steps. The final and most important step is that the U. S. custodians are not to permit the rocket motor igniter cable to be connected to the launcher arresting beam until an aircraft has been positively identified as hostile. (When it is located only minutes from the Iron Curtain and planes are flying at Mach numbers, it is difficult to understand how a plane will be positively identified as hostile.)

Finally a switch is available to the control officer which permits destruction of the weapon after launch if the launch should be unintentio

II E. Summary of Problems and Recommendations

1. Policy Considerations

In outlining and analyzing various problems and recommendations arising out of this study, a number of policy considerations and objectives (too voluminous for consideration in detail here) must be taken into account. Some of these, particularly those of an overall nature, are of interest to other Committees of the Congress, particularly those having to do with foreign relations and armed services.

Basic to any cooperative nuclear defense system with NATO is a recognition by ourselves (and a knowledge that our NATO allies recognize it also) that the United States possesses an independent nuclear striking force of some considerable effectiveness through the SAC force, the Polaris submarine fleet which is coming in, and hopefully the liquid and solid fueled Intercontinental Ballistic Missile systems located outside of the NATO area. (Whether the Soviet threat is such to negate this force is not clear.)

In analyzing the various problems and possible solutions, certain questions manifest themselves throughout. Among them are the following:

(a) How important to U. S. and NATO security is the U. S. - NATO nuclear weapons capability? (Particularly, what is the value of the "alert" system of combat readiness now in effect?)

(b) What are the risks of accidental and unauthorized use or detonation of nuclear weapons under present circumstances?

(c) What reasonable measures can be undertaken to prevent accidental or unauthorized use? i. e., How can <u>real</u> U. S. control be improved?

In analyzing such problems, it should be noted that by going to a system of more immediate combat readiness, the old concepts of U. S. possession, custody and control are being stretched beyond recognition. (The old concept involved separate physical possession by U. S. forces apart from the non-U. S. aircraft, rocket or missile.)

Secondly, in utilizing more advanced weapon systems in NATO, we must be alert to the fact that we increase the problem of maintaining the security of Restricted Data in the event of access to such weapons by the host or other nationals.

2. Summary of Operational Problems

The Committee during its trip was impressed by the capabilities and conscientiousness of the United States military men of all services with whom it came in contact. This was particularly true of the operational personnel, both enlisted and commissioned, who, despite difficult problems and in many occasions isolated assignments, seemed to be enthusiastic in their cooperation with foreign forces.

DOE 6.1(a)

The Committee was also impressed by the capabilities and cooperative spirit of some of the non-U. S. NATO forces. The United Kingdom [redacted] fighter squadrc particularly appeared to be well trained, and in discussions with our group gave every indication of supporting a joint program with the United States in opposing a military communist threat.

Notwithstanding these favorable impressions, the Committee was concerned by what it believes are serious problems affecting the operational capabilities of the U. S. - NATO atomic cooperative plan.

The following section discusses the principal operational problems encountered under the following headings:

DOE 6.1(a)

a. Vulnerability of [redacted]

b. Problems of [redacted]

c. Security and Protection of Weapons Design Information.

d. Problems of Protecting Nuclear Weapons Against Unauthorized Use.

e. Problems of Evacuating or Destroying Weapons.

f. Communication Problems.

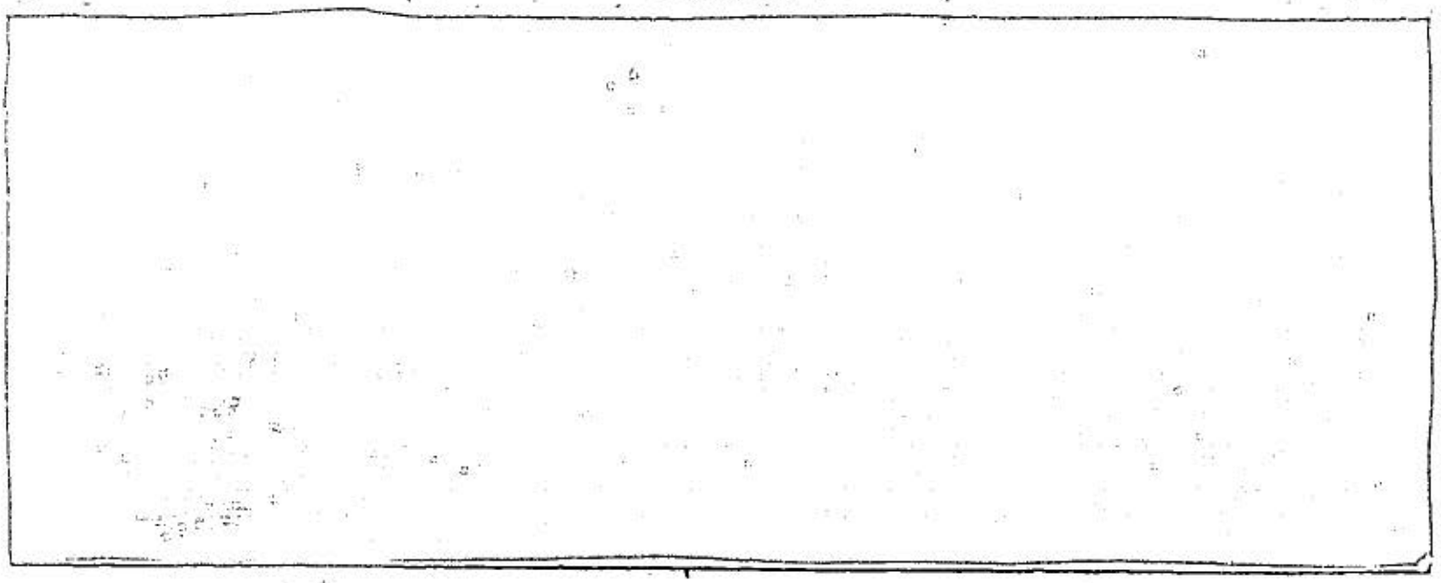
g. Training Problems.

h. Safety Problems.

i. Lack of Trained Personnel in Case of Accidents.

Following the initial discussion of each problem a Committee suggestion or recommendation is set forth.

DOE 6.1(a)

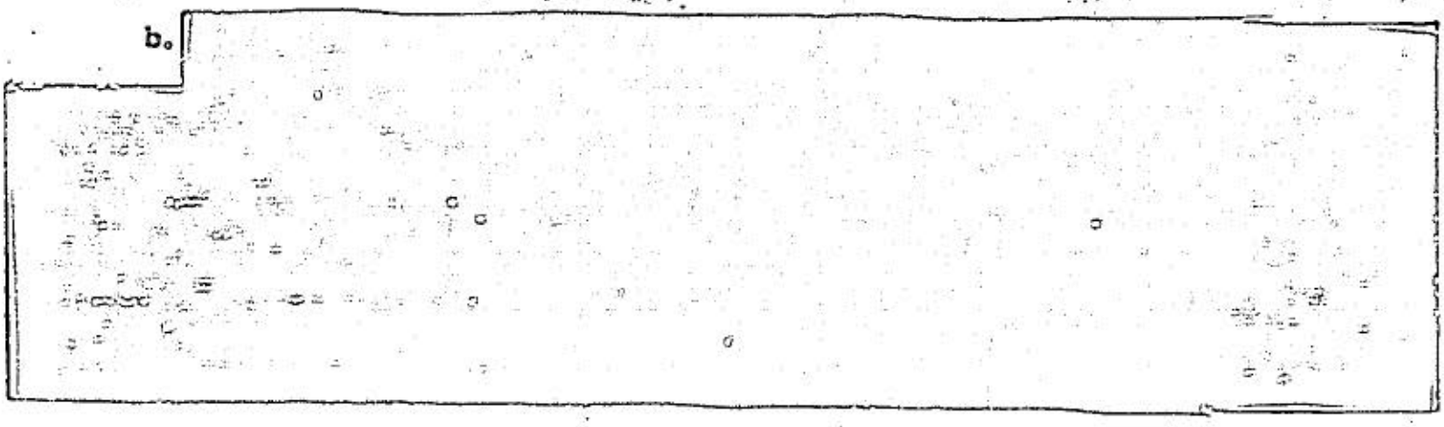


Recommendation

If possible, additional land surrounding the launching pad should be brought within the control area to a radius surrounding each launching pad exceeding the range of rifle fire. On the other hand, if, as was explained to the Committee, that land is difficult to obtain and it is infeasible to extend the controlled area, then some type of movable housing should be placed about each missile to protect it from possible rifle fire. It is noted that the Thor missiles in the United Kingdom, for example, have weather protective housing while at the horizontal position, which housing is on a track and is moved back from the missile at the time it is raised. From an engineering standpoint protective shielding against rifle fire could be provided for the Jupiter missiles while in a vertical position.

b.

DOE 6.1(a)



Compared with the solid fueled mobile Polaris missile or second generation Medium Range Ballistic Missiles offered by former Secretary Herter in his speech before the NATO Council in December 1960, the liquid fueled fixed Jupiters are obsolete weapons. Since they will not be placed in hardened bases and will not be mobile, their retaliatory value is highly questionable. In the event of hostilities, assuming NATO will not strike the first blow, the USSR with its ballistic missile capabilities logically could be expected to take out these bases on the first attack, which undoubtedly would be a surprise attack.

DOE 6.1(a)

[redacted]

Recommendation:

DOE 6.1(a)

[redacted] Such an assignment could be made before 1962 when the Jupiter system would be coming into operation. The Polaris submarine system would be mobile and thus a much better retaliatory force.

c. Security and Protection of Weapons Design Information

Since it is the declared policy of the U.S. not to encourage the addition of nations to the "nuclear weapons club" and the U.S. by law is prohibited from communicating important design and fabrication information to other nations unless they have made "substantial progress" (to date only the U.K. meets the criteria), great care should be taken in our cooperative operational procedures that this type of information is not compromised. To whatever extent an individual nation desires to advance its own independent nuclear weapons capability, we must assume its intelligence operations is being directed to obtain design information particularly of the more advanced type.

DOE 6.1(a)

[redacted]

Such a clandestine intelligence operation becomes easier to whatever extent the individual nation has access to, or control or possession of, a U.S. nuclear warhead. This is particularly true, for example, within the user nation where they have responsibility for transportation and furnish the transport vehicles and personnel and have responsibility for the security of weapons placed aboard their planes, as is occurring in the Quick Reaction Alert Strike Squadrons.

The single U.S. custodial guard assigned to maintain visual surveillance of the weapon (two planes and two weapons in some cases) is not adequate particularly when he is required to stand long watches in the open for periods extending as long as eight hours at a time.

DOE 6.1(a)

Experience has shown that instances of U.S. guards in regular U.S. forces "goofing off" for various reasons have not been uncommon. The Joint Committee staff learned, for example,

It would appear not too difficult for the "host" nation, if it so desired, to create circumstances whereby it could get access to U.S. nuclear weapons for periods of time sufficient to obtain some valuable Restricted Data, without necessarily causing an international incident. While addition of one or more U.S. personnel would not necessarily give any greater practical protection to the weapon, if the user nation determined to take it by force, the additional personnel would, no doubt, improve protection against clandestine intelligence operations.

Recommendation:

Custodial guards assigned to weapons being transported by non-U.S. personnel and in non-U.S. vehicles should be instructed to be particularly alert against any attempt by unauthorized personnel to obtain design information, as for example, by X-ray instruments. A minimum of two U.S. custodial guards should be assigned to any nuclear weapon not located within the locked building or igloo in a storage site, regardless of how many security guards have been assigned to it by the foreign nation.

d. Problems of Protecting Nuclear Weapons Against Unauthorized Use.

Closely related to the problem of protecting restricted data of U.S. weapons designs is the problem of preventing unauthorized use of nuclear weapons by personnel of the user or host country or others. Even if one accepts the concept of U.S. custody and control of nuclear weapons as currently being practiced and believes that it is in conformity with the law of the United States, there still appears to be a number of serious problems associated with this concept. Also while the problems appear to be basic to all U.S. nuclear weapons assigned to NATO they tend to vary in degree and importance with the different types of warhead delivery systems and with the individual nations with which we are cooperating.

Under the custody and control concepts in practice today and presently planned, the foreign nation to which the U.S. nuclear weapons have been assigned has responsibility for the security of those weapons. This, of course, may be acceptable when the threat to the security is in the nature of sabotage or attack by forces of another nation. Three principal problems must be recognized wherein the threat would emanate from within the host or user nation and would include:

1) individual take-over by a "psychotic" from the host country forces;

2) group take-over during a "colonels" revolution in the host country;

3) complete take-over by the existing government of the host country in a period of extreme tension.

The single-seat fighter strike planes currently on fifteen-minute Quick Reaction Alert, now appear to be most susceptible to unauthorized use by an individual or small group. The present liquid fueled Jupitor and Thor missiles,

which require fairly elaborate preparation and count down procedures, would be difficult to launch without authorization. However, "second generation" solid fuel medium range ballistic missiles, incorporating more simple firing procedures, will be more susceptible to unauthorized launching.

DOE 6.1(a)

At present, [redacted]

DOE 6.1(a)

In the case of the [redacted] units which the Committee observed, the pilots on fifteen-minute alert are quartered in buildings near their planes. The planes are out on a field either completely exposed to the elements or have minimum cover. The plane and weapon remain on the pad with only one U. S. custodian, an enlisted man assigned with personnel of the user nation to guard it. An authenticating U. S. officer is required to be on duty on the post but this does not require any observance or physical surveillance by him of the weapon.

The quick reaction alert aircraft are separated on the field and have assigned guards of the user nation patrolling the immediate area to protect them. The prime loyalty of the guards, of course, is to their own nation and not to the U. S. If the user nation or its personnel were to attempt to examine the weapon or take the plane aloft, the single U. S. guard would have to attempt to communicate with his superior, the authenticating officer, or other U. S. officials by telephone which is under control of the host nation. At the same time, he would have to attempt by physical means to restrain the violators. If the violation were to take place on the orders or by acquiescence of the user nation he would not be supported by the other armed guards present but might have to face them as antagonists.

It was further noticed during the Committee visit that the U. S. custodial guards on duty at the planes were for the most part young first-enlistment men rather than older experienced personnel. They are being assigned to guard duty in some cases for eight hours at a stretch.

Originally the alert procedures required a minimum of one U. S. custodian to be assigned for each weapon in alert status. By letter dated December 19, 1960 the Defense Department informed the Joint Committee that this requirement has been modified so that now one U. S. custodian may be assigned to "have custody of two weapons provided they are not separated by more than 100 feet, there are no intervening obstacles and adequate visual or physical surveillance of each weapon is possible."

The utilization of a lone U. S. armed guard standing an eight hour watch would appear to provide inadequate control of two nuclear weapons notwithstanding the additional security guards assigned by the other nation. It seems extremely doubtful that any man, no matter how dedicated to his duty, can stand guard duty for long periods of time, walking around the two planes day-in and day-out without becoming bored, dissatisfied, and inattentive to his duties.

With respect to the intermediate range ballistic missiles, current plans [illegible] a total of [redacted]

DOE 5.1(a)

Originally procedures required an armed U. S. guard to be assigned for each warhead mated with the missile in addition to the U. S. authenticating officer who held one of the two firing keys. Recently, however, the Defense Department has approved changes whereby the U. S. armed guards have been removed and the U. S. authenticating officer alone maintains custody of the warheads by monitoring a control panel which reflects the status of the warheads on the missiles. Normally, the authenticating officer will be responsible for three missiles and a corresponding number of thermonuclear warheads and will be the only American in the launching area. His post is in a trailer and all the other personnel (from one to six) in the trailer are non-American.

U. S. custody and control of the mated warheads depend solely upon the key carried on his person, or as pictured in various publications on a string around his neck. In the case [redacted] notwithstanding duly authenticated orders from the U. S. and from NATO. The United States and NATO control therefore, is not sufficient to assure compliance with the orders to launch. Conversely if the user nation or its operating personnel were to decide to launch a missile or remove its warhead for its own use, the single U. S. officer present easily could be overcome or rendered ineffective. As previously mentioned, this problem becomes even more acute when the more simple solid fuel missiles are introduced.

DOE 6.1(a)

Recommendations:

As discussed in other areas of this report, the United States should improve its evacuation capabilities and its ability to render inoperative nuclear weapons in the event they are under threat of unauthorized use. Coupled with this is the need for better and more reliable U. S. communications independent of the host or user nation communication channels.

If for military reasons it is necessary to maintain nuclear and thermonuclear warheads on quick reaction alert under the operational control of non-U. S. forces, some method or methods must be evolved to improve U. S. custody and control. Several methods seem possible through electronic means which involve arming or disarming weapons. As discussed in the general section of this report, the Joint Committee staff, prior to the Committee trip to Europe, requested Dr. Harold Agnew of the Los Alamos Laboratory, and Dr. John Foster of the Livermore Laboratory to consider means of arming or disarming weapons by:

1) adapting electronic or mechanical controls for present weapons;

2) developing new devices for improved weapon systems.

It would appear that both types of devices could readily be developed and produced.

Consideration should also be given to utilizing personnel from NATO countries other than the host countries for certain key operations - e.g., pilots, and authenticating officers.

c. Problems of Evacuating or Destroying Weapons

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Under the present NATO stockpile agreements, the non-U.S. user nation is responsible for transportation of U.S. nuclear weapons within its own country. This includes emergency evacuation in the event of internal disturbance or revolution. This can be a very serious problem unless U.S. forces have sufficient vehicles and other means for evacuation separate and distinct from those of the non-U.S. nation.

DOE 6.1(a) [redacted]

The necessity of being able to evacuate nuclear weapons from a site is not an idle or abstract question. The Joint Committee group was informed, in response to its questions, [redacted] the United States forces were ordered to evacuate nuclear weapons on two occasions. However, the orders were subsequently revoked before the evacuation took place. From a practical point of view, however, what is required is the ability to safely and quickly destroy nuclear weapons in the event of a threat to their security. In the event of an emergency, local custodial unit commanders are authorized to destroy weapons to prevent their capture. However, there are varying estimates as to the time required to do this, depending upon the type of warhead, the weapon system and the number of men available. SHAPE estimates, for example, that it would require approximately [redacted]

DOE 6.1(a)

Recommendations:

In every instance in which the U.S. has nuclear weapons stored or available in the nation, independent U.S. vehicles should be available for emergency evacuation of these warheads notwithstanding any responsibility on the part of the user nation to furnish transportation. At the same time to whatever extent the United States is furnishing non-nuclear assistance to a nation through military assistance programs and the nation has agreed to use the equipment in support of U.S. forces, that equipment should be specifically earmarked for the U.S. unit it is to support.

Every effort should be made to shorten the time required to safely destroy weapons when this destruction is necessary to prevent them from falling into the hands of unauthorized or hostile forces. Particular attention should be given to possible design features which might be incorporated into these weapons to improve this capability.

f. Communication Problems

In accordance with the NATO Atomic Plan, SACEUR in his international capacity reserves to himself the military authority for the release of nuclear weapons in Allied Command Europe. No atomic weapon is supposed to be released for use until the user nation is authorized by NATO and the U.S. custodian has also been authorized separately by the U.S. Any such system of command control is completely dependent upon communication links. At present, four special teletype nets and high

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frequency radio circuits interconnect SHAPE and the present atomic delivery forces. Four high-powered transmitters are available to broadcast alert messages on four different frequencies and, according to General Norstad, most organizations down to air-base level can monitor one or more of those frequencies. General Norstad has also advised that SHAPE has submitted to the NATO Standing Group a requirement for a more rapid alerting capability to include "a data processing system that will provide acceptable alerting capabilities for the atomic forces."

In addition to the command control from Headquarters, communication links are required particularly with outlying forces such as deployed Honest John units in order that the field commands can in emergency conditions alert headquarters as to accidents, local disturbances, or threats to U. S. security and custody. As of now, U. S. custodial detachments are dependent for communications whether radio, telephone or teletype on the non-U. S. communication facilities.

In one instance the Committee was informed of great difficulties encountered by a U. S. custodial support unit [redacted]

DOE 3.1(a)

Recommendation:

In view of the extreme importance of command control, every effort should be made to improve the NATO communications system. Wherever possible, the U. S. custodial detachments should attempt to maintain, operate, and monitor communication systems separate and independent from those of the non-U. S. forces. This should be in addition and not in lieu of NATO communication networks.

g. Training Problems

Inherent in the design of any weapon system is the assumption that the user of the system will be properly trained and have at his disposal ready reference to technical manuals covering the weapon system.

The reliability and safety of any weapon system could be materially reduced if necessary technical manuals are not properly interpreted and translated into a language in which the user is fluent. It was determined by our visiting group that at the present time technical and operational manuals have not been translated into the host nation's language. It is contemplated that if and when manuals are translated it will be done under the jurisdiction and at the expense and initiative of the host nation. The U. S. does not anticipate even accepting the responsibility of checking the host nation's "galley proofs" to insure that proper interpretation has been applied in the translation. It was stated that errors would be detected during quarterly inspections. It is the belief of the Committee that this procedure is not adequate and could lead to serious difficulties.

The history of the [redacted] Upon completion of the course, which took much longer than anticipated, [redacted]

DOE 3.1(a)

and translators of manuals. From the Committee's visit it was apparent that although [redacted] may have been taught in English to operate the Jupiter system,

DOE 6.1(a) [redacted]

Recommendations:

To guard against possible misinterpretations and resulting errors in operation it would seem best to conduct all training in the language eventually to be employed by the user nation.

Training aids and operational manuals should be in the user nation's language. The U. S. in furnishing technical manuals should if at all possible have them translated into the user nation's language. When and if translated by the user nation, the United States should at least check the translated copy for accuracy.

h. Safety Problems

DOE 6.1(a) The [redacted] nuclear weapon currently assigned to NATO and being mated to non-U.S. airplanes on Quick Reaction Alert was not designed with the "airstrip alert" as one of its military characteristics.

In June 1960, [redacted] the procedure having been approved by the Defense Department without conferring with the Atomic Energy Commission as to safety. At the DOE 6.1(a) time of the Committee visit in December 1960, it was understood that the U. S. Air Force Weapon Safety Board had not completed a study of the [redacted] non-U.S. strip alert configuration.

It was the opinion of Dr. Harold Agnew of the Los Alamos Weapon Laboratory, who accompanied the Committee on its trip, that there is a possibility of accidental detonation because of the manner in which [redacted] is being used. It was his DOE 6.1(a) considered opinion that a trajectory sensing device to prevent it from being accidentally nuclear detonated while on the plane should be installed immediately if it continues to be used with the [redacted]

Recommendation:

Trajectory sensing devices should be installed immediately in [redacted] Mark 7 weapons DOE 6.1(a) [redacted] if weapons continue to be loaded on planes with the nuclear components in the inflight insertion mechanism. Safety requirements should be stringently reviewed for all procedures being planned under the NATO Atomic Plan and the Atomic Energy Commission weapon specialists should participate in the review.*

*By letter dated January 13, 1961, the AEC alerted the Defense Department of this possible danger and recommended that the Air Force Safety Study be completed as soon as possible. The AEC also instituted engineering design and production DOE 6.1(a) efforts to modify the [redacted] bombs by incorporating a velocity sensing device.

1. Lack of Trained Personnel in Case of Accident

In many areas visited, little or no Explosive Ordnance Disposal (EOD) capability was available in the event of accidental radioactive contamination resulting from fire, carelessness, or accident or in the event of threat to the custody and security of the weapon requiring emergency disposal.

DOE 6.1(a)

The need for additional trained men was mentioned on several occasions.

As mentioned previously, it is very important that in the event of an accident prompt measures be taken for the safety of troops and the populace. Any mishandling of an accident could result in pressure to remove U. S. nuclear weapon support in such a country or other countries. This is particularly important at the present time in

DOE 6.1(a)

view of the fact that when to be politically expedient to inform their people that nuclear weapons are now within their country. It is noted here that the State Department representatives tried to discourage the Committee group from

DOE 6.1(a)

Recommendation:

Every effort should be made to increase the number of U. S. personnel trained for EOD capability and to have these personnel located within close proximity to every site at which U. S. nuclear weapons are situated. In view of the increased number of weapons being dispersed throughout Europe it is imperative that training of these personnel be accelerated in order that these needs will be met.

3. General Policy Problems and Alternative Arrangements

This trip, and the scope of the study of which it is a part, cannot of course encompass all of the many aspects of the relationships between the United States and its NATO allies. It is obvious that many aspects of the political and economic relationships, as well as some aspects of the military cooperation could not be covered.

In addition to the specific operational problems noted by the Committee there appears to be a number of other problems of a policy nature which go to the very basis of our over-all cooperative program with NATO.

a. Findings:

These problems as disclosed in our study may be characterized as follows (they will be discussed at greater length in succeeding sections):

(1) The trend in weaponry in the NATO system appears to confuse employment of nuclear weapons (a) for strategic deterrent; and (b) for tactical operations, a consequence of which is to encourage reliance on the use of U.S. nuclear weapons rather than conventional forces, particularly those of the "host" country.

(2) In carrying on this trend toward nuclear weapons in the NATO complex, there has been a failure to mesh U.S.-NATO strategy in terms of enemy targets and fallout effects with U.S.-national (SAC) targets and those of the British Bomber Command.

(3) In planning the NATO nuclear weapons systems there has not only been a failure to coordinate U.S., U.K. and NATO strategic and tactical plans, but there has also been a failure to establish requirements for weapons design to meet the unique and special needs of NATO. This is particularly noticeable in terms of available modern technology as to safety and control features and weapons effects.

(4) Finally, as has been discussed, there has been a reliance on foreign nations for the basic security of U.S. nuclear weapons, and the use of "fictional" means of U.S. possession and custody of nuclear weapons under certain circumstances.

The cumulative effect of these problems, in addition to raising grave questions as to particular aspects, is to raise the question of whether the entire NATO alliance should not be re-evaluated, at least in regard to its nuclear and other military aspects. These problems will be discussed in summary form in the succeeding paragraphs, and then will be followed by recommendations as to possible courses of action:

(1) The Trend Toward Nuclear Weaponry

The United States is significantly increasing the number of weapons it is disposing to NATO countries. In the past five years there has been greater than a 20 fold increase with more than [redacted] Authorization for twice the present dispersal to NATO countries has been granted to the Defense Department, according to information recently obtained by the Joint Committee, and it is understood that additional dispersal is currently being planned. DOE 6.1(a)

As the United States continues to increase the number of nuclear weapons in NATO countries and to assign more of these for the use of non-U.S. NATO forces, these countries may tend to cut back and not support their conventional forces. There may develop a tendency to supplement or replace their conventional capabilities with nuclear weapons. This could result in a danger to the NATO alliance in that it would make them feel less able to defend themselves against limited probes by USSR or satellite military forces. At the same time it could increase the likelihood of all-out nuclear war since NATO forces, lacking conventional capability, if they did react militarily would be forced to do so with nuclear weapons.

Major General William H. Nutter, Chief of Staff, HQ. U.S. Army Europe, in his briefing of the Committee in Heidelberg, Germany, December 3, 1960, gave as his opinion that NATO could not successfully withstand a Soviet attack today with conventional forces although the total gross national product and manpower of the European NATO countries exceed that of the USSR.

Both former Secretary of State Herter and General Norstad have recognized the need for our European allies to maintain conventional military capability. In his recent offer of Medium Range Ballistic Missiles to the NATO Council on December 16, 1960, Mr. Herter referred to General Norstad's position and called attention to the need for conventional capability. He stated:

> "In speaking to the NATO Parliamentarians, General Norstad said that 'our forces must have a substantial conventional capability,' that they should be 'made up of army, navy and air force elements of suitable types and equipped with a balance of conventional and nuclear weapons,' and that 'the threshold at which nuclear weapons are introduced into the battle should be a high one.' Unless all NATO shield goals are substantially achieved, NATO Military Commanders will not have the flexibility of response that will enable them to meet any situation with the appropriate response."

Although the need for additional conventional capability is apparently recognized, as evidenced by the above and other statements, the Joint Committee group found indications that nuclear weapons are tending to supplant conventional weapons in some areas. At one location there was no conventional ammunition for dual purpose equipment, although a large number of nuclear weapons were available. In another sector near the border of the Iron Curtain, the Committee was informed that there

was no conventional army capability available to resist Soviet thrusts. This sector apparently relied solely on nuclear capability to resist limited communist aggression.

(2) Lack of Coordination on Targets and Fallout Between U.S.-NATO Nuclear Forces, U.S.-SAC, and British Bomber Command

During the Committee's briefing at SHAPE on November 30, 1960 Committee members and AEC representatives inquired as to the manner and degree that NATO coordinates its atomic strike plan with the United States SAC and United Kingdom Bomber Command to prevent excess radioactive fallout and unnecessary duplicating effort. Although reference was made to a "restraint" program which NATO had been working on to limit radiation in satellite and friendly nations, there was no clear explanation of whether and how NATO integrates its planned nuclear attacks with the strategic plans of the U.S. and the U.K. The lack of such coordination was confirmed by General Norstad's staff during the trip.

Such integration of course is important (and will increase in importance as NATO atomic capabilities continue to grow as planned) to prevent duplication of effort which is wasteful of nuclear warheads and weapons systems, not to mention unnecessarily dangerous to personnel. Duplication or overlapping of nuclear attacks also would result in unnecessarily increased local and worldwide fallout. Subsequent correspondence from General Norstad indicates that some coordination is being developed.

(3) The Lack of Establishment of Up-to-date Requirements Utilizing the Most Modern Weapons Technology

The U.S. in its cooperative program with individual NATO nations has made available a number of different weapon systems and nuclear warheads. These involve the

DOE 6.1(a)

all with nuclear capability, are being planned for these countries. In addition plans have been made and the Joint Chiefs of Staff has approved procedures whereby U.S. nuclear weapons would be placed aboard foreign warships.

The weapons and weapon systems that are being transmitted by the U.S. to specific NATO countries are not necessarily the best weapons or systems for each country for the purposes of the NATO alliance. For example,

DOE 6.1(a)

coverage if they were to be placed further eastward. However, for reasons of logistics and cost, the launching sites were selected close to [redacted] DOE 6.1(a)

[redacted] DOE 6.1(a)

Quick Reaction Alert were never designed for such operation and some question has been raised concerning the safety of the operation. In addition, the control panel in the cockpit for this weapon is quite complicated compared with more modern type warheads. This is a particular disadvantage when one realizes the pilots are foreign and may have difficulty in undergoing training by English speaking instructors.

No procedures have been established under which the unique requirements of NATO can be integrated into the design and development of the warheads or even the modification of existing warheads being assigned to NATO. Such aspects as means of combat readiness and protection against accidental or unauthorized use do not appear to have received sufficient technical consideration.

b. Recommendations

Recommendation 1. General - The Need to Re-Evaluate NATO Nuclear Weapons Systems

The Committee believes there is a need for the United States to re-evaluate its NATO relationships, including particularly our policies and commitments concerning nuclear weapons. Of necessity this would involve a consideration of NATO strategic and tactical objectives and the proper role of nuclear weapons (large and small) therein.

Therefore, the Committee recommends that a re-evaluation of NATO weapons systems be initiated at an early date in conjunction with the proposed study outlined in the final recommendation of this report (see page 61.).

In making this recommendation the Committee is motivated by the fact that the original concept of NATO as a primarily defensive force has been and is being drastically changed by the addition of intermediate-range and high-yield thermonuclear weapons. Reliance on these megaton weapons tends to supplant reliance on convention weapons. It also blurs the distinction between low yield field weapons for NATO tactical defense as distinguished from strategic deterrent purposes. The Defense Department policy of assigning nuclear weapons to various NATO countries, under different types of arrangements, has served to provide NATO with a strategic capability never envisioned in the original concept.

From time to time the Committee has questioned some of these arrangements as going beyond the intent of Congress as outlined in the Atomic Energy Act of 1954 as amended. IRBM missiles with thermonuclear megaton warheads and ranges up to 1500 miles have already been made available. The deployment of additional missiles of this nature is presently being planned and executed. Arrangements have also been entered into whereby kiloton atomic bombs are now on 15-minute alert on foreign-owned planes. Further commitments have been made for the deployment of thermonuclear megaton bombs aboard foreign-owned aircraft on a 15-minute alert status.

The Committee recognizes that the interest of international amity may prevent the complete reversal of past actions. Nevertheless, it is believed that the change in concept represented by present arrangements should be thoroughly evaluated in view of the fact that it has occurred through a process of creeping evolution rather than as a result of a clear-cut policy decision.[1/] Controversy as to the respective meaning of "strategic" and "tactical" does not alter the fact that a change in concept has occurred and that longer range high-yield weapons have been added to short-range defensive weapons.

If after thorough review it is determined that NATO should in fact serve a strategic deterrent function (i.e. embrace long-range high-yield weapons as well as short-range defensive weapons in fulfilling the purpose of maximum deterrence), certain weapons systems should be re-oriented in view of the essential requirement that a deterrent system must survive a first-strike attack and still be operational. Present NATO missile systems with a strategic capability are lacking in this essential.

The presently deployed IRBMs are liquid fueled and thus more complicated to operate and slower in response time; they are tied to fixed installations, subject to pre-attack pin-pointing by the enemy. The Committee believes the presently deployed Jupiter missiles [redacted] should be replaced by a less complicated and mobile solid-fueled missile system.

DOE 6.1(a)

Pending replacement, measures should be taken to protect the Jupiter missiles from sabotage. The planned deployment of additional Jupiter missiles [redacted] should be cancelled in favor of assignment of mobile solid-fueled missiles such as Polaris and MRBMs. [redacted] as well as subject to full U.S. control.

DOE 6.1(a)

DOE 6.1(a)

The Committee also observes that the liquid fueled Corporal missile now deployed in or planned [redacted] for field use is not a dependable weapon and should be replaced by a more reliable weapon system.

The Committee observes further that NATO forces equipped with tactical nuclear weapons are now faced with a serious dilemma in the event of border transgressions by enemy forces employing conventional weapons. Since authority

1/ See p. 44, Conference on NATO Atomic Planning and Special Ammunition Storage Program held at SHAPE on November 30, 1960 for statement by General Norstad to JCAE members that neither he nor anyone in NATO has proposed a NATO strategic force.

must be received prior to the use of the nuclear weapons and because of the limited time element involved, the major policy decision as to whether such weapons will be used to counter border transgressions of this type must be made in advance of the event. Otherwise we would find ourselves defenseless because of a lack of conventional forces and equipment on our part. The Committee understands that no such policy decision has been made.

It would seem desirable to emphasize in the NATO system, an arrangement of dual capacity weapons which can utilize conventional warheads as well as nuclear warheads. This would include the 8 inch howitzers, the Nikes and the Davy Crocketts. Such weapons, particularly the howitzers armed with conventional warheads or shells, would also lend themselves to dual purpose training with troops of our foreign allies.

To carry out the defensive mission, the NATO defense system needs augmentation in terms of conventional weapons as well as nuclear weapons. The failure on the part of our NATO allies to meet their previous conventional commitments and our failure to insist on fulfillment of such commitments now present us with a situation where the argument for proliferation of nuclear weapons appears plausible. Notwithstanding the plausibility of such an argument, it would seem wise to pause and consider the possible consequences of such action. It would seem desirable if not essential, that the U.S. reconsider the proliferation of nuclear weapons in the NATO complex.

If it is determined that additional NATO nuclear capability is necessary, we should require as a condition of such a program that our NATO allies also furnish adequate conventional armament and manpower. If this is not done, we would be limited to a nuclear response for any type of military agression. (See finding No. 1 page 40 for reasoning.)

Recommendation 2. -- The Need to Coordinate NATO with SAC and U.K.

A major effort must be made to coordinate and integrate NATO atomic strike plans with U.S.-SAC and British Bomber Command plans. This is important today at the present level of NATO Atomic Strike Capability. If as planned NATO nuclear capability continues to increase through introduction of second generation Medium Range Ballistic Missiles, greater numbers of atomic strike airplanes and nuclear ground and sea forces such coordination will be indispensable to prevent waste of personnel and weapons systems and in the event of use, unnecessary increase in local and worldwide radioactive fallout. Effective coordination would also greatly reduce costs.

Recommendation 3. The Need to Establish NATO Nuclear Weapons Requirements Based on Current Technology

It would also seem essential as well as desirable that the U.S.-NATO nuclear weapon systems be re-examined with a view to incorporating the most modern weapons consistent with U.S. security and safety requirements. Instead of making NATO the dumping ground for obsolete warheads and weapons systems (for example DOE 6.1(a) [redacted] and the Corporal missile) and placing them in an "alert" position of 15 minutes readiness without adequate safety precautions, the United States should, in a rational and commonsense manner, establish what the NATO weapons requirements are, and utilize its modern technology at Los Alamos and Livermore to satisfy those requirements.

Thus, in relation to development of means of safeguarding U.S. weapons from accidental detonations or unauthorized use, the Staff of the Joint Committee suggested that the Los Alamos, Livermore and Sandia laboratories[b] cooperate in developing and adapting devices for these purposes. As a result of this cooperation the following progress has been made:

(a) On the problem of accidental detonations, it was indicated that the use of "sensing" devices will prevent accidents on the ground and when the weapon is "in flight." (A sensing device throws the "on" switch when the bomb or missile goes through its normal trajectory; i.e., when the velocity and pressure reach the correct amount, the sensing device closes the electronic circuits.) The DOE 6.1(a) [redacted][cc] It should be noted that a sensing device is of no value for an unauthorized launch of a bomb or a missile, but is effective against accidents.

(b) On the problem of unauthorized launching of nuclear weapons, it was pointed out that at Cape Canaveral the launch controllers have a radio control "in flight" destruction device. This is also true of Nike-Ajax weapons.

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[b] On the Staff's trip to Albuquerque on October 17 and 18, 1960, Mr. Ramey requested the Committee Consultant, Dr. Harold Agnew of Los Alamos Laboratory, to look into devices to prevent accidental or unauthorized use in the NATO nuclear system; (i.e., means of improving U.S. custody electronically), and discussed the problem generally with Dr. Henderson of Sandia Laboratory and representatives of DASA. In subsequent discussions before and after the NATO trip, Dr. Agnew indicated considerable progress in developing devices for this purpose.

At the meetings of the Air Force Scientific Advisory Board at Cambridge on October 24, 1960, Messrs. Ramey and Conway requested the Committee Consultant, Dr. John Foster of Livermore Laboratory, to also consider devices for preventing accidents and unauthorized use in the NATO system. Dr. Foster indicated he had considered these problems a few years ago, and would be very interested in resuming such work. In a briefing of Congressman Holifield and Mr. Ramey on December 15, 1960, Dr. Foster indicated progress on several approaches, including a very promising radical method.

[cc] See page 97 for discussion of action taken by AEC to correct this.

The staff has been advised that destruct devices in missile or aircraft itself are too easily tampered with by foreign nationals to be desirable. It has been suggested that the nuclear weapon itself should contain the safety mechanism. Various types have been suggested as follows:

(1) [redacted]

DOE 6.1(a)

(2) There exists today in an advanced design stage several possible devices which could be incorporated into existing warheads and bombs, including those already assigned to NATO, which would preclude the arming of the warhead without the receipt of a coded signal. The device would be such that it could be coded and changed from time to time manually and possibly by remote control. (It will be noted that the "arming" technique is the reverse of the "destruct" devices used at Cape Canaveral.)

The arming of the weapon could be accomplished in several ways, such as:

(a) By the weapons custodian inserting a coded signal manually or through a wire connection. This might be further developed to the point of pressing a remote control button in much the same manner as a television set is turned on and off remotely;

(b) A group of bombs or missile warheads could be under exclusive control of a remote arming center such as a U.S. custody area, or a nearby ship or submarine in the case of nuclear weapons [redacted]

DOE 6.1(a)

(c) The bombs or missiles in a whole country or region could be armed from a control center at SHAPE or from the U.S. A revolutionary long range device of this nature has been proposed by Dr. John Foster of Livermore and is currently under development for this and other purposes. Such a device might also be used for transmitting the "R hour" message, and other alerting communications. This device requires extensive research and development before feasibility can be assured.

It should be noted that devices and controls such as these discussed, actually would improve the combat readiness of U.S. weapons by having the weapon ready on call, but also much safer than at present.

It should be clear from this discussion that an urgent requirement should be established to develop such controls and devices, and a technical feasibility study made to determine the best system for (1) immediate adaptation into NATO weapons; and (2) long term NATO requirements.

Recommendation 4. The Need for High Level Technical Review and Advice by AEC Laboratories in Regard to NATO Nuclear Weapon Systems.

NATO today is not fully utilizing high level technical advice in its planning and review of its atomic weapons program. This is particularly true with [illegible]d to its weapons systems selection. While certain high level technical agencies have been established to assist NATO including the Nato Science Committee, the Armament Committee and Ad Hoc Working Groups, the Advisory Group for Aeronautical Research and Development and the SHAPE Air-Defense Technical Center, no permanent group from or liaison with the Atomic Energy Commission or its weapons laboratories has been set up. This lack of cooperation can result in serious problems. Early consultation with weapon design personnel could have resulted in certain suggestions to incorporate trajectory sensing devices [redacted] prior to being mated with foreign planes. For example, if representatives from the AEC or AEC laboratories had been conferred with, they would have been able to alert the Defense Department and NATO as to possible dangers particularly when the weapon was not designed for the use to which it would be assigned. Necessary modifications could have been incorporated at an early stage.

DOE 6.1(a)

The following measures are recommended:

(a) Prior to any assignment or use of a weapon in a weapon system or a new concept not previously stipulated at the time of the weapons design, the Defense Department and NATO should fully confer with the Atomic Energy Commission. Representatives from the AEC and its weapons laboratories should be appointed as technical advisors to NATO. These technical advisors should be fully utilized by the military representatives in their nuclear weapons planning. Through closer cooperation and liaison, requirements of NATO both on the part of SACEUR and CINCEUR can be explored and incorporated into weapons at an early stage in their development. With close cooperation it may be possible to design and develop weapons specifically for unique NATO requirements rather than attempting to adapt outmoded or inappropriate U. S. weapons and weapons systems to its needs.

(b) An ad hoc technical group from Los Alamos, Sandia, Livermore, and DASA should be immediately assigned to spend such time as necessary at NATO sites reviewing the problems raised in this study, as well as others which may exist.

Recommendation 5. The Need for Compliance with the Law, and Adequate Congressional Review of Cooperative Military Arrangements with NATO Countries.

It is the considered opinion of the Joint Committee that the State Department and the Defense Department have failed to comply with the intent of the Atomic Energy Act by the manner in which they have entered into International Arrangements for the possession, use and control of U. S. owned nuclear weapons and in the failure of the Defense Department to keep the Congress, through the Joint Committee, currently and fully informed.

As discussed in previous sections, there is serious doubt whether the facts of the limited possession exercised by U. S. custodial forces of nuclear weapons in "alert" positions of combat readiness (on planes on the pad and mated to missiles) are consistent with the requirements of section 92 of the Atomic Energy Act of 1954. This section prohibits any person, including a foreign government, to possess a U. S. atomic weapon.

Certainly such "alert" procedures are contrary to Congressional intent, and to representations made by the Defense Department to Congress at the time the law was amended in 1958. At that time it was represented that nuclear componets of warheads and bombs would be kept separate from the aircraft or missile carrier.

Moreover the means of placing such "alert" procedures in effect were carried on outside of the framework prescribed by the Atomic Energy Act of 1954, as amended in 1958.

Although the Atomic Energy Act of 1954 provides for a program of administration with international arrangements requiring approval by the Congress and Agreements for Cooperation subject to Congressional action as to the development, use and control of atomic energy (sections 3 f., 11 l., 123) the Executive Branch has entered into numerous international arrangements without notification to and approval of the Congress. At the same time and through a number of secret executive international agreements and arrangements as to the use and control of atomic energy not provided for under the Atomic Energy Act, it has limited the purpose and effectiveness of the statutory Agreements for Cooperation.

When one compares the various types of agreements and arrangements the United States now has with these various nations and the type and degree of our cooperation under them, one realizes the relative limited importance being attached to the legislatively authorized Agreements for Cooperation. In comparison it appears that our cooperation in the development of defense plans, the training of personnel in the employment of atomic weapons and the development of atomic operational capability is being conducted principally under arrangements other than the Agreements for Cooperation.

DOE 6.1(a) For example, [redacted] Jupiter IRBMs with United States warheads [redacted] Their crews have been trained by the United States, the warheads stored on the site and

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DOE 6.1(a) placed on the missiles [redacted] responsibility without any Agreement for Cooperation, or without even a Stockpile Agreement. So-called "Alert Procedure classified Secret, Restricted Data by the Department of Defense which govern the operation of these missiles and the respective responsibilities of the two countries in the maintenance of its alert status were approved by the U.S. Joint Chiefs of Staff and Office of the Secretary of Defense during 1960 without either an Agreement for Cooperation or Stockpile Agreement with that nation and without notice to the Joint Committee or concurrence of the AEC.

DOE 6.1(a) In addition, Honest John battalions, [redacted] are integrated with American nuclear capable forces [redacted] It was understood that the warheads for these shorter range missiles, similar to those assigned to other nations, were not to be mated, but to remain in the custody and possession of U.S. custodial detachments until hostilities. However, there was some indication that new "alert procedures might authorize mating of warheads to missiles in periods of "tension."

In each of the countries visited, it was found that little or no Restricted Data was being given to the foreign operating personnel (as distinct from higher administrative authorities), even when there was in existence an Agreement for Cooperation and the information had been transmitted by the United States Government to that nation. Certain questions occur: Why have higher administrative authorities withheld or delayed transfer of Restricted Data to the operational personnel? -- Does such delay effect the operational capability? -- Were the legislative provisions of the 1958 amendments to Section 144b necessary?

In only one type of weapons system observed under the NATO atomic strike plan has it been interpreted that an Agreement for Cooperation is required prior to the foreign user force achieving operational capability, and that is in the fighter bomber area, and then only in the final two weeks of training.

As further indication of the relatively limited extent to which Agreements for Cooperation control in international cooperation in the uses of atomic weapons, the U.S. to date has signed Stockpile Agreements [redacted]
DOE 6.1(a) [redacted] for atomic support of their forces without any Agreement for Cooperation with these nations. Also, prior to our Agreements for Cooperation
DOE 6.1(a) [redacted] we already had Stockpile Agreements with both countries including the detailed technical service-to-service arrangements between their Army and Air Forces and ours. As was previously noted, Stockpile Agreements apply to nuclear weapons for use by the foreign force.

Recommendation

1. The Executive Branch and Congress should recognize that there are serious doubts as to whether the present NATO alert procedures are consistent with U.S. law and Congressional intent. If it is planned to continue such procedures, or institute procedures which permit in point of fact some measure of joint possession or control over U.S. weapons, then the problem should be faced directly and the law should be proposed for change under established procedures; i.e., legislative hearings and debate.

2. The basic policies under which custody, possession and control of United States nuclear warheads are to be maintained should be contained in the Stockpile Agreements or other Government-to-Government agreements rather than in military service-to-service arrangements. The Government-to-Government agreements, in turn, should come under the requirements of sections 91 c., 144 b., and 123 in the nature of Agreements for Cooperation subject to Congressional review, or else as international agreements approved by Congress or as treaties. To the extent they contain classified annexes or details, like Agreements for Cooperation, classified parts need not be made public, but can be reviewed in executive session by the legislative committee or committees having responsibility.

In compliance with sections 202 and 3 f., of the Atomic Energy Act of 1954, the Defense Department should keep the Joint Committee currently and fully informed "with respect to all matters within the Department of Defense relating to the development, utilization or application of atomic energy." Major policy decisions, in particular, as for example the change in U.S. custody concept from separate U.S. maintenance and possession of warheads to the mating of the warhead to non-U.S. delivery vehicles in peacetime are matters of which the Legislative Branch through the Joint Committee should have been informed promptly at the time they were made. The January 1960 decision by SACEUR to place NATO atomic strike forces on Quick Reaction Alert with complete nuclear weapons aboard non-U.S. planes and missiles should have been brought to the Joint Committee's attention at the time or shortly before; not after the order had been implemented or as occurred, after the procedures had gone into effect in June 1960.

In accordance with its legal responsibility to initiate notification to the Committee, the Defense Department must recognize that it does not comply with the law when it fails to furnish information until after the Committee requests it or when the Committee has to obtain its initial information through other sources.

Recommendation 6. The Need to Re-evaluate the Basic U.S.-NATO Nuclear Weapon Cooperation Policy--Consideration of Alternative Arrangements

In the preceding pages, a number of problems primarily related to the current NATO weapons system have been discussed. These problems have been discussed from the standpoint of U.S. national interests under the Atomic Energy Act of 1954.

There are a number of alternative arrangements or plans with regard to the manner in which the United States might best cooperate with our NATO allies for the use of nuclear weapons for our mutual defense.

Objectives of NATO Weapons System

From the U.S. standpoint, it would appear that the NATO nuclear weapons system should serve the following objectives:

(a) Appropriate nuclear weapons should be available in sufficient numbers and locations to be ready for planned use when needed with as short a reaction time as possible.

(b) United States control should be sufficiently strong that the weapons will be used if and when proper U.S. authority determines they should. Concurrently and of equal importance is that they will not be used without United States approval either through inadvertence or unauthorized use.

(c) Nuclear weapons should be maintained, transported and stored in such a manner that the possibility of accidents resulting in contamination or nuclear detonation will be non-existent or at least kept to a minimum.

(d) Nuclear weapons and classified information pertaining to them should be protected against unauthorized persons obtaining important design and fabrication information.

The relative emphasis which should be given to such objectives should, of course, depend to some extent on international conditions of the time, as will be discussed later.

It must be recognized that from the standpoint of NATO as an international organization and of certain individual European NATO countries there are certain problems concerning the current U.S.-NATO weapons system. The principal problem mentioned by representatives of the State Department (and recognized in the NATO literature) is the fear by NATO countries that in the event of a Soviet attack in Europe that the U.S. will be deterred from releasing its nuclear weapons in accordance with NATO plans in the face of a Soviet threat to retaliate by destroying U.S. cities. The second problem mentioned

DOD 1.5(d)

The third problem from this standpoint is one of finding the means to keep NATO alive and functioning as an effective organization.

Whether or not these fears and problems are well founded, and whether any of the alternatives discussed will take care of them, will be touched upon in the succeeding pages.

The following possible alternative arrangements between the U.S. and NATO and host national countries would appear to merit consideration.

1. Use of a complete U.S. system of possession and custody.

2. Reversion to system of separate U.S. possession and protection of nuclear warhead or nuclear component apart from carrier as contemplated in 1958 amendment.

3. Continuation of current fictional custody arrangements, involving varying elements of joint possession and control of nuclear bombs and warheads between U.S. and "host" country in the NATO alliance.

4. Express joint possession arrangement in alert procedures between U. S. and NATO as a separate entity through multi-national NATO task force groups.

5. Transfer of nuclear weapons or control of nuclear weapons from U. S. to independent NATO task force.

6. Transfer of nuclear weapons to individual NATO countries.

1. Use of Complete U. S. System of Possession and Custody

During General Norstad's briefing of the Committee at SHAPE in Paris on November 30, 1960, it was pointed out that prior to 1957 the United States had several units with atomic weapon capability in Allied Command Europe. The United States furnished all the nuclear weapons and the delivery units, and was responsible for the security, custody and transportation of these weapons. While some Restricted Data had been made available to NATO in accordance with the limited 144 (b) Agreement entered into in 1955, which permitted NATO to conduct some planning for nuclear war, only the United States forces had operational capability to fight a nuclear war.

While the United States may not have had sufficient numbers of weapons available in Europe nor dispersed to sufficient locations prior to 1957, in relation to NATO military needs, the arrangement tended to give maximum assurance of United States control. It also complied with one of the basic requirements of the Atomic Energy Act of 1954 with regard to the United States possession of nuclear weapons and restriction against their transfer to other nations.

If the U. S. were to revert to a concept or arrangement under which U. S. forces alone (or with U.K. forces) would have nuclear weapon capability and the other NATO allies would be responsible to meet conventional war requirements, it would decidedly increase U. S. custody and control.

It also undoubtedly would have serious drawbacks. It would presumably require an increase in number of U. S. personnel, and result in criticism from our allies over their inability to resist Russian nuclear attack. Without some nuclear capability of their own or direct participation in the U. S. -NATO system we are told that they might continue to question United States promises to defend them as discussed in the preceding section.

2. Reversion to U. S. Separate Nuclear Capsule Systems of 1958

In lieu of a complete reversion to pre-1957 arrangements it might be considered desirable to revert at least to a concept of separate possession, and protection of nuclear warhead or nuclear component apart from the non-nuclear part of the weapon system as contemplated during the 1958 amendment hearings.* Under such an arrangement, the nuclear warhead or nuclear component, until hostilities begin, would be

*Hearings before the Subcommittee on Agreements for Cooperation of the Joint Committee on Atomic Energy on Amending the Atomic Energy Act of 1954--Exchange of Military Information and Material with Allies--January 29, 30, 31, February 4, 5, 27, March 5, 26, 27, 28, April 17 and May 28, 1958.

maintained in the actual possession of U.S. personnel. The armed forces of our allies would be trained in the utilization of these weapons, and would be given the weapon delivery system and, if possible, all portions of the weapon except the nuclear part.

DOE 6.1(a)

With the older type weapons, [redacted] weapon less the nuclear capsule to be transferred. [redacted] this is not possible and under such an arrangement the entire weapon, nuclear and non-nuclear components, would have to be held by U.S. forces.

In effect, this is the situation today in Europe with regard to the Honest John. As observed and as explained to the Committee, within NATO [redacted] are being trained in the use of this weapon system. The entire weapon system has been made available to them with the exception of the sealed pit nuclear warhead. The warhead is maintained by the U.S. custodial detachment in an igloo close by the non-U.S. operated Honest John battalion. In times of increased tension when the Honest John would be deployed, the U.S. custodial personnel also would be deployed with the warheads still in their possession. The warhead would not, however, be mated to the system until hostilities began and authority was received but would be kept in actual possession of U.S. personnel nearby. An accidental or unauthorized firing of a nuclear weapon is less apt to occur in such an arrangement.

DOE 6.1(a)

On the other hand, in certain type systems requiring quick reaction, as for example the ground-to-air Hercules system which also utilizes [redacted] such an arrangement has a disadvantage in that valuable time may be lost in mating the warhead to the system. The same is true for [redacted] with a fighter bomber or [redacted] with the Jupiter and Thor missile systems. If one waits until actual hostilities occur before conducting the mating it may be too late.

DOE 6.1(a)

The need for mating warheads to missiles or planes creates a problem of providing adequate safeguards against accidental or unauthorized firing. As discussed on pages 45 - 46, there are devices which can be operated manually or remotely to provide the required safeguards.

3. Continuation of present system of fictional U.S. custody with actual joint possession and control in alert positions.

When the U.S. maintained sole possession of nuclear weapons our NATO allies questioned whether or not the U.S. would release the warhead or nuclear component to them when needed, particularly if this involved potential destruction of U.S. cities. Now, however, with the warhead mated and U.S. possession having become fictional, the U.S. faces a different problem. Notwithstanding any agreement to await U.S. authority, the foreign user nation, if it determined to fire the nuclear weapon, it could do so quite easily by overpowering token U.S. custodial or security guards.

DOE 1.5(a) [redacted]

Even though one maintains that the user nation cannot on its own fire the weapon because a U.S. officer holds the second key or has not granted permission, it is equally true that the weapon cannot be fired if the user nation refuses to do so even though the United States authorizes it. Thus during the period it is mated to a non-U.S. weapon system the use of the nuclear warhead is subject to veto by either the U.S. or the user nation.

Accordingly, we could under this arrangement face a predicament in which the United States would be under attack or our Polaris submarines were being sunk, and the USSR might promise not to attack one or more of our allies as long as our allies refrain from firing or refuse to permit the firing of nuclear weapons from their land. Under such a blackmail threat it is conceivable that a user nation would refuse to permit firing of our nuclear weapons from its country and thus deprive the United States of a portion of its nuclear firepower.

On the other side of the coin is the situation which might arise when the host nation engaged in a local skirmish with a neighboring country or Soviet satellite and without authority from NATO or the United States decided to use the weapon.

DOE 6.1(a) [redacted] particularly would be vulnerable to such an action. Of similar concern would be the possibility that a military junta or Colonel's revolt in which one or another of the competing factions might attempt to take complete control over the weapons system, and use the weapon or threaten to use it against the other faction.

Here again the use of electronic remote control devices could substantially increase real U.S. control, as discussed on pages 45-46.

4. Suggestion for express joint possession arrangements in alert positions with adequate safety precautions

The possibilities of the host nation or a military clique within the host nation taking complete control of the weapons system may be lessened to some extent if the operating personnel are not nationals of the country in which they are located. For example, [redacted] DOE 6.1(a) or other NATO nations. It was with this thought in mind that the JCAE staff suggested, if it were necessary for military or other reasons to continue the joint possession and custody arrangements which actually exists today in Alert procedures [redacted] DOE 6.1(a) it might be better if instead of the cooperative arrangement being between the United States and the host nation that it be with the U.S. and a multinational task force or a task force from another NATO country.*

When the Joint Committee group was at the [redacted] it was indicated that the [redacted] had exchanged extended visits during the past year. It was indicated that the rotation of air squadrons among the NATO countries would not be unduly difficult. DOE 1.5(a) (d)

A disadvantage to any immediate use of multinational personnel would be the language and training problem, except possibly with aircraft pilots. It was pointed out that English is supposed to be an essential language among NATO pilots. However during its inspection of the [redacted] Fighter Bomber Squadron, the Committee noted that not all the [redacted] pilots were proficient in English. DOE 1.5(a) (d)

The training problem is difficult enough when all the operating personnel speak the same language and non-English training manuals have to be developed for their use. Language difficulties may become insurmountable in a multinational task force when the operators speak different languages. However, the sole objection to this arrangement voiced by a Defense Department spokesman at a JCAE hearing on June 24, 1960, that the varying eating habits of different nationalities would make the arrangement unacceptable would not, however, by itself seem to be insurmountable.

The State Department and General Norstad have also endorsed multinational organizations for a nuclear task force. In public speeches during 1960 (footnote) General Norstad made reference to a possible arrangement using a NATO nuclear task force within current custody concepts. In his briefing of the Joint Committee at SHAPE he discussed this idea, but conceded he had not completely worked it out in his own mind.

*See Memo from Executive Director J. T. Ramey to Senator Clinton P. Anderson, Senator John O. Pastore and Representative Chet Holifield, dated June 15, 1960

In his proposals for a NATO mid-range ballistic missile program, made at the NATO Parliamentary Council in December 1960, former Secretary of State Herter endorsed the idea of a multinational task force, specifically mentioning the use of "mixed manning to the extent considered operationally feasible by SACEUR."

One of the first "official" references to such a concept was made by General Norstad in a press conference on March 2, 1960 when he stated:

> ".....There have been a few developments of projects, a few flaps, a few rumors, a few difficulties and a few problems in the course of last year. I think I mentioned to you before that we were considering the establishment of a mobile task force in the Alliance. This would not be independent of other forces but it could be drawn from the forces and trained, organized, equipped, so it could be used as a multinational task force. (emphasis supplied)
>
> "Now there are problems and difficulties in this but we have now firmly decided we are going ahead in this field and will establish in the relatively near future, within the course of the next year, a force of brigade group or RCT strength in general -- which will start off initially on the basis of three battalions, perhaps three reinforced battalions....."

It should be noted that the multinational task force concepts of former Secretary of State Herter and General Norstad in his later speeches also involved some transfer of U.S. control over the release of weapons to NATO itself, as discussed in the next section. The type of multinational participation discussed in this current section, while retaining some U.S. control over weapons release, could lay the basis for possible later changes in control arrangements based on experience gained.

5. Transfer of Control of U.S. Weapons to Independent NATO Task Force Arrangement

As a separate concept, there is a plan whereby the multinational NATO Task Force would be the operating force and NATO would also take full control over the nuclear warheads. General Norstad discussed this concept of a NATO "4th atomic power" in his address before the Sixth Annual NATO Parliamentarians Conference in Paris November 1960 as follows:

> ". . . . . .
>
> "Many ideas have been advanced for dealing with these questions. It has been suggested, for instance, that the control of weapons might be passed to the Alliance; that they might be committed to NATO for the life of the Alliance in its present form. When I speak of weapons, I am speaking not of the aircraft, or the missiles, or the guns which deliver

the warheads; but I am speaking, inthis sense, of the nuclear components which are now retained in the strictest custody. It cannot be assumed that the creation of a multilateral atomic authority, making NATO a fourth atomic power as has been expressed, would necessarily influence the desire of some nations to pursue their own independent quest for an atomic weapons capability. However, such action might very well satisfy the desires and interests of others by meeting fully the military requirements, and by assuring an equal voice in the control of the particular pool of forces which could be established as essential to the direct defense of Europe.

"There are several additional advantages or dividends to be gained by adding this responsibility to NATO. I will mention only one: for the Alliance to have continuing life and meaning, it needs increasing authority; it needs power of some form. If politically feasible, action to pass to the Alliance greater control over atomic weapons and to subject their use more directly to the collective will could be a great and dramatic new step."

". . . . . .

In the following month, December 1960, at the NATO Parliamentary Council, former Secretary of State Herter spoke of this task force specifically in relationship to the Medium Range Ballistic Missiles and indicated the possibility of its use in other weapon systems. He said:

". . . . . .

"My Government offers the following concept for consideration by the Alliance as a means of meeting this requirement. We suggest that the Alliance consider creation of a special kind of force to operate this weapons system. As we conceive it, such a force would be truly multilateral, with multilateral ownership, financing and control, and would include mixed manning to the extent considered operationally feasible by SACEUR."

". . . . . .

In the same speech Secretary Herter went on to say:

". . . . . .

"We believe, therefore, that the multilateral concept offers the best means of providing a collective basis for the common defense in the MRBM field. Its fulfillment would have immense political significance for the cohesion of the Alliance. My Government believes that this concept offers a rational approach to the problem of the MRBM power

of the Alliance and, if successfully fulfilled, might offer a precedent for further moves in this field."

". . . . . .

The advantage of the "independent" NATO weapons system would be to provide assurance to the individual NATO countries that the weapons could be used in accordanc with the NATO plan, without direct U.S. control over their release. It has been conten that by building up a "multilateral task force" under sole NATO control, this would discourage West Germany from pursuing a separate course, and possibly provide a basis for France to discontinue its national nuclear weapons program.

If the weapons covered by the independent NATO concept were confined to Polaris submarines with U.S. crews or multinational crews, the "host" country problem would at least be eliminated (i.e., the likelihood of the "host" country taking over from NATO in time of stress).

There are, however, a number of disadvantages and problems attached to such a system. It should be noted that a CIA survey in the fall of 1960 indicated that an independent NATO would have little effect on the French effort to obtain a nuclear capability.

Not the least of these problems is how a decision will be made in NATO if and when hostilities occur. Will it require concurrence of all fifteen nations or just a pre-selected number? If the latter, who will make the selection? The introduction of an intervening political body in what necessarily may be a military decision undoubtedly could result in a substantial and possibly fatal delay in reaction time. If it is necessary today to maintain both U.S. and non-U.S. NATO nuclear capable forces on quick reaction fifteen-minute alert it would seem incongruous to set up a new arrangement which, while giving greater voice to each of our allies, at the same time would tend to result in increasing delay in authorized use of nuclear weapons.

Individual nations within the NATO organization which might not be under direct attack from Soviet forces might be reluctant to authorize the use of these weapons even though one of their NATO allies is under attack particularly if threatened with retaliation from the USSR. This could be particularly detrimental to the United States if the USSR attacked only the United States and promised not to harm our European allies if they did not fire the weapons. A portion of our current retaliatory power would be neutralized.

A converse problem might arise where various NATO countries might desire to launch nuclear weapons without U.S. concurrence. General Norstad indicated that the U.S. would undoubtedly be represented on any committee which would have authority to launch weapons. However the U.S. could be outvoted and over-ruled unless each country including the U.S. possessed a veto.

When asked by the Joint Committee visiting group how he would avoid a military paralysis when fifteen different nations would have a veto power, General Norstad responded:

"NORSTAD: I'm rather reluctant to do it because no proposal has been made along this line. Let me mention one thing has been suggested and it might be the farthest thing from the Council's mind. I don't know, but one thing has been suggested is that there might be a small group--using the UN Security Council arrangement, for instance--of say three countries being permanent members, maybe a couple of others who would be given special responsibilities in this field by the Council. They're responsible to the Council. The authority is the Council. But they recognize that you can't have a conference of 15 people sitting down there twiddling their thumbs. You got to have an executive of some kind to do it. And they work out an executive this way. If they did this, of course, the Americans would be members of this executive group. I'm not proposing this. This is a way in which it would be done....."

(Conference on NATO Atomic Planning and Special Ammunition Storage Program Held At SHAPE 30 November 1960, p. 79)

6. Transfer of nuclear weapons or control of nuclear weapons to individual NATO countries

Instead of an arrangement wherein the U.S. would transfer weapons or complete control of weapons to an independent NATO task force, another concept would be to transfer weapons and control to individual NATO nations. It has been suggested that this latter arrangement might be better in that the entire NATO nuclear task force would not be tied up or made inoperative by one or more members who would fear the consequences. If a nation succumbed to Soviet blackmail, it would not be able to veto the use of nuclear weapons by other NATO nations.

However, it has been the firm policy as announced by the United States not to encourage an increase in the number of nations having independent nuclear weapons capability. By doing this we correspondingly increase the possibilities of accidental nuclear war. We definitely decrease the control of the United States over weapons it provides.

A possible exceptional situation under this category is the U.S.-United Kingdom relationship. In this case, the U.K. already has an independent nuclear capability, and the U.S. and U.K. are presently exchanging complete weapons design information as authorized under the 1958 amendments. The U.S. and U.K. also already have a joint control arrangement for Thor missiles. In order to permit the greatest economies in U.S. and British weapons production arrangements, it might be desirable

for the U.S. to transfer nuclear weapons or nuclear components to the British and vice versa. In order to accomplish this, however, the law would have to be further amended.

* * * * * * * * * * * * * *

There are many additional pros and cons to the various arrangements discussed. Which arrangements might be best may vary with the time. It would appear, however, that the present arrangement under which a fictional concept of sole possession and custody by the U.S. exists in "alert procedures" is not necessarily the best for the United States, for the individual nations, or for NATO.

It might be better to consider different arrangements with different countries, depending upon geography, the political stability, the current state of technical advancement, and military stature of each nation. It might be also better to consider different arrangements for different weapon systems.

This report, of course, is based on the observations made during the trip to NATO installations and other military installations November 26 - December 15, 1960, and supplementary information provided by Government agencies.

We have attempted to identify and clarify the various facets of the NATO program which have come under our observation. In some instances we have pointed out problems both of a general and particular nature which have caused us concern. In each category we have tried to make responsible recommendations, some of which may require legislative action by this Committee and the Congress.

The problems we have identified, and the alternatives and recommendations we have made, all add up to the conclusion that it is desirable to re-evaluate the existing U.S.-NATO nuclear weapon program and all proposals for its modification.

The Committee's study of the various phases of nuclear weapon use in NATO causes us to conclude that these specific problems cannot be solved without consideration of their relationship to the basic structure of NATO including the control of its military capability. We realize that the scope of the whole NATO problem goes beyond the immediate legislative jurisdiction of the Joint Committee on Atomic Energy, but the nuclear phase of the NATO problem cannot be solved separately. It must be considered concurrently and with relation to NATO's:

(1) current and future mission;

(2) organizational and administrative structure;

(3) military sophistication and ability of each member nation;

(4) national attitude toward co-operation (through NATO);

(5) political stability of each nation;

(6) security (risk of sabotage and disclosure of Restricted Data);

(7) accidental or unauthorized use of nuclear weapons;

(8) appropriateness of weapons assigned;

(9) vulnerability of fixed bases compared to new concepts of mobility and evasiveness.

Therefore, we believe it to be our duty to call to the attention of those in the Executive Department not only the nuclear phase of the NATO problem, which is a subject of specific jurisdictional interest, but also its relation to the overall problems in the NATO framework.

Recommendation

Most informed observers and responsible authorities in both the military and civilian branches of the Federal Government recognize that the whole concept and role of NATO must be re-evaluated in the light of free world defense requirements in relation to rapid and continuing progress in weapons technologies. The Committee believes that such a re-evaluation must proceed forthwith. It should not be made solely from the technical military viewpoint, but should include civilian specialists in the AEC and representatives of other Government agencies having responsibilities in the fields of foreign policy and national defense.

In other words, this should be a top level review directed and closely watched by the President.* The Committee would expect that in accordance with the provisions of the Atomic Energy Act, it would be kept fully and currently informed of the course of the deliberations.

Until we know clearly what the United States expects from NATO, what it should give to NATO, and what the proper contributions should be from participating NATO countries, the Committee believes that the further proliferation and assignment of nuclear weapons to NATO nations should be held in abeyance. This recommendation is consistent with measures which we have recommended in the report to strengthen security and control arrangements and prevent accidental or unauthorized use of nuclear weapons.

Furthermore, this recommendation is consistent with a renewed emphasis upon building up NATO's conventional weapons resources which General Norstad and our own military and civilian authorities recognize as essential. A conventional capability was the original NATO plan and purpose. So long as NATO is a going organization--and this Committee subscribes to its continuation--strength in conventional arms will

*This is consistent with the President's State of the Union Message which he has amplified by subsequent statements.

be necessary. We are not recommending re-evaluation of NATO with any thought that NATO should be abandoned, or that its conventional capability remain weak and ineffective or its use of tactical nuclear weapons be proscribed. Rather this re-evaluation should seek to find ways by which NATO can strengthen the over-all military posture of the free world. Upon the conclusion of that study, this Committee hopes that it will be enabled to determine more clearly what changes, if any, are needed in existing atomic energy legislation.

In addition to the recommendations proposed in the Committee's report, such re-evaluation should include an assessment of the political and economic realities of the member nations. It should review the new weapon technologies and their impact on obsolescent military equipment and arrangements. It should state the requirements for strengthening its organizational structure and for modernizing its operational procedures in order that NATO might respond effectively to conventional or nuclear challenges.

In summary, the Committee specifically recommends that the Executive Department undertake a comprehensive examination of the North Atlantic Treaty Organization in connection with the study authorized by the President.

We further recommend that while the study is being made the Executive Department establish effective liaison and close collaboration with the appropriate Committees of the Congress whose legislative and funding responsibilities will be involved in the implementation of such new programs and concepts as may be developed.

~~SECRET~~

JOINT COMMITTEE ON ATOMIC ENERGY
(Ad Hoc Subcommittee)
STUDY OF U.S. AND NATO
NUCLEAR WEAPONS ARRANGEMENTS
February 11, 1961

APPENDICES

Appendix 1. " The Joint Congressional Committee on Atomic Energy and the Civilian Control of Atomic Energy" by James T. Ramey, Executive Director, Joint Committee on Atomic Energy.

Appendix 2. Outline of JCAE Study of Civilian-Military Relations in Field of Atomic Energy.

Appendix 3. Legal Memorandum of David R. Toll, Staff Counsel, Joint Committee on Atomic Energy re "Proposal to Arm U.K. Planes with U.S. Atomic Weapons."

Appendix 4. Memo of Executive Director to Senator Clinton P. Anderson and Congressman Chet Holifield re "Proposed Amendment to Section 92 of the Atomic Energy Act."

THE JOINT CONGRESSIONAL COMMITTEE ON ATOMIC ENERGY AND THE CIVILIAN CONTROL OF ATOMIC ENERGY

by
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Joint Committee on Atomic Energy*
U.S. Congress

Prepared for delivery at the 1960 Annual Meeting of The American Political Science Association, New York, Statler Hilton Hotel, September 8 - 10, 1960

This paper will discuss the role of the Joint Congressional Committee on Atomic Energy as an institution in the civilian control of atomic energy. It is hoped that this discussion will give some insight as to the operations of Congress in a complex field, as well as shed some light on the over-all problem of the civilian control of atomic energy.

Background

The issue of the civilian vs. military control of atomic energy has lain practically dormant for ten years or more. Only an occasional spark of controversy has illuminated this complex area of relationships between the civilian and military branches of the Government in the past decade.

But in the immediate post-World War II years the question of civilian control was the burning issue which was thought to transcend all others in the consideration of what became the Atomic Energy Act of 1946 (known as the "McMahon Act").(1) At that time the question was whether Congress would permit the permanent Atomic Energy Commission to have active military officers on its part-time governing Board, and as its full-time Administrator and Deputy Administrator. This legislative proposal was contained in the May-Johnson bill introduced in the fall of 1945.

It was in this period that the atomic scientists first became politically active.(2) This era was vividly recalled by an observer of the day, who

*The views expressed in this article are, of course, solely those of the author, and should not be attributed to any Government Agency or the Joint Committee on Atomic Energy. The author is indebted to Miss Dorothy Schaffter and Mrs. Dorothy M. Bates of the Library of Congress for annotated references, and to Miss Patricia McMahon for notes on the legislative background of the civilian control problem.

commented:

> "To many, this was a simple choice between war and peace. To others, advocacy of civilian control was a means of preventing 'brass hat' abuse of our precious asset, atomic energy. To many scientists, the issue was posed in related terms: military control meant a continuance of arbitrary decisions, uncomprehending bureaucracy, and an intellectual gap which the military officers showed little interest in bridging. To a few historically-minded souls, the issue was one of democratic tradition--the armed forces with their essentially authoritarian training and discipline would not be adequately responsive to the public will."(3)

The civilian control issue was resolved in the McMahon Act by the establishment of a full-time civilian five man Atomic Energy Commission, a civilian General Manager, and a civilian Joint Committee on Atomic Energy. The AEC was to be responsible for the development, manufacture, and custody of atomic weapons and other military applications of atomic energy, but the President was authorized to transfer or delegate any of these functions to the military departments. The collaboration and participation by the military in the atomic energy program was facilitated by providing that the Director of the AEC Division of Military Applications should be a military officer, and by the establishment of the Military Liaison Committee which was to provide a two way means of communication between the AEC and the military. Thus, the MLC was established to be the "watchdog" of the military over AEC, and the Joint Committee was to be the watchdog for the Congress and public over both the military and AEC.

The reasons for the establishment of civilian supremacy in the atomic energy program were several.(4) It was thought that responsibility for the development of policies in connection with this great new force should be in civilian hands reporting directly to the President.(5) The 1946 McMahon Act attempted to emphasize the conduct and encouragement of peaceful civilian research and uses of atomic energy (as well as military uses) which would be better handled by civilians. It was believed that a civilian agency would be more efficient, even for military applications, and particularly in obtaining the all important continued participation and cooperation of the scientific community. It was further believed that by placing control of atomic

energy in civilian hands we would give added assurance to the world that the United States contemplated no military adventures, and strengthen the U.S. position in negotiating international controls on atomic energy development.(6)

It is not the purpose of this paper to trace in detail the subsequent history of civilian control of atomic energy, and the various changes in relationship between the several institutions involved, particularly the AEC. Suffice it to say that in 1948, as several of our participants will recall, the principle of civilian control was challenged in part by the military through Secretary of Defense Forrestal.(7) This issue, which involved a proposal that custody of atomic weapons be transferred to the military was resolved by President Truman in favor of continued civilian custody.(8)

Since the 1947-50 period many aspects of the military applications of atomic energy have changed. From an era of extreme scarcity of raw materials and finished weapons, we have reached a stage of a temporary surplus of uranium ore and we have large stockpiles of weapons of many sizes and yields. Instead of reliance solely on delivery as a bomb from aircraft, atomic weapons can now be delivered as warheads on missiles, and in artillery and bazooka shells. Additional military applications have come to the fore, including nuclear powered submarines, nuclear rocket development, and compact nuclear power reactors for remote military installations. And finally, we have seen the Soviets, and the United Kingdom, develop a nuclear weapon capability, and are watching the French attempt to do so.

All of these developments have posed many new problems. Thus there is the problem of numbers--what is manageable for a relatively few weapons may not be for hundreds or thousands. This compounds the ordinary problems of storage, handling, protection, safety, and secrecy classification. Problems are accentuated by the necessities of location not only in the continental United States, but in aircraft and ships, and at overseas bases. A further problem is the need to have atomic weapons ready for action in a very short period of time. And there are not only problems between AEC and the Defense Department, but also between the United States and its allies.

In view of these changes in program, it is not unexpected that changes have occurred in civilian-military relationships; i.e. in civilian control.

Old institutions, such as the Military Liaison Committee, have apparently been supplanted in some ways. New combined military-civilian groups, such as the Naval Reactors Branch under Admiral Rickover, have been successfully established within the Atomic Energy Commission. The State Department has been assuming a greater role through its office of atomic energy and disarmament.

General Role and Organization of Joint Committee

It is the purpose of this paper to discuss and analyze the role of the Joint Committee on Atomic Energy as an institution in the civilian control of atomic energy. As indicated previously, the Joint Committee in a sense is one of the two primary institutions in the civilian control of atomic energy. For it was this "watchdog" role of the Joint Committee for which it was primarily established. This was made clear in the original report of the Special Senate Committee which reported out the McMahon Act, with the following language:

> "The importance of the field of atomic energy, coupled with the unique character of the problems raised by its development, makes it peculiarly desirable and necessary that the Congress be fully acquainted at all times with the work of the Commission. The bill in section 16 makes provision for reports which will contribute to this end.
>
> "More important, however, is the provision for the establishment of a joint congressional committee, to be composed of nine Members of the Senate and nine Members of the House of Representatives, directed to make continuing studies of the activities of the Atomic Energy Commission and of problems related to the development, use, and control of atomic energy.
>
> "The joint committee is empowered to hold hearings, to act on legislation, and to equip itself with a staff of such experts and technicians as it deems necessary to carry out its functions.
>
> "The usefulness of such a committee in focusing responsibility in the Congress and in keeping the legislature informed cannct be overemphasized. The joint committee will be in a position to give substantial aid to the Appropriations Committee; and to give consideration to supplementary and amending legislation as the need arises."(9)

It has often been noted that the Joint Committee is a somewhat unique Congressional institution. For one thing it is the only Joint Committee

which has legislative functions in that all bills relating to atomic energy or the AEC are referred to it and it is empowered to make legislative recommendations to both houses of Congress. Since the 1954 amendments, legislation to authorize appropriations for capital facilities, and since 1957 legislation to authorize governmental financial participation in atomic power projects, have also been required and must be referred to the Joint Committee. A further statutory requirement that AEC and the Defense Department keep the Joint Committee "fully and currently informed" of all activities relating to atomic energy is also somewhat unusual in Executive-Congressional relationships.

The Joint Committee is composed of eighteen members, nine from each House. No more than five members may be from the same political party in either House. The Chairmanship rotates every two years between the Senate and the House. The Joint Committee has a staff of some twenty-odd employees of whom about eight or nine are professional employees. In carrying on its work it utilizes extensively consultants and assigned employees from AEC and its laboratories and the Defense Department. It has also been ably assisted by the Library of Congress and the General Accounting Office--organizations which are primarily responsible to Congress.

In assessing the sources of the Joint Committee's authority, Chairman Anderson and the author recently stated:

> "Reference has already been made to the Joint Committee's principal statutory sources of authority, namely, acting as a joint unit for both houses of Congress, its right to be currently informed, and its enlarged legislative responsibilities. Also of importance have been the statutory requirements of Joint Committee review of important domestic atomic power development arrangements, as well as international arrangements for co-operation with foreign governments covering the peaceful development of atomic energy and military uses.
>
> "From a practical standpoint the success achieved by the Joint Committee over the years has resulted from the continuity in membership of many of its leading members, and its efforts to keep the United States in the forefront of atomic energy development. The tenure of many of its senior members goes back to the original Joint Committee appointments in 1946, and several other members number eight or ten years of service. This is in contrast with the Atomic Energy Commission which currently has four new Commissioners and a new General Manager."(10)

In relation to military problems, it should be noted that several influential members of the Joint Committee also serve on the Committees of the House and Senate which deal with the armed services, foreign relations, and appropriations. Several members of the Joint Committee are also reserve officers in the armed forces.

Role of the Joint Committee in Relation to Civilian Control -- Individual Views of Joint Committee Members

Several members of the Joint Committee were leading proponents of civilian control when legislative proposals were first considered in 1945-46. Congressmen Holifield and Price joined in a minority report on the May-Johnson bill. Congressman Durham served on the conference committee which finally hammered out the compromises on the McMahon Act. Senator McMahon became probably the best known proponent of civilian control both before and after the enactment of the Atomic Energy Act of 1946 up until his untimely death in 1952. Senator Vandenberg also made an original contribution to the establishment of civilian control.

In the years that followed, Congressmen Durham, Holifield and Price continued their championing of civilian control. Thus, in connection with the 1954 amendments to the Atomic Energy Act, Congressmen Holifield and Price stated in part in their dissenting views:

> "Although we do not believe H.R. 9757 departs in any fundamental way from the accepted principle of civilian control and management of the atomic energy program, we wish to take this opportunity to alert the Congress and the public to the possibilities that lie ahead.
>
> "It is generally acknowledged that atomic weapons are rapidly achieving a conventional status in military planning for national and allied defenses. Accordingly, we may expect that the military will steadily seek increasing control over the weapons phases of the atomic energy program. This is not said in criticism but only as a reminder that there are bounds which the military must not transgress if the principle of civilian control is to be maintained.
>
> "Military influence in the Atomic Energy Commission is by no means lacking and, we believe, it is more pervasive than heretofore....."
>
> "The pending bill gives new authority and responsibility to the Department of Defense in various atomic affairs."(11)

Congressman Durham, in his capacity as Chairman of the Joint Committee in 1958, called attention to new problems of both small inroads by the military, and potentially large increases of military control in the field of nuclear propulsion for outer space. In a speech at the annual meeting of the Atomic Industrial Forum he stated in part:

> "Last year I pointed out that most of our progress under the 1946 and 1954 Atomic Energy Acts is attributable to the fact that we have had a CIVILIAN Atomic Energy Commission responsible for the entire atomic energy program.
>
> "This policy of civilian control is presently being put in jeopardy in two different ways. First is by the process of nibbling--of proposing detailed changes in the Atomic Energy Act and practices thereunder which may enhance the role of the military..... Moreover, we are also faced with a serious challenge to civilian control in the field of outer space propulsion."(12)

In a recent speech on the Floor of Congress, Congressman Holifield spoke of the problem of "erosion of civilian control" in relation to proposed arrangements for custody or transfer of atomic weapons to NATO countries. He stated:

> "There has been a constant campaign to obtain acceptance of the fiction that 'after all a nuclear weapon is just another weapon.' 'The nuclear weapon is a conventional weapon now.' I regret to say that there has been an erosion of civilian control. Part of this erosion is due to a gradual step-by-step surrender to the steady pressure of our strong and entrenched military bloc. Part of it is due to the multiplication of nuclear weapon types and quanties in inventory."
>
> * * *
>
> "These problems will not go away nor will they be solved by our refusal to recognize that technological change has made obsolete the old and cumbersome procedures.
>
> "My plea is that we do not try to solve them through subterfuge or a calculated program of deceit. Let us lay the problem on the table and talk sense to the American people and our allies. Unless we can bear the burden of new challenges, through the exercise of our historic democratic processes of discussion, debate, and publicly arrived at decisions, then our way of life is doomed."(12a)

On the Senate side, Senator Anderson has taken the lead in relation to preserving civilian control. (Since there have been no clearcut issues on civilian control in recent years, and also because of problems of secrecy, there has been little occasion for expression of views on the subject by other members of the Joint Committee.)

Committee Role in Civilian Control

As mentioned earlier, the role of Joint Committee in relation to civilian control has been that of an all around "watchdog." Senator Anderson in a recent statement in connection with the President's press interview on the transfer of atomic weapons to NATO allies expressed the Joint Committee's traditional role as follows:

> "If and when a proposal to change the law comes to our Committee its general nature and implications must be understood by the Congress and the American people. The Chairman and members of the Joint Committee on Atomic Energy stand as guarantors to the Congress and the public that secret activities in the atomic energy field are carried on properly and in accordance with the law."(13)

In analyzing the Joint Committee's watchdog role, it may be helpful to consider it in relation to four general functions carried on by the Committee: legislative; investigative and inspectional; informational; and policy making.

Legislative Function

Thomas and Northrop have pointed out in their book that in the early years the Joint Committee was primarily interested in making the established civilian-military relationship work in practice.(14) It was not until the amendments of 1954 that any significant legislative changes were made affecting this relationship. However during 1947-51 various bills to permit greater military participation were permitted to die in Committee. In 1951, an amendment was reported out of the Joint Committee and enacted which permitted transfer of Restricted Data to U.S. allies (intended only for the British) and provided for Defense Department participation only through the National Security Council.

1954 Amendments

The 1954 amendments provided for considerably greater latitude in the Defense Department for the security clearance of its own employees and those of its contractors.(15) Theretofore such employees had to be cleared by AEC, based on FBI investigations. Provision was also made for

greater participation by the Defense Department in the classification, declassification and "trans-classification" of Restricted Data and defense information.(16)

The 1954 amendments also authorized the transfer of Restricted Data to U.S. allies. The President was given authority in section 144 b. to authorize "the Department of Defense, with assistance of AEC," to communicate Restricted Data in certain categories to an allied nation or regional defense organizations such as NATO. The Restricted Data categories were those necessary to: "(1) the development of defense plans; (2) the training of personnel in the employment of and defense against atomic weapons; and (3) the evaluation of the capabilities of potential enemies in the employment of atomic weapons." A proviso was added to the effect that the Restricted Data on weapons must be confined to external characteristics and there must be a joint judgment by the Defense Department and AEC that any such data "will not reveal important information concerning the design or fabrication of the nuclear components of an atomic weapon."

Thus for the first time the Defense Department was given authority to transmit atomic information constituting Restricted Data to foreign countries. It should be noted, however, that this information was necessary in connection with activities which normally would be handled directly by the military; i.e., planning, training, and defense against atomic weapons. Also AEC was to "assist" the Defense Department and participate in a joint determination as to the extent of weapons information to be transferred. On Restricted Data relative to research, development, and production of special nuclear material the Atomic Energy Commission was given responsibility for transmittal of information without Defense Department "assistance."

Another somewhat obscure change or interpretation in the law apparently permitted the Defense Department to deal with nuclear components of weapons and nuclear warheads of missiles separately from the weapons system and the missile itself from the standpoint of secrecy classification and custody. This was later to be interpreted by the Defense Department to permit the transfer of Restricted Data on submarines to the United Kingdom, and to permit nuclear warheads on missiles to be treated separately from the missile vehicle itself in terms of development and manufacture, and transfer of ownership and classified information. This was accomplished primarily by the new definition of atomic weapons in section 11 d.

It was these overt grants of authority, and possibly others less direct, which caused Congressmen Holifield and Price to set forth their qualms as to the proposed changes on civilian control.

To somewhat balance the additional grants of authority to the Defense Department, the Joint Committee added and the Congress enacted certain provisions intended to strengthen the Joint Committee's "watchdog" position in relation to the Military. First it added a provision to section 202 of the Act to make the Defense Department subject to the same requirement as the AEC in keeping the Joint Committee fully and currently informed as to all its activities relating to atomic energy. Secondly it added provisos to sections 144 and 123 to require that all agreements of cooperation, including military agreements of cooperation, must lie before the Joint Committee for thirty days before becoming effective.

1958 Amendments

Following the Soviet sputniks and the resultant NATO conference in the fall and winter of 1957, the Executive Branch proposed additional revisions to sections 144 and 91 to shore up U.S. alliances in the face of the increasing Soviet technological and missile threat.(17)

The proposed bill provided for the elimination of the proviso in section 144 b. preventing the communication by the Defense Department of "important information" on weapons design in connection with training activities. A new section 144 c. was proposed to be added which would permit complete exchange of design information on atomic weapons and submarines between AEC and foreign countries. A new section 91 c. was proposed to permit the President to authorize AEC or the Defense Department, as appropriate, to transfer to cooperating nations non-nuclear parts of weapons and weapons systems; nuclear reactors for submarines and other military applications; and source, byproduct and special nuclear material (U_{235} and plutonium) for use in weapons or in nuclear reactors for military applications.

None of these provisions changed the previous pattern as to responsibilities between AEC and the Defense Department. However, the Defense Department did propose to obtain greater authority in the trans-classification of information.(18) And the division of responsibilities between AEC and the Defense Department was left somewhat vague in section 91 c.

Although responsibility between AEC and the Defense Department was not changed significantly, the extent of permissible transfer and exchange of atomic information, materials, and non-nuclear parts with foreign allies was substantially enlarged. This caused certain segments of the scientific community, and certain groups with pacifist leanings, to view the proposals with alarm. The principal basis of their fears was not so much the military, as the stimulation of the nuclear arms race with the Soviet bloc, and the possible facilitation of the entry of a "fourth" nation and subsequently other countries into the atomic weapons picture.(19)

The Defense Department provided a substantial portion of the testimony in favor of the amendments. Certain representations and assurances were made which, as we shall see, have been subject to considerable subsequent discussion.

The Joint Committee in reporting out the 1958 amendments, and Chairman Anderson on the Senate floor, added a number of restrictions and limitations.(20) One of these had the effect of limiting detailed weapons cooperation to the British.(21) Another gave the Congress a veto over future military agreements for cooperation by means of increasing the waiting period from thirty days to sixty days and providing that no agreement could become effective if a concurrent resolution of disapproval should be adopted by the two Houses of the Congress during the sixty day waiting period.(22)

Since 1958, no significant amendments of the Atomic Energy Act affecting civilian control have been adopted. However, on July 15, 1958 on the Floor of the Senate an amendment to the AEC Authorization Bill for Fiscal 1959, sponsored by the Defense Department, was proposed, which provided for Defense Department approval on transfers of funds by AEC under section 106 for AEC weapons facilities. Although the amendment was agreed to by the Senate for purposes of study, it was eliminated in conference.(23)

Another amendment was proposed by AEC Chairman McCone in 1959 with Defense Department support would have removed AEC's responsibility for establishing or approving safety regulations applicable to weapons and atomic reactors in the custody of the Defense Department.(24) The question of AEC's responsibility for approving safety regulations was first raised in 1959 by Admiral Rickover wearing his AEC hat. In testimony before the Joint Committee, during an underwater hearing on board the submarine SKIPJACK, Admiral Rickover indicated that he believed that AEC was the legal and proper agency for the approval of Navy safety regulations applicable to nuclear submarines.(25)

The AEC, possibly in view of the increasing number of crashes of military aircraft carrying nuclear weapons, wanted its responsibilities for safety clarified so that it would not be held responsible for failures in design of aircraft or weapons. The proposed solution was an amendment to authorize the President to designate the responsible agency for safety as between AEC and the Defense Department.

The Joint Committee after considering various alternatives, did not report a bill out. Instead it requested reports on the problems involved from AEC and the Defense Department for consideration in the Second Session of the 86th Congress, beginning in January of 1960. As of August 15, 1960 the two agencies had not submitted the requested reports.

Policy Making and Recommending Functions

Perhaps the most unique function of the Joint Committee in its "watchdog" role has been its affirmative policy making and program recommending function. Normally a watchdog is supposed to exercise a negative or restraining role. But the problem of the military in many cases is not that it has tried to do too much but that it has been content with too little. Faced with this situation the Joint Committee has made many contributions to the national defense and security.

The Joint Committee's affirmative role in the decision to build the H-bomb and its initiative for the large buildup in the AEC raw material and production plant expansion program beginning in 1950 has been described in an article by Senator Jackson in the November 1953 issue of THE ANNALS.(26) The activities of the Joint Committee in initiating a step-up of the missiles program in 1955 and other national defense efforts are described in a letter to President Eisenhower from Chairman Carl T. Durham and Vice Chairman Anderson dated December 5, 1957.(27) The Joint Committee's efforts in support of the NAUTILUS nuclear submarine and an eventual all-nuclear Navy are well-known. This was recognized in testimony by Admiral Rickover, the 'father" of the nuclear Navy, as follows:

> "Admiral RICKOVER. There is one more thing I must say which I have said many times before, but I would like to say it again. Had it not been for the Atomic Energy Commission and the Joint Congressional Committee we would not have any nuclear-powered naval vessels today. I think these two organizations and their way of operating deserve most of the credit."(28)

A brief review of the authorization of the new Hanford plutonium reactor in 1957-58 should help in understanding the Joint Committee's affirmative role and methodology. The chief culprit in the enterprise was the so-called "requirements system" of the military services. In order for any development or production project to be sponsored by the military, the top management has to establish a "requirement" for its end product, whether it is conventional tanks or aircraft, or nuclear weapons, or the special nuclear material (U_{235} and plutonium) necessary for weapons.

In 1947 at the first meeting of the Joint Committee which considered military applications, the Committee criticized the method used by the military in establishing requirements for U_{235} and plutonium (then called "fissionable material") because requirements were based on AEC existing production capacity. Again in the 1950-52 period the Joint Committee was critical of the requirements system, and, in effect, persuaded Congress to establish requirements in terms of national needs for an enlarged stockpile

of weapons in the face of the Soviet threat. The expansion program for the U_{235} diffusion plants at Oak Ridge, Paducah and Portsmouth, and the plutonium production plants at Savannah River and Hanford, resulted.(29)

Following the above expansion period, the Joint Committee Chairman and the Chairman of the Military Applications Subcommittee, in 1955 and 1956, pointed out that there were still shortages in regard to special nuclear materials.(30) In 1957, the effort to authorize construction of an additional large plutonium production reactor was begun in earnest. An engineering and design study was authorized in the AEC Authorization Act for fiscal 1958.(31) In fiscal 1959, the Congress authorized $145 million for a single purpose production plant with built-in features which would make it "convertible" to dual purpose operation for electric power production subject to later authorization.(32) In justifying the project, the Joint Committee's unanimous report stated:

> "The Joint Committee has studied the problem of plutonium requirements for many years. It seems clear to the committee that fiscal limitations, rather than sound military planning, have held back necessary increases in our plutonium production facilities. The committee is convinced that dollar limitation, while important, should not dictate national defense policy, and that more plutonium production facilities are urgently needed. The committee has therefore recommended to the Congress project 59-a-5, a new $145 million production reactor facility at Hanford, Wash., as a minimum effort vital to new weapon development and our improved defense posture. In the event a limitation of armaments agreement should be successfully achieved, the facility can be converted, after congressional authorization, to peaceful purposes."(33)

It will be noted that budgetary considerations rather than the military, as such, are the targets for consideration. Indeed the Joint Committee report pointed out that the Army, Navy, and Air Force, and the Joint Chiefs of Staff, had all recommended additional production of plutonium. In addition, AEC weapons laboratories and a special Panel of the Subcommittee on Military Applications had testified as to the need for more plutonium. As a parting shot at the requirements system, the Joint Committee report stated:

> "Since 1947, the committee has been critical of the Defense Department method of determining requirements based not on the military needs but rather on the Commission's planned production rate. (A summary of Joint Committee interest in this problem is set out in appendix I, p. 24.) It is essential that the Department of Defense correct this procedure and determine

future military requirements of reactor products solely on military needs independently of Commission planned production schedules."(34)

The sequel to this story is that after some more encouragement by the Joint Committee, the Defense Department finally came up with a long-term schedule of its requirements for U_{235} and plutonium. But Senator Anderson, while commending the Defense Department for this effort sadly pointed out in an article in Nucleonics:

"We have recently learned that the Defense Department has finally developed a long-term requirement for its future needs for plutonium. But no one should be surprised if this long-term requirement coincides with the production from current AEC facilities plus improvements and the new Hanford reactor. So round and round they go!"(35)

Investigative and Inspection Functions

The Joint Committee has not utilized its formal investigative powers to any considerable extent in connection with the Military. However, the Committee has made studies of various aspects of military applications of atomic energy. For example in 1958 Senator Jackson, Chairman of the Subcommittee on Military Applications, established a Panel of outside experts to study the need for plutonium and problems of undersea warfare. The reports of the Panel have been most helpful to the Committee and the Executive Branch.(36)

Inspection trips by Committee members to installations operated by the Military are another means of keeping up on current problems. In 1955, for example, on a trip to European installations, Chairman Anderson and other Joint Committee members discovered certain deficiencies in U.S. weapons installations which were called to the attention of appropriate U.S. military officials and corrected. In 1959 Senator Jackson visited U.S. Antarctic scientific bases operated by the Navy and recommended the provision of atomic reactors for such remote sites. In the AEC Authorization Act for fiscal 1961, $13 million has been authorized for such atomic power plants. In July of 1960, Congressman Van Zandt and a Committee staff member visited U.S. Arctic bases from Greenland to Alaska and also recommended the provision of atomic power plants for these areas.

Joint Committee classified hearings and briefings in executive session by the Defense Department, AEC and CIA serve to keep the Committee and staff informed as to the current status of military applications of atomic

energy, and provide leads as to possible problems. A number of such classified meetings are held in each session of Congress, and in case of emergencies, between sessions. Five meetings were held on the weapons custody problem alone in the period of November 1959 to July 1960.

On occasion the Joint Committee requests special reports from the Defense Department on specific problems. Thus, when the Committee first heard informally of the proposed "2 key" arrangement on joint custody of U.S. atomic warheads with foreign contries, it immediately requested a full report on the matter.

Informational Functions

An important part of the Joint Committee's watchdog role is to make available to the Congress and the public information and judgments on military applications of atomic energy, the detailed basis of which may be classified in whole or in part.

In recent years, the Committee has made a determined effort to conduct public hearings on important questions in which the technical aspects had been cast in doubt because of prior secrecy. Examples include the hearings held in 1957 and 1959 on radioactive fallout from weapons testing,(37) and the hearings on the effects of nuclear war held in 1959.(38) In the spring of 1960 public hearings were held by the Joint Committee on the technical aspects of the detection of nuclear tests.(39) In each case, a Summary-Analysis report of the hearings was prepared and issued for the information of Congress and the public.(40) We have been informed that these hearings and reports have become valuable reference books for scientists and engineers, as well as laymen.

The Joint Committee has also followed a practice of publishing in the Congressional Record proposed military agreements for cooperation (as well as civilian agreements) with foreign countries. Public hearings have also been held on the proposed military agreements, and reports issued.

Speeches and press statements by members of the Joint Committee are another method of informing the Congress and the public on problems of military and civilian control of atomic energy. For example, Chairman Anderson in 1956 revealed in a speech on the Floor of the Senate that the Defense Department and AEC were proposing to transfer secret design information and blueprints of the NAUTILUS nuclear submarine to the British, contrary to the intent of the law as interpreted by a number of members of the

Committee,[41] including Congressman Cole, the ranking minority House member.

More recently, on February 3, 1960, Chairman Anderson felt it necessary to issue a statement concerning the President's answer at a press conference to a question whether the United States should transfer nuclear weapons to its allies.[42] The President's press conference occurred on the day following a classified Joint Committee session with the Defense and State Departments and AEC on the status and plans for the custody of U.S. atomic weapons. Following various leaks to the press by the Executive Branch, Congressman Holifield made speeches on the Floor of the House on February 9, and March 9, 1960 as to various problems involved in proposed custody arrangements.[43]

* * * * * *

From the foregoing discussion, it should be evident that the Joint Committee has had a varied approach to its over-all watchdog role in the maintenance of civilian control of atomic energy. The performance of its various functions has entailed numerous contacts and relationships between Joint Committee members and staff with representatives of the Defense Department and the Army, Navy and the Air Force Departments. On the whole, relationships have been good, especially between the military officers of the armed services who regularly appear before the Joint Committee, and the Committee members and staff.

Paradoxically it has been the civilian representatives in the Defense Department who have had the most difficulties in relationships with the Committee. On reflection this is understandable, since problems in recent years have related to the effect of budget ceilings on programmatic decisions, and other top level policy and management problems. Some of these problems will be discussed in the following pages.

Problems of Joint Committee in Civilian Control Role

1. Keeping Fully and Currently Informed

One of the chief problems for the Joint Committee in its "watchdog" role has been the practical matter of actually keeping fully and currently informed on important aspects of the military applications of atomic energy as they develop.

The Joint Committee has had its problems with AEC in keeping informed, particularly in the period of 1953-58. But the Defense Department

presents even more difficulties because of its large size, its multifold layers of authority, and the fact that atomic energy is only one of many activities under its umbrella.

The Atomic Energy Act of 1954 places an affirmative obligation on the Defense Department, as well as AEC, to keep the Joint Committee fully and currently informed as to all its activities involving atomic energy applications. The Joint Committee report on this provision in 1954 stated that the obligation applied to "pending" matters as well as those where the Defense Department had taken final action or reached a "position." The Defense Department in its procedures, however, provides for reporting only on "significant" matters, and only after final action has been taken within the Defense Department.

There appears to be some question in recent years as to whether the Defense Department has performed its statutory obligation even with respect to certain "significant" matters. Thus as noted previously, the Joint Committee was not officially informed of the so-called "2 key" custody arrangement for U.S. thermonuclear warheads on foreign-owned Thor and Jupiter missiles until the Committee requested such information. Other cases could probably be mentioned, such as the revelation by an official spokesman of the Executive Branch that land-based Polaris type missiles with thermonuclear warheads were being considered for some type of joint U.S.-NATO arrangement.

2. Reporting to Congress and the Public

A further problem encountered by the Joint Committee in its watchdog role has been that of real or contrived secrecy labels preventing public discussion of issues. The technical details of any military atomic project must usually be classified and with justification. Occasionally even a unique idea or concept is so "hot" it must also be classified. But in many cases, particularly after a lapse of time, it is necessary and possible to provide unclassified descriptions of projects or arrangements in sufficiently general terms as to permit meaningful discussion and yet protect security.

Joint Committee members have made a considerable effort to observe the letter and spirit of secrecy regulations. In some cases, this has regretably prevented full and free discussion of policy issues of importance to the Congress and the Country.

The security problem has been accentuated by the 1958 amendment to section 123 which provides for a sixty day waiting period on military agreements of cooperation with the proviso for a veto by concurrent resolution of the two Houses of Congress. In the debate on the 1958 amendments, various

House members questioned how the House would be informed by the Joint Committee as to the problems involved in military agreements of cooperation. They received assurances from members of the Joint Committee that the Joint Committee would report to the two Houses on the issues as fully as security would permit. In this connection the report of the Joint Committee states:

> "The Joint Committee on Atomic Energy in compliance with its duties to the Congress and to the peoples of the United States will closely and thoroughly review any and all proposed agreements for cooperation that will be submitted to it pursuant to the amendments contained in this bill. The members of the Joint Committee are keenly aware of their important responsibilities to the Congress and to the peoples of the United States."(44)

Sometimes the problem of reporting to Congress and the public is made more difficult by security labels imposed by the fiat of the Executive Branch which bear no relation to real security. In statements on March 19 and 22, 1959,(45) Senator Anderson made public a report by the Defense Department on fallout from weapons tests which revealed that stratospheric fallout was coming down much faster than AEC had predicted. This report had been classified "confidential-defense information" but after much discussion between the Defense Department staff and the Joint Committee staff it was declassified. However, the Defense Department attempted to keep the "confidential" tag on the report. The stated reason for the delay was in order to permit AEC to review the bases of the report, although an AEC Commissioner had received a copy of the report in December of 1958.

The problem of maintaining real security and yet keeping Congress and the public informed is compounded by the practice, unfortunately of long standing, of deliberate "leaks" of previously classified information by the Executive Branch. For example, the statement of Senator Anderson of March 19, 1959 was occasioned by a front page story in a New York newspaper which revealed hitherto classified information on the AEC high altitude "Argus" test shot which apparently had gone undetected by the Soviets and others. Thus we have the situation where the Defense Department is open to the charge on the one hand of apparently "leaking" classified information helpful to its alleged viewpoint on the difficulty of detecting tests, and on the other hand of trying to suppress unclassified information which indicated somewhat greater hazards from fallout.

Another example involved the custody problem previously mentioned. Following the Joint Committee's classified executive session on February 2,

1960, at which representatives of the Executive Branch were present, an obviously informed story on the subject of the meeting appeared the next morning in a New York paper. It was this story which provided the occasion for the President's discussion later that morning of problems of custody and transfer of nuclear weapons with NATO allies.(46) Thereupon that afternoon Senator Anderson, as Chairman of the Joint Committee, felt obligated to issue a quite restrained statement, presumably because of security and diplomatic considerations.(47) However the next day and in the weeks that followed various newspaper and magazine stories appeared which, according to the grapevine, were based on information from the Executive Branch. An example of the information provided is contained in a story in a Baltimore paper dated March 5, 1960, as follows:

> ".....Something is under consideration now within the Administration. It has come up in connection with the intermediate range Thor missiles, for example, which the United States is supplying to Britain and other NATO allies, and also with the use of such air-to-air defense missiles as the Genie, also being supplied to the British.....
>
> "In the current discussions within the Administration it is being noted that the weapons being assigned to allied forces in some of the NATO countries -- the ground-based missiles and the air-to-air missiles -- must be ready for instantaneous use.
>
> "Yet if the nuclear warheads must be under the custody only of Americans -- while the Thor or Jupiter missiles are operated by British R.A.F. units, for example, or the Genies are attached to R.A.F. bombers -- precious time could be lost in arming the missiles and in otherwise maintaining American custody until they were fired.
>
> "Thus there could well be times under presently visualized circumstances when it would be difficult to say that the nuclear weapons were under control and custody of the United States. From this situation has arisen the belief that the law should be changed."(48)

It should be noted that the Administration did not recommend a change in the law. However following this series of stories based on inside information, a tour of a Thor base in England by newspaper correspondents was permitted in which photographs of the "2 key" system were published.(49) More recently photographs of a U.S. Air Force Major with his key in front of the instrument panel for the missile launching system have appeared in newspapers and magazines.(50)

Yet in spite of what would seem to have been a deliberate publicity scheme to popularize the "2 key" system, the information was still officially classified "secret" by the Defense Department until recent inquiries by the Joint Committee. It will readily be seen that the practice of maintaining a strict classification system, together with the liberal use of leaks for political or bureaucratic purposes, can be an effective instrument in attempts to manipulate public discussion and opinion. This practice of administrative fiat as to what is classified and what may be leaked will also inevitably undermine a real security classification system.(51)

3. Problems of Keeping Faith With Congress

One of the most aggravating substantive problems affecting the relationships between Executive agencies and Congressional Committees is that of "keeping faith" with Congress. By "keeping faith" is meant the taking of actions consistent with representations and assurances given to Congress at the time of Congressional enactment of a law or amendment, or the authorization, approval, or review of a proposed policy, project or arrangement.

In the matter of civilian-military relationships in atomic energy the matter of keeping faith with Congress is particularly sensitive because of the role of "guarantors" to Congress and the public which has been assigned to the Joint Committee on Atomic Energy. Members of the Joint Committee in their reports and statements make representations to the Congress and the public as to how a proposed amendment to the Atomic Energy Act, or proposed military agreement of cooperation, will be carried out in practice. These representations in turn are based on assurances and information supplied by the Executive Branch. In their "watchdog" role Joint Committee members must therefore be on the lookout as to whether these assurances or representations are actually being observed in practice, and if not whether there is justification and authority for the change.

It was this role to which Chairman Anderson was referring in his February 3, 1960 statement concerning the President's position on weapons custody:

> "When the present law was adopted in 1958 (P.L. 85-479) the officials testifying to the Joint Committee time after time stated that it was not intended and that the law, if amended in accordance with their recommendations, would not permit completed nuclear weapons or the nuclear components of weapons to be transferred to a foreign country or to get beyond the custody of the United

States forces. In turn, the Joint Committee in its report, and members of the Joint Committee on the Floor of the Congress, defended the amendments to the law and the agreements thereunder, stating that no transfer of weapons or nuclear components was intended or permitted and that the United States would maintain custody of such weapons.....

"We therefore have a right to assume that any program the President may have to share our arms with our allies will not violate this provision, unless a change in the law is requested by the President and approved by the Congress."(52)

Chairman Anderson was referring to the weapons custody question which is an example of the problem of keeping faith with Congress. The student of civilian-military relationships might appropriately examine the representations by the Defense Department in the 1958 NATO hearings that custody of nuclear weapons components would be maintained and protected separate from the carrying vehicle; i.e., aircraft or missile.(53) The much publicized "2 key" system apparently involves the "mating" of the U.S.-owned nuclear warhead with the foreign-owned missile, and at the most the United States has joint-custody or joint-possession of such weapons.

There may undoubtedly be good reasons from a technological, operational and policy standpoint supporting changes such as the above. But in keeping faith with Congress, the question arises as to whether they should not have been disclosed and discussed, preferably in public, in order to determine whether the law or its intent was being followed before action was taken.(53-A)

A closely related aspect of keeping faith with Congress concerns following procedures established by Congress for review by Congress of proposed projects or arrangements. If such procedures are bypassed, questions of law and comity are raised. In this connection, our political scientist might inquire as to whether or not the United States' "nuclear weapons stockpile agreements" with NATO countries are bypassing the procedures established for Congressional review under the sixty day provision in section 123 d. of the Atomic Energy Act of 1954.

* * * * * *

Joint Committee Study on Status of Civilian Control

In view of the problems discussed in this paper, and renewed interest by Joint Committee members in certain aspects of the military applications of atomic energy, it is not surprising that the Joint Committee staff has been instructed to undertake a study in this area. The following subjects have been tentatively designated for study:

(1) Weapons custody and transfer arrangements, both between the Atomic Energy Commission and the Department of Defense, and between the United States and its military allies;

(2) Security classification of military information and materials;

(3) System of determining military requirements, and methods of financing such requirements;

(4) Responsibilities for safety of atomic weapons, nuclear submarines and military reactors; and

(5) Relationships between organizations responsible for military applications of atomic energy.

Political scientists may be most interested in those aspects of the study dealing with weapons custody arrangements and organizational relationships. The weapons custody arrangements may be particularly interesting, because certain "fictions" have developed between AEC and the Defense Department on custodial responsibilities, and the question is now presented whether these fictions are also being applied between the United States and foreign countries under stockpile agreements.

All of these subjects, in one way or another, bear upon the complex question of civilian control over the most devastating and powerful forces yet devised by man: Atomic weapons and nuclear energy. Our objective is to strike a proper balance so that peacetime policy decisions affecting the national defense and the public health and safety may be made by responsible civilian governmental authorities, and yet make possible rapid and effective military applications, if so directed by the President.(54) The problem is growing in magnitude and complexity, as first our own services, and now our allies, become armed with an "atomic capability." It is a problem worthy of constant vigilance and study by the Congressional "watchdog": the Joint Committee on Atomic Energy.

THE JOINT CONGRESSIONAL COMMITTEE ON ATOMIC ENERGY AND THE CIVILIAN CONTROL OF ATOMIC ENERGY

Footnotes

(1) For a fairly recent discussion of the civilian control issue in the context of other post-war problems see Walter Millis, Harvey C. Mansfield, and Harold Stein, Arms and the State (New York 1958) at pp. 155-169.

(2) See John A. Simpson, "The Scientists as Public Educators: A two-year summary, "Bulletin of The Atomic Scientists, Vol. 3 (Sept. 1947), pp. 243-246.

(3) Byron Miller, "A Law Is Passed--The Atomic Energy Act of 1946," The University of Chicago Law Review, Vol. 15 No. 4 (Summer 1948) 799-822 at p. 817. (P. 817) It should be noted, however, that the Manhattan Engineer District (MED) operated autonomously from the regular military services, and achieved spectacular success in its research and development effort.

(4) See generally James R. Newman and Byron S. Miller, "The Control of Atomic Energy" (New York 1948) at pp. 7-13; 39-45.

(5) See generally Harry S. Truman, "Memoirs" (Garden City NY 1955) Vol. 2, pp. 2-16; also letter dated Feb. 2, 1946 from Pres. Truman to Senator Brien McMahon, New York Times, Feb. 3, 1946, 8:1, 2, 3.

(6) Report, Atomic Energy Act of 1946, Special Committee on Atomic Energy, United States Senate, 79th Cong., 2d Sess., S. Rep. 1211, 1946, at pp. 5, 6; 11, 12.

(7) See Walter Millis, "The Forrestal Diaries" (New York 1951) pp. 458, 460.

(8) "Truman Declares Russia Forces U. S. Into Bomb Secrecy... Military Role is Barred...." New York Times July 25, 1948 1:5 and 4: 1, 2, Text of President's Statement, 4: 1, 2, 3. For discussion of background of military vs. civilian control and political and technical arguments of AEC and DOD respectively, see news article by Hanson Baldwin entitled "Military May Get Atomic Bomb: President's Approval Could End Civilian Control"--New York Times, June 10, 1948, 9: 1, 2.

(9) Report, Special Committee on Atomic Energy, op. cit. footnote 6 at pp. 29, 30.

(10) Clinton P. Anderson and James T. Ramey, "Congress and Research: Experience in Atomic Research and Development," THE ANNALS, Vol. 327 (Jan. 1960) pp. 85-94, at pp. 90, 91.

(11) See "Separate Views of Representative Holifield and Representative Price on H. R. 9757"; H. Rep. #2181-83rd Cong. 2d Sess., p. 137.

(12) Joint Committee Press Release #135, March 19, 1958, with speech attached.

(12a) Congressional Record, 86th Cong., 2d Sess. (Daily Edition), February 9, 1960, p. 2169.

(13) Statement by Senator Clinton P. Anderson, Chairman Joint Committee on Atomic Energy, February 3, 1960. Joint Committee Press Release No. 253-A.

(14) Morgan Thomas and Robert M. Northrop, "Atomic Energy and Congress" (Ann Arbor 1956) at p. 46. This book provides a good running account of the civilian vs. military problem up to 1956 in the context of other atomic energy events.

(15) Section 143 Atomic Energy Act of 1954, P.L. 83-703, 42 USC, Sec. 2163.

(16) Ibid Section 142c. and 142 d. 42 USC, Sec. 2162 c. and d.

(17) H. R. 10348, S. 3164; 85th Cong., 2d Sess. 1958.

(18) Section 6 of H. R. 10348. op.cit. footnote 17.

(19) Hearings, "Amendments to Atomic Energy Act of 1954 to Provide for Greater Exchange of Military Information and Material With Allies," Joint Committee on Atomic Energy, 85th Cong., 2d Sess. 1958 at pp. 374-385; 387-389; 410-425; 435-444.

(20) Report, "Amendments to the Atomic Energy Act of 1954 as amended" (to provide for Greater Exchange of Military Information and Material With Allies), Joint Committee on Atomic Energy, H. Rept. 1849, 85th Cong., 2d Sess. 1958, at pp. 7-10.

(21) Section 144 c. and 91 c.(4) restricted cooperation to nations which have "made substantial progress in the development of atomic weapons." For explanation of what is meant by "substantial progress" see Report cited in footnote 20 at p. 12.

(22) Section 123 d. See Report op.cit. footnote 20 at pp. 16-17.

(23) Congressional Record, 85th Cong., 2d Sess. July 15, 1958 at p. 13803; Report by Managers of House, Conf. Rept. No. 2236, July 21, 1958.

(24) S. 2569, H. R. 8754 as introduced and Report, "Amendments to the Atomic Energy Act of 1954, as amended." Senate Rept. 871, Joint Committee on Atomic Energy, 86th Cong., 1st Sess., p. 2.

(25) Hearings, "Review of Naval Reactor Program and Admiral Rickover Award," Joint Committee on Atomic Energy, 86th Cong., 1st Sess. 1959, at pp. 4-11.

(26) The period of 1950-55 is covered in great thoroughness by Thomas and Northrop in their book cited in footnote 14.

(27) Joint Committee Press Release No. 105, dated Dec. 10, 1957, with letter of Dec. 5, 1957 attached.

(28) Hearings, "Naval Reactor Program and Shippingport Project," Joint Committee on Atomic Energy, 86th Cong., 1st Sess., at p. 98.

(29) See Morgan Thomas, footnote 14, at pp. 104-108; 126-131.

(30) See Chronology of Joint Committee interest in greater plutonium in Report, "Authorizing Appropriations for the AEC in accordance with Section 261 of the AEC Act of 1954, as amended," House Rept. 2108, 85th Cong., 2d Sess., appendix 1, pp. 24-26.

(31) P.L. 85-162 (AEC Authorization Act for Fiscal Year 1958) 71 Stat. 403- Project 58-b-8, Production reactor for special nuclear material, development, design and engineering study, $3,000,000.

(32) P.L. 85-590 (AEC Authorization Act for Fiscal Year 1959) 72 Stat. 490 - Project 59-a-5, Production reactor facility for special nuclear materials, convertible type, Hanford, Washington $145,000,000.

(33) Report, "Authorizing Appropriations for the Atomic Energy Commission in accordance with Section 261 of the Atomic Energy Act of 1954, as amended," H. Rept. 2108, Joint Committee on Atomic Energy, 85th Cong., 2d Sess., 1958, p. 5.

(34) Ibid, page 9.

(35) Clinton P. Anderson, "The Outlook for the U.S. Atomic Energy Program," Nucleonics, Vol. 17, No. 3 (March 1959), pp. 77-81.

(36) The Advisory Panel on Reactor Products consisted of the following members: Mr. Gordon Dean, senior vice president, General Dynamics Corp.; Dr. John Harold Lampe, dean of engineering, North Carolina State College; Dr. John A. Wheeler, professor of physics, Palmer Physical Laboratory, Princeton University; Mr. J. Kenneth Mansfield, assistant to the director, nuclear division, Combustion Engineering, Inc.

The Underseas Warfare Advisory Panel to the Military Application Subcommittee of the Joint Committee on Atomic Energy consisted of the following members: Dr. Harvey Brooks, dean of engineering and applied physics, Harvard University; Dr. Ivan A. Getting, vice president, engineering and research, Raytheon Manufacturing Corp.; Dr. Gaylord P. Harnwell, president, University of Pennsylvania; Mr. Kenneth Mansfield, assistant to the general manager, nuclear division, Combustion Engineering, Inc; Dr.

Oskar Morgenstern, professor of economics, Princeton University; Dr. Roger Revelle, director, Scripps Institution of Oceanography.

(37) Hearings, "The Nature of Radioactive Fallout and Its Effects on Man," Special Subcommittee on Radiation of the Joint Committee on Atomic Energy, Parts 1-3 and Index, 85th Cong., 1st Sess., 1957; Hearings, "Fallout from Nuclear Weapons Tests," Special Subcommittee on Radiation of the Joint Committee on Atomic Energy, 86th Cong., 1st Sess., 1959.

(38) Hearing, "Biological and Environmental Effects of Nuclear War," Special Subcommittee on Radiation, Joint Committee on Atomic Energy, 86th Cong., 1st Sess., 1959.

(39) Hearings, "Technical Aspects of Detection and Inspection Controls of a Nuclear Weapons Test Ban," Special Subcommittee on Radiation and Subcommittee on Research and Development, Joint Committee on Atomic Energy, Vol. 1-2, 86th Cong., 2d Sess., 1960.

(40) Joint Committee Prints as follows:

Summary-Analysis of Hearings, The Nature of Radioactive Fallout and Its Effects on Man, August 1957;

Summary-Analysis of Hearings, Fallout from Nuclear Weapons Tests, August 1959;

Summary-Analysis of Hearings, Biological and Environmental Effects of Nuclear War, August 1959;

/ Summary-Analysis of Hearings, Technical Aspects of Detection and Inspection Controls of a Nuclear Weapons Test Ban, May 1960.

(41) Congressional Record, 85th Cong., 2d Sess., July 17, 1956 at pp. 13066-13067.

(42) Statement by Senator Clinton P. Anderson, op. cit. footnote 13.

(43) Congressional Records, 86th Cong., 2d Session (Daily Edition) February 9, 1960 at pp. 2167-2168; and March 9, 1960 at pp. 4680-4683.

(44) House Report #1849, op. cit. footnote 20, at p. 10.

(45) Joint Committee on Atomic Energy Press Release #210, March 19, 1959; and Press Release #211, March 22, 1959.

(46) Transcript of President Eisenhower's Press Conference of February 3, 1960, New York Times, February 4, 1960, p. 12.

(47) Statement by Senator Clinton P. Anderson, op. cit. footnote 13.

(48) "Atomic Policy Discussed: Talks Concerning Resumption of Tests, Custody Issue," Baltimore Sun, February 5, 1960, p. 8.

(49) See, for example, "The Truth About Missiles: Where U.S. Thors Stand Guard," U.S. News and World Report, February 29, 1960, at pp. 50-51. Under this arrangement, the nuclear warhead is placed on the missile, and the launching of the missile is controlled by a key held by a U.S. officer and by a key held by an officer of the NATO country in which the base is located.

(50) See, for example, "Key to Existence," Time Magazine, August 8, 1960, at p. 21.

(51) Perhaps what is needed most is a liberalization of security practices to permit a greater discussion of policy issues, and a tightening up on the disclosure of the details of technological developments in the weapons field.

(52) Statement by Senator Clinton P. Anderson, op.cit. footnote 13. Section 92 of the Atomic Energy Act of 1954 prohibits any person to "transfer" or "possess" an atomic weapon. Section 11 q. defines person to mean a U.S. government agency, and any foreign government or nation and any representative thereof.

(53) Hearings, op.cit. footnote 19, at pp. 101-104.

(53a) A more sensible alternative would be to draw on the experience of the United Nations. For example, a joint custody arrangement between an international NATO custodial force composed of officers and men of all NATO countries and a U.S. force of sufficient size to protect our nuclear warheads might make the most sense. In such an arrangement there would be no incentive or means of a military coup by the "host" country to take over the U.S. "key."

(54) For discussions of some of the problems involved see:
Gordon Dean, "Report on the Atom" (New York 1957), pp. 131-143; and
Thomas E. Murray, "Nuclear Policy For War and Peace" (Cleveland and New York 1960), pp. 181-218.

SECRET

November 15, 1960

DRAFT OUTLINE

STUDY OF CIVILIAN-MILITARY RELATIONS IN FIELD OF ATOMIC ENERGY

I. Legislative History of Civilian-Military Relationships in Atomic Energy Field with Particular Emphasis on Topic Headings II-VI

A. Atomic Energy Act of 1946 and Amendments (McMahon Bill)

Will cover organization of AEC, establishment of AEC, JCAE, MLC, Military Application Division, etc.; weapons and military reactor controls and safety, security of information and material. Include earlier legislative proposals and recommendations of House and Senate Committees.

B. Atomic Energy Act of 1954 and Amendments

Proposal by Administration as compared with JCAE bill and as passed. 1958 Military Cooperation amendments and 1959 proposed bill as to responsibility for weapons and military reactor safety.

II. Weapons Custody and Transfer Arrangements

A. Custody vis-a-vis AEC-DOD

Chronological review of arrangements within and without interior zone of U.S., including date and type of revisions, authority and rationale.

B. Custody vis-a-vis U.S.-Foreign Nations

Chronological review of arrangements to include date and type of revisions, authority and rationale. NATO and other stockpile agreements, alert procedures, two-key and other arrangements.

C. Command and Control

Review of method(s) by which authority will be able to transfer and release weapons for use. Who will have authority to make decisions and lines of communication.

D. Problems of Current Custody and Transfer Arrangements

Discussion of such problems as (1) the operational difficulties of assuring adequate U. S. control to prevent accidental or unauthorized use of weapons, and at the same time assuring quick response capability; (2) the rising doubts of allies that U.S. will release nuclear weapons in certain situations; (3) the developments of legal fictions and questionable legal compliances.

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E. Alternative Courses of Action

Review of various alternative arrangements such as:

(1) Reversion to system of separate U.S. possession and protection of nuclear warhead or nuclear component apart from carrier as contemplated in 1958 amendment;

(2) Continuation of current fictional custody arrangements, involving some elements of joint possession and control of nuclear bombs and warheads between U. S. and "host" country in NATO alliance;

(3) Express joint possession arrangement between U.S. and NATO as a separate entity through a multinational NATO task force group, in line with suggestion by JCAE staff in summer 1960;

(4) Transfer of nuclear weapons from U.S. to independent NATO task force;

(5) Transfer of nuclear weapons to separate NATO countries.

(6) Others

III. Safety Aspects

A. Weapons

1. DOD-AEC responsibilities re setting and enforcement of standards of operation, maintenance and storage.

2. Methods of assuring against accidental and non-authoritative use within and without interior zone, U.S. and non-U.S. operational forces. Problems and alternative solutions.

B. Naval Reactors

DOD-AEC responsibilities as to setting and enforcing standards. Review of DOD-AEC agreements to date and authority for. Discussion of problems and unique two-hat situation of Admiral Rickover.

C. Other Military Reactors

Discussion of DOD-AEC responsibilities as to setting and enforcing standards to the extent they differ or may be expected to differ from Naval Reactors.

IV. Security Control of Information and Material

A. Classification

AEC-DOD responsibility for determination and protection of Restricted Data and other Defense information. Review original justification and reasons for maintenance of Restricted Data, formerly Restricted Data as separate from other Defense Information, and if still justified. Advantages and disadvantages.

B. Security

AEC-DOD responsibility and standards for protection of classified information and material. Review of methods of granting clearance, degree of background investigation required. Discussion of DOD certification practices and methods of ascertaining basis for certification.

V. Military Requirements

A. Methods of Determining

Discussion of similarity and differences between a Research and Development Project and a Production Program. Review of different Phase studies and chain of command in determining a requirement. Factors that go into administration.

B. Effect on Level of Effort and Policy Matters

How is level of effort determined and by whom. What are procedures for implementing and how are conflicts disposed of.

C. Impact of Budgetary and Fiscal Controls

Discussion of AEC and DOD budget preparations and role of Bureau of Budget in establishing budget levels.

VI. Organizational Aspects

A. Role of AEC

B. Role of MLC

To what extent is its current operation in accordance with its original purpose. What role does it play in recommending policy?

C. Role of DOD

D. Role of State Department

Review of its functions of formulating policy and negotiating agreements for cooperation in military atomic energy matters.

E. Role of JCAE

F. Joint AEC-DOD Organizations for Projects

Discussion of Aircraft Reactors Branch, Army Reactors Branch, Naval Reactors Branch as two-hat organizations. Review of Joint Member Groups and Boards, such as Joint Atomic Energy Information Group (JAEIG).

TOP SECRET

January 28, 1960

LEGAL MEMORANDUM RE PROPOSAL TO ARM U. K. PLANES WITH U. S. ATOMIC WEAPONS

THIS DOCUMENT CONSISTS OF 6 PAGES, COPY 10 OF 10, SERIES A

Proposed Arrangements.

Under the proposed arrangements the U. S. would provide up to [redacted] DOE 1.5(b) DOE 1.5(b) [redacted] to equip [redacted] aircraft. The [redacted] with an atomic yield of [redacted] is an DOE 6.1(a) integral weapon, meaning that the nuclear and non-nuclear components cannot be separated. Thus the weapon, including the nuclear component, would be physically mounted on U.K. planes. After a declaration of Maximum Readiness (Air Defense Readiness) by U.K. authorities, confirmed by CINCEUR or higher authority, the aircraft could take off. After a target had been identified as hostile under agreed Rules of Interception and Engagement at least as restrictive as these applying to U.S. forces defending North America, and confirmation of this hostile identification by U.S. CINCEUR or one of his chief subordinates, the weapon could be expended. If the planes returned to the ground without expending the weapons, "custody" of the weapons would revert to the U.S.

DOD and State Department Legal Arguments.

The DOD and State Department legal memoranda argue in the alternative that (1) no "transfer" (as prohibited by Section 92) would take place; and (2) if a transfer is contemplated, it can be legally sustained under the President's Constitutional powers as Commander-in-Chief. Thus the memorandum by the DOD General Counsel (furnished the Joint Committee by letter dated December 2, 1959) concluded:

RESTRICTED DATA
This document contains restricted data as defined in the Atomic Energy Act of 1954

TOP SECRET

"Consequently, although in my opinion there would be no transfer of nuclear weapons involved in the proposed arrangements with the United Kingdom if it were nevertheless concluded that such a transfer had taken place, that transfer would take place only in the face of hostilities, under the undoubted Constitutional authority of the President to effectuate the intent of Congress in passing the Atomic Energy Act and in agreeing to Agreements for Cooperation entered into under that Act."

Relevant Provisions of the Atomic Energy Act.

Section 92 of the Atomic Energy Act of 1954, as amended in 1958, provides as follows:

"It shall be unlawful, except as provided in Section 91, for any person to transfer or receive in interstate or foreign commerce, manufacture, produce, transfer, acquire, possess, import, or export any atomic weapon..."

Section 91 authorizes transfer after certain findings by the President, and subject to Congressional review, of the material components of a "do-it-yourself kit", including special nuclear material, but Section 91 does not authorize transfer of fabricated nuclear components of weapons.

Subsection 123d. added in 1958, provides for Congressional review of proposed military Agreements for Cooperation, and provides that no such agreement shall become effective "if during such sixty-day period the Congress passes a Concurrent Resolution stating in substance that it does not favor the proposed Agreement for Cooperation..."

Subsection 11q. of the Act in defining "person" (as used in Section 92 above and elsewhere), states that the term "person" means:

"Any individual, corporation...any foreign government or nation of any political subdivision or any such government or nation, or other entity..."

Missing Facts.

The DOD has not yet provided all facts on the crucial question of how U.S. "custody" will allegedly be maintained after the weapons are mounted on U.K. planes. The DOD states:

"The detailed procedures for maintaining custody of the weapons when they are mounted on U.K. aircraft on the ground have not been prescribed and this will be a matter to be resolved by the U.S. Air Force in collaboration with the Royal Air Force with subsequent approval by the Secretary of Defense..."

LEGAL ANALYSIS

Meaning of "Transfer".

The first DOD and State Department legal argument is that the contemplated acts do not constitute a "transfer". The word "transfer", as defined in the dictionary, and as used in other statutes and legal situations connotates a physical moving from one place to another, accompanied by a taking over of "possession" or "control". 1/

In the instant case, the weapons would be physically moved from their present place of storage in U.S. igloos and mounted on U.K. planes and

1/ Black's Law Dictionary defines the word "transfer" as follows: "Transfer": To convey or remove from one place, person, etc. to another, pass or hand over from one to another; specifically to take over the possession or control of...

subsequently, under certain conditions, the plane might take off. In each case, there would be such a removal from U.S. forces, and such a dilution of U.S. "possession" and "control" that it might well be argued that a "transfer" occurs, either when mounted on the plane or at the time of take-off.

The Supreme Court has said in a tax case that:

> "The essence of a 'transfer' as respects taxation is the passage of control over the economic benefits of property rather than any technical changes in title." Sanford's Estate v. Commissioner of Internal Revenue, 60 S. Ct. 51, 55, 308 U.S. 39, 84 L. Ed. 20.

In this case, where the military benefits are to be considered rather than the economic benefits, it might well be argued that a "transfer" had occurred.

In any case, the meaning of the word "transfer" is not without legislative history as used in Section 92. During the 1958 hearings, in explaining that the U.S. would not transfer, DOD, AEC and State Department witnesses stated repeatedly that we would not "deliver", "furnish", "provide", or "make available" weapons but that we would "hold" them in our "possession". 2/

Constitutional Questions.

The President's Constitutional powers, as against those of the Congress, have been a matter of give and take over the years. The President is the "Commander-in-Chief" and the "Chief Executive" but the Congress, as well as the

2/ See testimony during hearings in 1958 on "Amending the Atomic Energy Act of 1954 - Exchange of Military Information and Materials With Allies", including the following: AEC Chairman Strauss at page 33; General Starbird at pages 34 and 35; DOD Under Secretary Quarles at page 101; General Loper at pages 103 and 190; AEC Commissioner Vance at page 249; and Secretary Dulles at pages 447, 449, 461, 468, 471 and 473.

President, "is trustee of the national welfare." 3/

The Congress has Constitutional responsibilities also: "to raise and support armies", "to provide and maintain a Navy", and to raise monies and appropriations for military purposes.

In the most recent test of the respective Constitutional powers of the President and the Congress, Mr. Justice Jackson, a former Attorney General, stated that the Presidential powers "are not fixed but fluctuate depending upon their disjunction or conjunction with those of Congress." 4/

He went on to reason that when the President takes measures not compatible with the expressed or implied will of Congress, his power "is at its lowest ebb." 5/

In the instant case, Congress, while continuing the ban on "transfer" of completed weapons, by virtue of the 1958 amendments provided a procedure for atomic weapons sharing with Great Britain. Congress made it possible for Great Britain to equip its interceptor aircraft, as well as other defense components, by manufacturing its own atomic weapons with the aid of a "do-it-yourself kit" furnished by the U.S.

However, it is proposed in this case not to follow the method authorized by the Congress in considering this subject in 1958. But, the Supreme Court had stated "that where Congress has laid down specific procedures to deal with the type of crisis confronting the President, he must follow those procedures in meeting

3/ Mr. Justice Douglas in Youngstown Sheet and Tube Co. v. Sawyer, 343 U.S. 579, 629.
4/ Youngstown Sheet and Tube Co. v. Sawyer, 343 U.S. 579, 635.
5/ Same, at page 638.

the crisis..." 6/

Admittedly, the instant case is different from that of the Youngstown Company case but the joint responsibility of therPresident and the Congress in foreign affairs has been recognized by all Constitutional authorities. For example, Professor Corwin in his treatise, "The President, Office and Powers", (1957), wrote as follows:

> "But whatever emphasis be given the President's role as 'sole organ of foreign relations' and the initiative thereby conferred on him in this field; the fact remains that no presidentially devised diplomatic policy can long survive without the support of Congress, the body to which belongs the power to lay and collect taxes for the common defense, to regulate foreign commerce, to create armies and maintain navies, to pledge the credit of the United States, to declare war, to define offenses against the law of nations and to make 'all laws which shall be necessary and proper' for carrying into execution not only its own powers, but all the powers 'of the government of the United States and of any department or officer thereof.' Hence the only question that can arise concerns the character the relationship with Congress thus imposed on the President by the Constitution shall assume at the President's hands. Shall it be the relationship of cooperation between constitutionally equal partners, or shall it be the relationship of principal and instrument; a relationship resting on jointly held convictions as to what the interests of the United States require, or on the calculation that when Congress is presented with a sufficiently imperative fait accompli it can be counted on to come to heel?" (Emphasis added)

Statements by Members of the Joint Committee.

In any event, regardless of the legal and Constitutional arguments, members of the Joint Committee on Atomic Energy made important statements on the floors of the House and Senate when this subject was considered in 1958.

For example, Congressman Holifield stated in the House:

> "The transfer of atomic hydrogen weapon material or atomic hydrogen weapon information is too important a matter to rest in the hands of any one man regardless of who that man is, whether he be a Democrat or a Republican, and even though he may have the best intention in the world. This is so important that the Congress itself should work its will upon this particular matter.

6/ Same, at page 662.

Now, we have retained safeguards throughout this bill setting up standards of procedure and criteria through which the executive branch shall go in approaching a nation such a proposal to transfer all or part of the materials that are involved here. But, in addition to these safeguards that are written throughout the bill, there is the overriding safeguard of final decision by action of the Congress."

(Congressional Record of June 19, 1958)

Congressman Hosmer also stated in response to a question from Mrs. Church:

"Mrs. Church. Then, if I understand correctly, if the gentleman will yield further, no finished weapons are to be furnished under these agreements."

"Mr. Hosmer. No finished weapons whatsoever."

(Congressional Record of June 19, 1958)

Similar statement were made by other members of the Joint Committee to the effect that the Congress would have a voice and responsibility in the sharing of atomic weapons with other nations.

Conclusions.

This memorandum has discussed some of the major legal and Constitutional questions presented by the proposed arrangements. Although it is now an open and shut case either way, it is safe to say, especially upon review of the legislative history, that substantial legal questions are presented, and that good legal arguments are available that the proposed acts may constitute a "transfer" or "possession" by the U.K. of U.S. atomic weapons, as prohibited by Section 92 of the Atomic Energy Act. As for the Constitutional aspects, the Supreme Court has stated that the President's Constitutional powers must be weighed against those of the Congress, and that when the Congress has acted carefully in a field, the President's "inherent" Constitutional powers are correspondingly limited. In

this case, the special war powers of the President would not become operable until the outbreak of "hostilities". The arming of the U.K. planes would take place during peacetime when the President would be bound by the statutory prohibitions.

In any event, regardless of the legal and Constitutional problems posed, statements were made by members of the Joint Committee during floor debate to the effect that atomic weapons cooperation with other nations would be subject to review by the entire Congress.

Alternatives to the proposed arrangements might include:

(a) Proceeding under the 1958 amendments whereby the U.K. could manufacture the GENIE under a "do-it-yourself kit" with the necessary information and materials furnished by the U.S.;

(b) Consideration of a Congressional resolution authorizing the proposed cooperation (as in the Formosa Straits and Near East resolutions);

(c) Consideration of an amendment to the Atomic Energy Act authorizing this type of cooperation under conditions deemed appropriate by the Congress; or

(d) Some alternative military solution, such as stationing of U.S. fighters (as well as bombers) in the U.K. rather than arming U.K. fighters with U.S. atomic weapons.

JOINT COMMITTEE ON ATOMIC ENERGY
INTEROFFICE MEMORANDUM

SECRET

June 15, 1960

TO: Hon. Clinton P. Anderson, Chairman
Hon. Chet Holifield, Chairman, Subcommittee on Legislation

FROM: James T. Ramey, Executive Director

SUBJECT: PROPOSED AMENDMENT TO SECTION 92 OF THE ATOMIC ENERGY ACT

Set forth below for your review is a draft of a proposed amendment to Section 92 of the Atomic Energy Act to clarify the present confused situation with respect to the custody and transfer of atomic weapons vis a vis foreign nations and organizations.

This proposed amendment would restate the Joint Committee's interpretation of Section 92 that United States personnel must maintain sole and exclusive possession of atomic weapons in peacetime, subject to two provisos. The first would permit joint possession of weapons by United States personnel and personnel of the armed forces of the United Kingdom, or of the armed forces of NATO. The second proviso would provide that after war or hostilities, or after declaration by the President that hostilities appear imminent and a national emergency exists, the President may authorize the transfer of weapons to a nation or regional defense organization cooperating under subsection 144 b.

The proposed amendment would read as follows:

"Section 92 of the Atomic Energy Act of 1954, as amended, is amended by inserting after the first sentence thereof, the following:

"Any atomic weapon situated outside the United States shall be maintained in the sole and exclusive possession of the United States personnel: Provided, however, That the President may authorize joint possession by United States personnel and personnel of the armed forces of the United Kingdom of Great Britain and Northern Ireland or joint possession by United States personnel and multinational personnel of the armed forces of the North Atlantic Treaty Organization provided any such cooperation is undertaken pursuant to an agreement under subsection 123 d.: And provided further, That after outbreak of war or hostilities, or after public declaration by the President that hostilities appear imminent and a national emergency exists, the President may authorize the transfer of an atomic weapon to another nation or regional defense organization cooperating with the United States under subsection 144 b."

* * * * * * *

SECRET

Memo June 15, 1960

The following is a brief explanation of the amendment:

1. The first sentence is a restatement of the Joint Committee's interpretation of the law as it now stands; i.e., that the United States must maintain sole and exclusive custody of weapons during peacetime.

As you know, the Departments of Defense and State do not consider the present law to restrict U.S. nuclear weapons to the sole possession of U.S. personnel. The Executive Branch interprets the law to restrict nuclear weapons to the "custody" of U.S. personnel but does not interpret "custody" to be synonymous with possession. Hence, according to the Executive Branch, arrangements whereby nuclear weapons and warheads might be affixed to weapons systems operated by other nations are not prohibited by Section 92 of the Atomic Energy Act of 1954, if the U.S. retains some control over the firing of the weapon. The U.K. 2-key arrangement, which was described in the February 29, 1960 issue of U.S. News and World Report, is an example of this concept. You are familiar also with another concept which General Loper first brought to the attention of Congressman Hosmer and Van Zandt in November 1959, and which has been the subject of conferences between members of the JCAE and Chairman McCone of the AEC.

It should be noted that the United States has proposed to extend its "joint custody" arrangements to other countries besides the U.K.; i.e., [redacted] and possibly others.

DOD 1.5(a)(6)

Attached for ready reference is a copy of the Joint Committee letter of May 16, 1960 to the Secretary of State calling attention to problems raised by the "fictional" custody arrangements.

2. The first proviso contained in the suggested amendment would permit the President to authorize joint possession of atomic weapons with representatives of the armed forces of the U.K. or NATO, provided that the proposed cooperation had been submitted to Congress by an agreement for cooperation or amendment under the sixty day "veto" provision of section 123 d. This, in effect, would permit a 2-key type arrangement with the U.K. or with NATO but not with an individual country in Continental Europe or Asia in which the missile might be located. For example, it has been publicly stated that the United States is placing Jupiter IRBM missiles in Turkey and Italy to be operated by the host nation. This is similar to the Thor IRBM's in Great Britain. The suggested amendment would in practice require that if and when the warheads are affixed to the missile in peacetime, the 2-key arrangement would involve U.S. and multinational NATO personnel rather than U.S. and Continental host country personnel.

It is believed this arrangement would give greater protection against unauthorized firing of the weapon, particularly in the event of an overthrow or change of government in the host country. It likewise would reflect U.S. support of NATO as a cohesive organization rather than a group of independent uncoordinated nations.

Before such cooperation could take place, a proposed agreement or amendment must be submitted to Congress for 60 days and be subject to a Concurrent Resolution of disapproval under subsection 123 d.

3. The second proviso authorizes transfer of weapons in the event of war or hostilities to an ally or regional defense organization. This provision is consistent with the Joint Committee's interpretation of the law as amended in 1958; i.e., that the President in wartime can transfer weapons to allies and NATO.

4. The second part of the second proviso would authorize the President to transfer atomic weapons in peacetime after the President has publicly declared that hostilities appear imminent and a national emergency exists. It will be noted that this would restrict the President to a greater degree than the proposed arrangement with the U.K. which gave the Joint Committee so much concern last fall and winter. However, it does permit the President to act in peacetime after he declares an actual national emergency.

✡ ✡ ✡ ✡ ✡ ✡ ✡ ✡ ✡ ✡ ✡

In conclusion, it is believed that the above proposed amendment would make a real contribution in clarifying the current confusion on the custody, possession and transfer of atomic weapons. It would prohibit joint possession arrangements with individual countries which could lead to "accidental" wars. But it would positively authorize joint custody arrangements with the U.K. and with NATO, with the understanding that the personnel responsible for guarding and controlling the weapons in Continental Europe and the Near East would be multinational. This would lessen the chances for "trigger happy" militarists from a host country to take over missile bases and start a war.

It would also provide flexibility for transfers in case of national emergency.

CONGRESS OF THE UNITED STATES
JOINT COMMITTEE ON ATOMIC ENERGY

SECRET

May 16, 1960

Dear Mr. Secretary:

The Joint Committee is in receipt of a copy of the USSR March 3, 1960 aide-memoire on the subject of guarantees and safeguard controls of fissionable material which also contained references to the American press allegedly reporting that the United States favors making available nuclear weapons manufacturing information to its allies.

In view of recent discussions between the Joint Committee and representatives of the State Department, Department of Defense, and the Atomic Energy Commission as to the necessary controls required by the United States of nuclear warheads, I was very much interested in the March 26, United States reply. I particularly noted the following sentence from Paragraph 7 of the reply:

> "The Government of the USSR is also no doubt aware of the establishment of a NATO atomic stockpile system, an essential element of which, it should be emphasized, is that custody of atomic warheads remains exclusively with the United States in accordance with provisions of United States domestic law."

I note that the State Department thus agrees with many of us on the Joint Committee that the Atomic Energy Act of 1954, as amended, requires that until hostilities, United States nuclear weapons' components must remain exclusively within the custody or possession of our forces.

As indicated in our correspondence, hearings, floor statements and informal discussions with representatives of the Executive branch, many of us on the Joint Committee are concerned that various "fictions" have been developed concerning existing and proposed U.S. arrangements with foreign countries which in fact do not constitute exclusive custody or possession of nuclear weapons or warheads by the U.S. forces in periods short of hostilities. This not only applies to the arrangement with the U.K. which was the principal subject of our correspondence and hearing on February 2, 1960, it would apply to certain "exceptions" to the normal arrangements for the custody of "Honest John" and similar type of short range missiles by U.S. forces in NATO.

DOE 6.1(a)

The fictions seem also to contradict the facts of the arrangements with the U.K. for the Thor missile, [redacted] as to the Jupiter missile. The Thor missile arrangement with the UK, including the placing of warheads on the UK-owned missiles and the "2 key" concept has received considerable publicity. The February 29, 1960 issue of U.S. News and World Report, pages 50-51, for example, carries photographs of a joint US-UK Thor IRBM operations site in Feltwell, England, and describes the method of operation.

It is difficult to understand how a nuclear warhead attached to and made part of a weapons' system (missile or otherwise) under operational control of another nation can be considered

within the exclusive custody or possession of the United States when the only real control is, in one case, possession of one of two firing keys and, in other cases, may be only an agreement to concur in a decision to fire. With such a strained interpretation of exclusive custody, the co-operating ally also having possession of one of the firing keys or a say in the determination to fire likewise can claim exclusive custody.

I believe that this matter is of grave national policy importance and, accordingly, am forwarding copies of this letter to the Secretary of Defense and to the Chairman of the Atomic Energy Commission for their information and consideration.

Sincerely yours,

Clinton P. Anderson
Chairman

The Honorable
The Secretary of State

cc: Secretary of Defense
Chairman, Atomic Energy Commission

Read related article:

The U.S. Nuclear Presence in Western Europe, 1954-1962, Part II

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