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ANGLO-AMERICAN

ATOMIC NEGOTIATIONS 1945-1955

DISSEYATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Timothy James Botti, B.A., M.A.

* * * * *

The Ohio State University

1985

Reading Committee:
Dr. Marvin R. Zahniser
Dr. Allan R. Millett
Dr. Williamson Murray

Approved By

Advisor
Department of History
ACKNOWLEDGMENTS

I would like to thank my advisor Dr. Marvin R. Zahniser for all his help and advice on all aspects of my dissertation and program at The Ohio State University, and Dr. Allan R. Millett for his special insight and assistance. I would especially like to thank my parents Dr. and Mrs. Robert E. Botti for their indispensable love and support.
VITA

March 26, 1956 . . . . .  Born - Cleveland, Ohio

1978 . . . . . . . .  B.A., John Carroll University, University Heights, Ohio

1981 . . . . . . . .  M.A., John Carroll University University Heights, Ohio

1982-1985 . . . . .  Teaching Associate, Department of History, The Ohio State University, Columbus, Ohio

FIELDS OF STUDY

Major Field: American Diplomatic History

American Military/Strategic History in the 20th Century
Professor Allan R. Millett

Modern Western European History
Professor John A. M. Rothney

Political Science and Geography of Western Europe
Professor Earl S. Brown
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I. INTRODUCTION

Until the present time there has not been a comprehensive study of Anglo-American atomic relations 1945-55. There have been histories of the American and British atomic energy programs, but these have not attempted to analyze deeply issues and events of the bilateral atomic relationship for the simple reason that such was not their exclusive focus. Those books and articles that did concentrate on the subject suffered always from a dearth of declassified information. Happily, that scarcity has to a sufficient degree been alleviated.

The purpose of this dissertation is to describe and analyze Anglo-American atomic relations 1945-55, focusing on the one hand on intra-American policy-making and on the other on Anglo-American negotiations. Discussions between the United States and Britain involving international control of atomic energy and disarmament issues will be touched upon only where important to an understanding of the bilateral relationship. A systematic study of those discussions is, of course, not feasible here and should form part of a separate study. Nor will this dissertation explore in depth intra-British policy-making. Source material is lacking and British histories which do exist fail to provide adequate documentation. Some British historians writing about Anglo-American atomic relations, in addition, appear to fabricate facts
for political reasons. At best, their works must be considered flawed. At worst, they are patriotically inspired propaganda.

My thesis, plainly stated, is that postwar Anglo-American atomic relations were inhibited, and the British and American programs did not achieve close collaboration, because of a combination of factors—British inequality in wartime atomic energy agreements which permitted the United States to consolidate its monopoly of atomic energy, the desire of key members of the American government to preserve the atomic monopoly for the United States, legislation passed by Congress forestalling the administration from improving Anglo-American atomic relations without congressional approval, and British failure to demonstrate to the Americans British potential for future contributions in the field of atomic energy consistent with American goals. Only when these factors were mitigated or eliminated did bilateral relations marginally improve. The British, largely by their own efforts, laboriously pursued the development of atomic energy for military and civilian purposes and took haltingly slow steps to improve security standards for the protection of atomic energy secrets. The Americans, due to adverse international developments, the advent in 1953 of a President convinced of the necessity of improving nuclear cooperation with the allies, and the new nuclear strategy set forth in NSC 162/2, finally persuaded Congress to ease legal restrictions on closer collaboration. While still marginal, Anglo-American atomic relations in 1955 were significantly better than they had been ten years earlier and evidenced the potential for even more improvement.
In the immediate aftermath of the Second World War, Anglo-American relations took a turn for the worse, then recovered. Increasingly aggressive Soviet actions made clear that in order to maintain a favorable strategic position, the British and Americans had to coordinate economic, military, and diplomatic policies. The first step pointed toward rebuilding British strength, a task partially accomplished through a large postwar loan granted by the United States in December 1945. Then, under the Truman Doctrine of March 1947, the Americans assumed strategic responsibility for an important British sphere of influence, the Eastern Mediterranean. The British were left free to concentrate on protecting the Middle East. Next, the United States turned to Western Europe. Beginning in April 1948, the Marshall Plan provided billions of dollars to repair war-damaged economies and thus helped to restore the region's natural defenses against internal subversion and outside pressures. Already admirers of British efforts to develop Western European defense ties, the Americans actively encouraged and then joined the North Atlantic Treaty Organization in 1949. By the outbreak of the Korean War in June 1950, despite British difficulty with American assertions about the breadth of the international Communist threat, Anglo-American relations were approaching the intimacy of the wartime alliance.

The same degree of intimacy did not develop, however, in the critical field of atomic energy. Possessed of an atomic monopoly and hopeful of preserving it, the Truman administration did not permit the kind of functional collaboration with British that had existed during
the war. The root of the problem lay in certain wartime agreements and British inequality in those arrangements. Because the British had signed away all right to information necessary for the construction of large-scale plants and manufacture of atomic bombs, they found themselves in the postwar period without an intact atomic energy infrastructure in the British Isles and partially ignorant of how to build one. Nor were the Americans willing to reestablish and/or expand cooperation concerning atomic energy. They had decided upon a policy of trying to secure an international control agreement and avoided significant commitment to the British. Had they wanted an atomic partnership, however, they probably could have had one on very favorable terms. Confronted by the reality of heavy expenditures for atomic energy development, the British would likely have agreed to an arrangement submerging the British program into the American—but only if the British could have obtained access to atomic weapons information, cooperation on the commercial development of atomic energy, and a small supply of atomic bombs. In 1945-46, American policy-makers would not consider this.

The Congress, meanwhile, with the tacit approval of the administration, worked in 1946 on legislation designed to preserve the atomic monopoly and severely restrict the flow of secret information to foreign governments. Called the Atomic Energy Act of 1946 or McMahon Act, the law worked well. It worked so well, in fact, that thereafter the administration could attempt no improvement in atomic relations with the British without congressional approval. The Joint Committee on Atomic Energy, the congressional watchdog committee set up by the
McMahon Act, closely monitored administration negotiations and retained near veto power over proposed agreements. Using divisions among the policy-makers to increase its influence, the committee became a major factor in preventing full partnership in the atomic field.

Another factor limiting cooperation was British self-inflicted wounds. Untimely spy scandals and unwillingness to improve security standards destroyed opportunities for collaboration created by East-West tensions and especially by Soviet development of the atomic bomb. British insistence on stressing past cooperation rather than demonstrating British potential for future contributions, moreover, did not impress the practical minded Americans. They did not believe the British had much to offer. And indeed, the British atomic energy program proceeded at a relatively leisurely pace and produced an atomic bomb test only in October 1952. Owing mainly to cooperation in the control of critical raw materials and introduction of American strategic bombers into Britain in 1948, the British preserved a marginal atomic connection but little more. The sorry state of atomic relations became a troubling irritant and an anomaly in the harmonious feeling that generally characterized Anglo-American postwar relations.

The anomaly endured into the 1950's. Even after Winston Churchill returned to power in October 1951, the Americans evidenced little enthusiasm for cooperation. Much respected by the Americans and in a stronger political position than the outgoing Labor government, Churchill tried to restore American confidence in Britain's worth as a reliable atomic partner. Efforts were undertaken to correct British security standards—a very sore point with the Americans because of the
aforementioned spy scandals—insistent and reasoned requests were made for coordination of atomic strategy between the British and American Chiefs of Staff, and dogged progress was made in the manufacture of Britain's atomic bomb. Lastly, the late 1954 decision to expand greatly the British stockpile of atomic weapons and to undertake the development of the hydrogen bomb significantly increased the value of British cooperation to the United States in the nuclear sphere.

But British actions alone, though important, were not sufficient to restore Anglo-American atomic cooperation. The change of American administration in 1953, together with international developments and continuing concerns about Soviet aggression, finally put cracks in the solid wall of American resistance to collaboration. The second important step toward closer atomic ties, then, occurred when Dwight D. Eisenhower became President in January 1953. Far more sympathetic to British pleas for cooperation than his predecessor and acutely aware of the necessity of tightening defense ties with principal allies to face the growing Soviet challenge (symbolized by the Soviet hydrogen bomb test of August 1953), he favored atomic collaboration from the start. Accordingly, he campaigned actively for a change in the McMahon Act to permit greater information exchanges and cooperation with the British. Cooperation was all the more imperative, he argued, because of his "New Look" defense strategy emphasizing maximum reliance on nuclear weapons and allies. Successful in persuading Congress in 1954 to amend the law, he was then able, in June 1955, to conclude with the British a limited agreement for cooperation in both the military and commercial/industrial uses of atomic energy. Although
far short of what the British had hoped for and ultimately unworkable
due to Atomic Energy Commission and Joint Committee on Atomic Energy
objections to releasing information which might have revealed atomic
weapon design and manufacturing data, the June 1955 pact set the stage
for further agreements. In 1958, the British and Americans at last
achieved a substantial partnership in the nuclear sphere.

* * *

Three agreements pertaining to Anglo-American atomic rela-
tions are critical for an understanding of postwar relations—the
Quebec Agreement of August 19, 1943, the Agreement and Declaration of
Trust of June 13, 1944, and the Hyde Park Memorandum of September 19,
1944. The Quebec Agreement required the British to submerge their
atomic program—all personnel, scientific and technical knowledge, and
resources—into the American program. Both countries agreed never to
use the atomic bomb against the other and not to use it against, nor
give information on atomic energy to, a third party without the consent
of the other. Because the United States assumed the "heavy burden of
production" of the atomic bomb, the British government recognized that
"any postwar advantages of an industrial or commercial character shall
be dealt with as between the United States and Great Britain on terms
to be specified by the President of the United States to the Prime
Minister of Great Britain." The Prime Minister, in addition, expressly
disclaimed any British interest in the industrial and commercial
aspects of atomic energy beyond what the President considered "just and
fair" and in "harmony with the economic welfare of the world." The
agreement provided for full and effective collaboration, but only so
far as was necessary to complete the project and only in the field of scientific research and development. In the field of design, construction, and operation of large-scale plants, information exchanges would be regulated by "such ad hoc arrangements as may, in each section of the field, appear to be necessary or desirable if the project is to be brought to fruition at the earliest moment." A Combined Policy Committee (CPC) with three American, two British, and one Canadian representatives would make the ad hoc arrangements and other decisions necessary to carry out the agreement.\(^1\)

Doctors James B. Conant and Vannevar Bush, President Franklin D. Roosevelt's principal scientific advisors, objected to the agreement. They believed the atomic partnership would lead to an unfortunate coupling of British and American postwar foreign policies and result in foreclosure of an atomic energy agreement with the Soviets. Roosevelt overrode their objections. He believed an Anglo-American atomic partnership one key to peace in the postwar world and took a second step—without the knowledge of his advisors—in that direction in the Hyde Park Memorandum. He and Winston Churchill agreed that full collaboration in developing atomic energy for "military and commercial purposes should continue after the defeat of Japan unless and until terminated by joint agreement."\(^2\)

These two agreements, and the Agreement and Declaration of Trust which created a Combined Development Trust (CDT) under the CPC for the control of uranium and thorium supplies in areas beyond the physical and legal jurisdiction of Britain and the United States,\(^3\) were executive agreements made by Roosevelt under his authority as
President. Although binding on the United States internationally and part of the supreme law of the land, they had less force than treaties approved by the Senate and would have to be considered null and void should the Congress pass contrary legislation. Knowledgeable of the American political system, the British understood this and sought stronger commitment after the war.4

As a practical matter, the Quebec Agreement placed the British in a position of inferiority in the atomic relationship. Nowhere in the agreement did the United States promise to give Britain the "secret" of the atomic bomb—that is, the technical information required to design, construct, and operate the large-scale plants necessary for the manufacture of fissionable material and to build the bomb itself. Nor did the United States promise to transfer industrial or commercially valuable information discovered during the development of the bomb. The President had sole discretion to decide what the British would receive. Churchill and his successors, it must be said, expected far-ranging cooperation after the war and recognition of Britain's right to share the benefits of the wartime project. Their disappointment and bitterness would be great when cooperation and recognition did not materialize.

1Department of State, Treaties and Other International Agreements, 5:1114.


3 Agreement Between the United States and United Kingdom for the Establishment of the Combined Development Trust, Hyde Park, June 13, 1944, Lot File 55 D 540, Box 2, FRUS, 1944, 2:1026-1028.

II. THE ILLUSION OF COOPERATION

"Our 'secret' in respect to atomic bombs probably will not be a 'secret' for more than five years; but it seems to me that during these five years we must keep it to ourselves through every possible precaution so that we can exercise maximum international pressure for effective and dependable international control."

--Senator Arthur Vandenberg; April 18, 1946

The American attitude toward cooperation in the field of atomic energy with the British in the postwar world was initially very negative. Opposition centered around two broad groups—those who feared that cooperation would ruin any chance for an international control agreement with the Soviets and those who wanted to retain an American monopoly as the best method of preserving peace and American security. The resolve of this latter group was greatly strengthened in the late 1940's because of the Cold War and manifested itself most sharply in Congress with the passage of the McMahon Act imposing legal barriers to atomic cooperation with foreign governments. But monopolistic sentiment was not confined to Congress. Most officials within the Truman administration favored preventing the spread of atomic weapons outside the control of the United States. In 1945-46, the only individuals of governmental consequence who advocated improved relations with the British were Under Secretary of State Dean Acheson and Chief of Staff of the Army Dwight D. Eisenhower. Under these
conditions, the British were fortunate to retain any atomic connection with the Americans and, as will be seen, did so only because of the agreement to cooperate on the control and allocation of critical raw materials. But even after international events and continued raw material shortages convinced the Americans to improve overall atomic energy relations, implementing that decision was complicated. Policy-makers struggled within the administration to achieve consensus and maneuvered to shape the new policy.

The government, of course, had no more vital area of concern in these years than the field of atomic energy and this concern required strong Presidential leadership to achieve a well-defined, coherent national policy. In the foreign affairs aspect of atomic energy, at least, Harry S. Truman did not provide that leadership. Ill-informed on the subject, he knew and understood little of the wartime atomic partnership, demonstrated his ignorance and confusion both in private conference with the British and in public, and made only half-hearted attempts to carry through major policy decisions before bowing to congressional pressure. In the absence of vigorous, knowledgeable leadership, then, divisions within the policy-making bureaucracy became sharp. The situation changed when Eisenhower became President. He had a clearer conception of the kind of nuclear policy he wanted, pursued that policy consistently and with great firmness, and dealt with Congress more effectively. Emphasizing maximum reliance on nuclear weapons and improved nuclear cooperation with allies, he benefited from a more stable international situation than Truman had had to confront. He also enjoyed a closer personal
relationship with Churchill than Truman had developed with Clement Attlee. ³

One government agency whose officials realized early on that atomic cooperation with the British might be a valuable tool in protecting American national interests was the State Department. In 1945-46, it was dominated by Secretary of State James F. Byrnes and other advocates of international control. But after that idea faltered and George C. Marshall became Secretary of State in January 1947 (bringing in as his deputy a few months later Robert A. Lovett), the Department took a more active role in reconciling the United States and Britain. It did so in order to guarantee future supplies of raw materials for atomic weapons and to bring atomic ties more into line with the general fabric of Anglo-American relations. George F. Kennan, first head of the State Department's Policy Planning Staff, and Acheson, when he returned as Secretary of State in January 1949, were vocal advocates of the "general fabric" line of reasoning. They inferred in their arguments that other agencies (like the Department of Defense, for example) were unable to see the forest of improved Anglo-American relations for the trees of particularistic concerns. Even Joint Chiefs of Staff insistence on location of atomic energy facilities with due regard for sound strategic concepts—in other words in North America, not the British Isles—should yield to their diplomacy, they believed.

If the State Department believed the Defense Department, Joint Chiefs of Staff, and Atomic Energy Commission unable to see the forest for the trees, officials in these other agencies believed the
reverse—that the State Department in its desire for improved overall Anglo-American relations was too willing to play down legitimate strategic, security, and legal concerns. In effect, they suspected that some State Department officials could not see the trees for the forest. From the end of the Second World War, for example, the War Department and Joint Chiefs were concerned with keeping the secret of the atomic bomb exclusively in American hands and protecting atomic energy installations and raw material stockpiles in accordance with good strategic guidelines. Secretary of War Robert P. Patterson and the Joint Chiefs opposed any exchange of information with the British which would permit the building of large-scale plants in Britain. They also opposed storing raw materials and atomic bombs in Britain. This position was later softened somewhat out of concern to insure British cooperation for the control and allocation of raw materials and preservation of air base rights for American strategic bombers in Britain. But even after the detonation of the Soviet atomic bomb in 1949, Defense Department officials insisted that strategic location of installations, raw materials, and atomic bombs was of the utmost importance. Likewise, top American civilian Defense officials from Patterson to James Forrestal to Louis Johnson to Marshall to Robert Lovett to Charles Wilson consistently emphasized the absolute necessity of maintaining high security standards. Information exchanges and cooperation with the British on atomic energy matters were several times prevented or delayed due to British spy scandals and nagging doubts about British security. The June 1955 agreement would not have been signed had not the British made meaningful improvements.
Coming into existence only on January 1947, the Atomic Energy Commission (AEC) nevertheless exerted a very strong influence on American atomic energy policy, though with less consistency of position than the military. The AEC was composed of a chairman and four other commissioners and was charged with controlling all aspects of American atomic energy policy—most notably, in the context of this work, building bombs for the atomic stockpile. Because of this mission, first Chairman David E. Lilienthal (1947-50) and his immediate successor Gordon E. Dean (1950-53) focused on obtaining an adequate supply of raw materials with which to construct bombs. For the most part, this objective outweighed others in their considerations. They, and most of the other commissioners, therefore, favored some information exchanges and cooperation with the British in order to win collaboration on raw material control and allocation. However, they too were acutely aware of security considerations and legal restrictions on cooperation imposed by the McMahon Act and insisted upon by the Joint Committee on Atomic Energy (JCAE) and so usually did not go as far as the State Department in advocating collaboration. They were almost always careful to propose amendments to the McMahon Act in order to justify change in policy and almost always adhered to the law and the interpretation insisted upon by the JCAE.

It is interesting to note that Lewis L. Strauss, Chairman of the AEC under Eisenhower from July 1, 1953 until the end of 1958 and supporter of some cooperation with Britain during that period, had adamantly opposed information exchanges and cooperation during his first term as commissioner 1947 to 1950 for strategic, security, and
legal reasons. What caused him to discuss the possibility of Anglo-American collaboration after 1953 was not so much a changed opinion about the importance of strategic location, security standards, and legal restrictions as a change in the circumstances affecting those factors. Soviet stockpiling of nuclear weapons and construction of bombers to carry them reduced the force of arguments against strategic installations, materials, and bombs in Britain, British improvements in security standards made exchanges of information less of a danger, and the Eisenhower administration's campaign to eliminate legal obstacles to atomic cooperation persuaded Congress to pass the 1954 amendment to the McMahon Act. Changing conditions and international developments, therefore, were as important in American policy-making decisions as institutional concerns and the attitudes of individuals.

British policy-makers, in contrast to their American counterparts, focused on a cohesive program of objectives and pursued that program determinedly. Concerned about the cost and difficulty of developing atomic energy, they wanted full collaboration with the United States and a complete exchange of information to give them the ability not only to construct an atomic bomb but to use atomic energy for commercial and industrial purposes. Cognizant of Britain's weakened postwar condition and mindful of the Soviet danger, they wanted strategic cooperation and retention of the right of consultation on American war plans for the use of the atomic bomb. But even after they were denied active collaboration, they nevertheless pressed on with their atomic bomb project. Britain, they believed, was still a Great Power and to remain in the first rank militarily and also
industrially had to have the bomb and develop the potentialities of atomic energy. A concerted effort to make the bomb, moreover, would put pressure on the Americans to increase cooperation and in the end reinstate something similar to, if not better than, the wartime cooperation. 4

Whether atomic energy relations would have been better had Churchill and the Conservatives remained in power in Britain after the war is difficult to assess. Some Americans did fear that the left wing of the Labor party would compel the government to move closer to the Soviets and thereby heighten the security problem, but the monopolistic instinct in the United States was very strong in 1945 and 1946 and the Congress would probably have moved to restrict the flow of atomic energy information anyway. British economic and military weakness made Britain appear in the long-term an ally of uncertain value and in the short-term a strategic burden. Despite the fact that in practice Prime Minister Clement Attlee and Ernest Bevin, his Foreign Secretary, maintained a pro-American policy and took a relatively tough line with the Soviets, many American officials felt uncomfortable about cooperating with the British in the late 1940's and early 1950's in the field of atomic energy. 5

* * *

At a meeting of the Combined Policy Committee (CPC) in Washington on July 4, 1945, the British and Americans—in accordance with the Quebec Agreement—agreed jointly to use the atomic bomb against Japan. There was no debate. In fact, the British representatives were far more concerned with allocation of uranium supplies
by the Combined Development Trust (CDT). Although while the war lasted all supplies had to be given to the United States for production of weapons for possible use against still defiant Japan, the British worried that should the war end abruptly, they would be left without any stocks with which to start up an atomic energy program in the British Isles. Their only satisfaction was that according to the Agreement and Declaration of Trust of June 13, 1944, any excess uranium not required for American weapons manufacture would be held by the CDT for allocation by the CPC at a later date.

Wartime collaboration between the United States and Britain in all fields, including development of the atomic bomb, had been very close so that the British in the last days of the war looked forward to continuation of the Anglo-American alliance after Japan was subdued. Clement Attlee, leader of the British Labor party and new Prime Minister from August 1, 1945, admitted as much in a telegram to President Harry S. Truman on August 8. The recent detonation of an atomic device over Hiroshima, he said, mandated a "reevaluation of policies and a readjustment of international relations." He wanted to join with Truman in a "joint declaration of our intentions to utilise the existence of this great power not for our own ends, but as trustees for humanity in the interests of all peoples in order to promote peace and justice in the world."

Fine words, but postwar realities made many American policymakers nervous about giving up control of the atomic bomb, or even sharing the "secret" with other nations, including Britain. Still others like Secretary of War Henry Stimson looked into the future and
predicted an atomic arms race between the Soviet Union and United States if the United States failed to invite the Soviets into an atomic partnership. The danger of such an arms race was even greater if the Soviets perceived that the British and Americans were combining against them. The issue of the atomic bomb, Stimson wrote to the President on September 11, was the key to future Soviet-American relations. He wanted a direct proposal put to the Soviets for an agreement between the Soviets, Americans, and British to control atomic energy and make use of it for industrial and humanitarian purposes. He proposed that the United States, as a gesture of good faith, stop manufacturing bombs, halt further weapons development, and impound all bombs already manufactured. But he did not put forward a plan for international control of atomic energy. Since only Britain, the United States, and the Soviet Union had demonstrated their potential power and responsibility in the war, the Soviets would scoff at giving smaller, less important countries a role in controlling atomic energy. Under Secretary of State Dean Acheson and Robert P. Patterson, Under Secretary of War and (on September 27, 1945) Stimson's successor, were in substantial agreement.8

Eager to make a statement about the atomic bomb and American atomic energy policy, President Truman gave a speech on the subject before Congress on October 3, 1945—just two weeks after soliciting opinions from administration officials at a Cabinet meeting. His address was an attempt to walk a fine line between some form of international control (a popular idea with the public) and safeguarding the secret of the bomb for the United States. What he was proposing, he
said, was initial discussions with the wartime allies, Britain and Canada, prior to talks with other nations (read: the Soviet Union) which would then take place "in an effort to effect agreement on the conditions under which cooperation might replace rivalry in the field of atomic energy." But he also stated his intention not to disclose information relating to the manufacturing process leading to the production of the atomic bomb itself. In other words, the United States would support international control so long as a system could be devised to prevent other nations from building the bomb.  

Truman's speech alarmed officials on both sides of the Atlantic. Within his own administration, Secretary of State Byrnes and General Leslie R. Groves, head of the Manhattan Engineering District (the organization in control of the atomic bomb project), regretted that the President had mentioned international control of atomic energy before the postwar international situation had become clearer and peace treaties had been drawn up and signed. Secretary of the Navy James F. Forrestal made his feelings known more bluntly. He opposed the idea of turning over the atomic bomb to "a piece of paper"—that is, an international control agreement with the Soviets—and feared allowing even the British a say in the future of the bomb. To avoid their meddling, he wanted to disband the CPC. The predominant American military sentiment, reflected by Forrestal, was that the United States should take steps to guarantee for as long as possible American atomic superiority. Estimating that the United States held a five year technological lead in the nuclear field, the Joint Strategic Survey Committee advised that the United States government take steps
to control all uranium sources, accelerate to the greatest extent possible atomic research and development, set in place security standards and follow a policy to achieve the highest possible degree of secrecy, and accumulate rapidly a large enough stockpile of weapons to implement if necessary strategic war plans. The importance of maintaining close contacts with Britain and Canada was not mentioned. 11

Truman's speech also had the effect of stirring up the British Parliament and press to demand Attlee make a statement on British atomic energy policy. The press in particular scored what it considered too great an emphasis by the American government on secrecy and not enough on trusting allies. Having already set up a research establishment in the United Kingdom and proceeded with plans for an atomic pile for research and development purposes, Attlee proposed a conference with himself, Truman, and Canadian Prime Minister Mackenzie King to discuss a common plan for atomic energy development. The United States soon agreed and scheduled the conference to begin in Washington on November 10. 12

American policy-makers went to work belatedly drawing up the American position, but it was the War Department not the State Department which took the lead. After Byrnes showed little enthusiasm for Patterson's suggestion that the State Department, with War Department assistance, conduct a thorough examination of the international phases of atomic energy in preparation for the conference, Patterson met with Vannevar Bush, Director of the Office of Scientific Research and Development, to ask for his ideas. He then ordered Lieutenant R.
Gordon Arneson, General Groves' atomic energy advisor, to undertake a study of the current state of Anglo-American atomic relations. Arneson was to review the Quebec Agreement, Agreement and Declaration of Trust (neither Patterson nor Bush knew about the Hyde Park Memorandum), 13 Stimson's proposal of September 11, and his, Patterson's, memorandum of September 26 based on Bush's memorandum of September 25 and produce a tentative set of proposals for revision of past agreements with the British and Canadians. He was also ordered to draw up a negotiating approach to the Soviets concerning international control and a plan for the establishment of a United Nations Organization (UNO) for the control of atomic energy. 14

Meanwhile on November 5, Bush drew up his own recommendations. Since the war was now over, he wrote, the Quebec Agreement and its provisions were no longer operative. They had to be renegotiated and replaced, preferably by a permanent agreement ratified by the Senate which would be compatible with a future agreement on international control of atomic energy by the United Nations. To do this, the Anglo-American treaty must deal not only with cooperation on control of raw materials—a continuation of the CPC and CDT arrangement—but must insure that clauses dealing with information exchanges and/or political clauses were temporary in nature and subject to revision or cancellation once a UNO was established. Specifically, he wanted no exchanges of information necessary for the manufacture of atomic bombs and cancellation of two potentially embarrassing (for both countries) clauses from the Quebec Agreement—the clause limiting British activity in commercial and industrial aspects of atomic energy
and the clause giving Britain veto power over American use of the atomic bomb. With respect to negotiating with the Soviet Union and drawing up an international control agreement, he advised a step by step approach providing for the establishment of a UNO to disseminate all fundamental scientific information, including information on atomic fission. Free travel by scientists would then be agreed to, followed by establishment of an internationally constituted inspection system, still without a right of control. Only then, after many years of preparation, would nations in possession of raw materials turn over their stocks for use in atomic power plants. The United States would do the same with its raw materials and its stock of atomic bombs but would at no time provide information on the manufacture of atomic weapons to any other nation.\textsuperscript{15}

The final American position, solidified without State Department participation, adopted much of Bush's plan but with one interesting addition. In talks with the British, the Americans would still insist that the effective cooperation of the Soviets be proven in practice before the United States agreed to give authority over atomic energy to a UNO. But before cancelling the Quebec Agreement clause limiting British activity in the commercial and industrial aspects of atomic energy the United States would ask for control of all uranium and thorium in the British Commonwealth.\textsuperscript{16}

The British had an entirely different conception of what an international control agreement should look like and what relations with the United States should be. Some ministers favored sharing with the Soviets not only fundamental scientific knowledge but the practical
know-how of manufacturing the bomb as well—this even though Britain did not then have the information itself to give. Wisely, Attlee argued before the full Cabinet that cooperation with the Soviet Union ought to be limited to scientific knowledge only, and he carried the day. He also won out on Anglo-American relations. He came to the conference intending to maintain as close cooperation with the United States as possible and to begin production of a British atomic bomb with American help at an early date. The Quebec Agreement, he believed, had established a good framework in the CPC for policy coordination and information exchange and the CDT too should remain intact to continue joint control of raw materials. And yet he also realized that Britain's bargaining position was not a strong one. The legal, and moral, argument he would try to employ to persuade the Americans to establish a full atomic partnership depended upon the promises given by President Roosevelt to Prime Minister Churchill and encapsuled in the Hyde Park Memorandum of September 19, 1944. The problem, as analyzed in a British Chiefs of Staff memorandum, was that nothing in the Hyde Park Memorandum indicated it had been intended to supercede the far more detailed Quebec Agreement. Indeed, both agreements had been concluded by the President and Prime Minister without authorization of Congress and/or Parliament and so could more easily be repudiated as wartime agreements no longer in force in peacetime. Even more distressing, neither Truman nor Byrnes had shown a readiness to share American atomic secrets with Britain. Nevertheless, Attlee was confident that the Americans would prove reasonable and approached the conference in a hopeful frame of mind.17
If the British came expecting fulfillment of Roosevelt's promises and united in their determination to achieve full partnership, the Americans entered the conference in a state of disarray. President Truman, as the British later realized, did not understand the essence of the wartime agreements and was (like his advisors) ignorant of the Hyde Park Memorandum. The American position as interpreted by Patterson, Bush, and Groves, in addition, had only been put together in its final form on November 10. That same day, Attlee and King arrived and the next day the first meetings took place. It is remarkable that although Patterson, Bush, Groves, and their advisors had done the detailed preparation for the conference, they were excluded from these early discussions and only came into the conference in a meaningful way on November 14.

At the direction of President Truman, no verbatim accounts were kept of the first meetings held on November 11 on the Presidential yacht Sequoia as it cruised the Potomac River. Present at the initial meeting were the three heads of government only, but they were joined for the second meeting by Byrnes, President Truman's Chief of Staff Admiral William D. Leahy, Sir John Anderson, chairman of the United Kingdom Advisory Committee on Atomic Energy, British Ambassador to the United States Lord Edward Halifax, Canadian Ambassador to the United States Lester B. Pearson, and the Canadian Prime Minister's secretary Leslie Rowan. The primary topic of conversation was international control. Although agreement in principle to American proposals for free exchange of scientific information and eventual international control came quickly, the British opposed the kind of careful approach
Bush had proposed, especially the requirement for physical inspection of atomic energy installations. Their feeling was that the Soviets would never agree to on-site inspection and that therefore insistence on the point would doom the international control idea. In any event, consensus was only hammered out when Bush joined the discussions late Tuesday, November 13, and insisted on the American point of view. Formal agreement came late the next night.  

Finding common ground for bilateral relations proved just as difficult. Discussions on this latter question were hampered by a fundamental misunderstanding concerning what each side wanted. In a series of meetings on November 14 and 15 attended by Canadian representatives, Americans Patterson, Groves, and Arneson, and Britons Anderson, Field Marshal Sir Henry Wilson, British military representative, and Roger Makins, British Embassy Counsellor, the participants set forth their views and attempted to revise the Quebec Agreement in accordance with the wishes of their superiors. Anderson, a Conservative who had been in charge of the British atomic energy program in 1941 and had served as Lord President of the Council in Churchill's wartime government, knew more about the general effort to produce a bomb than any other of Attlee's advisors and spoke for the British. The British government, he declared, wanted full interchange of personnel and full cooperation in any new agreement. It also desired revision of the Quebec Agreement clause limiting British activity in the commercial and industrial aspects of atomic energy, but since the Quebec Agreement had placed that decision in the President's hands, the British would abide by whatever decision the Americans came to. In these discussions, he did
not specify that full cooperation meant giving Britain access to weapons information. Without agreeing or disagreeing with Anderson's proposal for full cooperation, Groves suggested that as a quid pro quo the British would have to bring all uranium and thorium in the British Commonwealth under control of the CDT to be allocated on the basis of demonstrated need, but he too failed to make himself completely understood. Since the United States alone had an intact infrastructure for the manufacture of bombs, it alone should make use of the uranium and thorium.  

Ultimately, no agreement could be reached and Anderson and Groves decided to draw up a Memorandum of Intention to set forth basic policies for a new Anglo-American atomic agreement to be written later by the CPC. After considerable wrangling over wording, the document was signed on November 16. Keeping intact the CPC and CDT, it ignored the question of industrial and commercial rights and softened the clauses on consent for use of the atomic bomb and disclosure of information to third parties to read consultation. On the question of raw material allocation and information exchange it was equally weak. Allocation would be on the basis of need, in the common interest, and for scientific research, military and humanitarian purposes, but the CPC would decide later in "light of then existing conditions and on a fair and equitable basis" who needed what. Although the words "full and effective cooperation" had been incorporated into the document at Anderson's insistence, they applied only to the field of basic scientific research and did not, the Americans made sure, change the fundamental meaning of the agreement.
Cooperation in development, design, construction, and operation of plants was recognized as desirable in principle but was limited, at Groves' insistence, to "ad hoc arrangements as may be approved from time to time by the CPC as mutually advantageous." The United States, in effect, could refuse to help the British build an atomic bomb.21

At the end of the conference, the three heads of government issued a public statement expressing a desire for full and effective cooperation without realizing the confusion of interpretation in their own minds and the minds of their advisors. The Americans came away believing they had escaped without commitment and had bought time to play out their plan for international control. They would not, they thought, have to give the British atomic energy information in the near future. The British believed they had come away with a promise to establish real cooperation and to draw up a new partnership. They did not comprehend just how wrong they were for many months.

On November 22, 1945 in the House of Commons, Attlee spoke confidently of what had been accomplished at the Washington conference and the possibilities for effective international control. The United States, Canada, and Britain, he said, had had full and frank discussions and were working on plans for future cooperation in the field of atomic energy. In point of fact, the CPC did not establish a subcommittee to draft an agreement until December 4 and Attlee overestimated greatly the speed with which the Americans would move. The international control problem had to be resolved first. Second, the Congress had begun to assert itself on a wide variety of issues, including atomic energy. Senators Tom Connally, Democrat of Texas and
Chairman of the Foreign Relations Committee, and Arthur Vandenberg, ranking Republican on the Committee, told the President at the press conference/signing ceremony on November 15 that they should have been consulted before the conference. They suspected that the administration intended far too much cooperation with the British. With regard to international control of atomic energy, Connally, Vandenberg, Brien McMahon (D., Connecticut) and others on the newly created Special Senate Committee on Atomic Energy subsequently demanded that the administration develop an effective system of security through inspection and control before giving out classified information even to trusted allies. They knew almost nothing about Anglo-American wartime atomic cooperation and clearly intended the ban to include exchanges of information with the British. Late in 1945, they began work on legislation to restrict severely if not forbid entirely such exchanges.  

Congressional fears about Anglo-American atomic cooperation were exaggerated. The administration had no intention of giving away American atomic secrets to the British—or for that matter to anyone else. Administration policy discussions leading up to the mid-November conference in Washington and the American position at the conference itself, moreover, demonstrated just how determined American policy-makers were to prevent the acquisition by other powers of the "secret" of the atomic bomb. But the British, by interpreting American words and smiles in the most favorable light, convinced themselves the administration did intend to cooperate in the field of atomic energy and maintained this belief into the new year. A rude awakening
awaited them.


2 In Harry S. Truman, Memoirs: Years of Trial and Hope, Vol. II (Garden City, New York: Doubleday, 1956), p. 301, Truman says he was always "uncompromisingly opposed to sharing or yielding atomic military secrets to any other government." But as the documentation demonstrates, this was simply not the case. Truman left atomic energy matters to his advisors and went along with them when they recommended greater cooperation with the British.

3 Part of the reason Eisenhower favored closer atomic energy ties with the British and took an active interest in negotiations with them was that his New Look defense strategy emphasized greater reliance on nuclear deterrence and coordination of war plans and strategy with key allies.


6 Minutes of Meeting of Combined Policy Committee (CPC), Washington, July 4, 1945, SCI Files, FRUS, 1945, 2:12-14.

7 Attlee to Truman, London, August 8, 1945, S/AE Files, FRUS, 1945, 2:36-37.

8 Memorandum by Stimson to Truman, Washington, September 11, 1945; Memorandum by Acheson to Truman, Washington, September 25, 1945; Memorandum by Patterson to Truman, Washington, September 26, 1945, S/AE Files, FRUS, 1945, 2:41-45, 48-55.

Minutes of Meeting of Secretaries of State, War, and Navy, October 10, 1945, 740.00119 EW/10-1045, FRUS, 1945, 2:55-57.

JCS 1477/1, October 30, 1945, CCS 471.6 (8-15-45) sec. 1, Modern Military Branch, National Archives.


Public Papers of Presidents, Truman, 1945 p. 453. Nor did Truman. At his news conference of October 31, 1945, he stated that he did not believe Roosevelt and Churchill had reached a secret agreement on the peacetime uses of the atomic bomb.

Memorandum by Arneson to Patterson, Washington, April 17, 1946, S/AE Files, FRUS, 1945, 2:63-69.


Memorandum by Arneson to Patterson, Washington, April 17, 1946, S/AE Files, FRUS, 1945, 2:63-69.


Leslie R. Groves, Now It Can Be Told (New York: Harper & Row, 1962), pp. 403-405. Delegated to help draw up the Memorandum of Intention, Groves informed Patterson that he had been excluded from the early meetings. He thought the State Department had wanted it that way. Patterson was startled, as was Byrnes when told, but Groves managed as best he could from past knowledge.


Memorandum by Arneson to Patterson, Washington, April 17, 1946; Memorandum by Groves and Anderson to Patterson, Washington, November 16, 1945, S/AE Files, FRUS, 1945, 2:63-69, 75-76.
The frustration of Vandenberg and other Senators was all the more intense because of a feeling of having been shunted aside in the early part of World War Two by President Roosevelt.
III. PROTECTING THE ATOMIC MONOPOLY

"I can see nothing in the Washington declaration (of November 15, 1945), or in the (U.N.) assembly resolution, which requires us to dissolve our partnership, either in the exchange of information or in the control of raw materials, until it can be merged in a wider partnership; I should be sorry to think that you did not agree with this view."

--Attlee to Truman, June 7, 1946

In January 1946, the British requested permission for a scientific team to attend the upcoming atomic bomb trials at Bikini Atoll scheduled for July. The United States agreed. British experts, the JCS said, had special knowledge which could help in planning and execution of the tests and from a military standpoint, their participation was highly desirable. The British were encouraged. By permitting them many times the number of military and civilian observers as from any other member nation of the new United Nations Atomic Energy Commission, the United States was acknowledging the special relationship which existed between the United States and Britain.¹

The British also hoped for a favorable American response to the report of the subcommittee of the CPC which had been established on December 4, 1945 to draw up a comprehensive proposal for a new atomic energy agreement between the United States, Britain, and Canada. And yet when the CPC met in Washington on February 15, 1946 to consider
the plan, the Americans hesitated. Since the proposed agreement, Secretary of State Byrnes told Lord Halifax, would have to be registered with the Secretariat of the United Nations (U.N.) in accordance with U.N. Article 102, the administration would have to consider the matter carefully. With public opinion so strongly supporting international control of atomic energy, the United States might not want to let the world know it was making new bilateral atomic arrangements with the British.\(^2\)

In reality what had happened was that General Groves, even while serving on the subcommittee with Makins and Pearson, had opposed any proposal which would tighten Anglo-American atomic relations. On February 13, therefore, he wrote a memorandum to Byrnes charging that the subcommittee plan called for a relationship tantamount to a military alliance and complained that the United States would end up bearing almost the entire financial and developmental burden—just as it did during the war—while Britain would be free to develop atomic energy for commercial and industrial purposes, could veto American use of the atomic bomb, and undeservedly, in his opinion, enjoy the full benefits of the combined effort, including benefits arising from the wartime program. The subcommittee plan, he advised, was flawed in two other ways. It ran counter to the American proposal in the U.N. for international control (and thus would cause a stir if Congress and/or the public found out about it), and permitted the British to build large-scale plutonium producing plants in Britain. (On February 15, 1946, the British informed the Americans they did in fact intend to build such a plant in Britain). Plants located in North America,
he insisted, made better strategic sense. Convinced that Groves' objections to the subcommittee plan had substance, Byrnes then gave Halifax the bad news. 3

Groves was correct that a new Anglo-American atomic agreement would have been inconsistent with international control of atomic energy. He was also correct that the subcommittee proposal, as written, would have left the British free to develop atomic energy for commercial and industrial purposes while still enjoying the full benefits of cooperation with the United States in the military field. But he was inaccurate in his other objections. Contrary to the assertions in his memorandum, the British would have contributed a fair share of the financial and developmental cost of the project, would have had only a right of consultation, not veto power, on the use of the bomb and disclosure of information to third parties, and would have had to commit all raw materials (considerable deposits of uranium and thorium from British Commonwealth sources) to the CDT for allocation by the CPC. Half the members of the CPC, in addition, were Americans and since the Canadian representative usually backed the American point of view, the United States would probably have had little trouble guaranteeing adequate supplies for the American program. Regardless of the points in the subcommittee report, however, the British position at this time contained a good measure of flexibility and rationality. The British were fully aware of the potential cost of developing atomic energy and would have been quite willing to cooperate with the Americans in all fields of atomic energy, including commercial and industrial activities. Militarily, they were under no illusions. On
January 1, 1946, the British Chiefs of Staff sent a report to Attlee advising that Britain needed atomic bombs as soon as possible to deter attack by a potential aggressor but also informed him it would take five years before an independent British program could produce the necessary fissionable material to make bombs. Although the Chiefs wanted two atomic piles for greater production of bombs and to keep a potential aggressor in the dark about how many bombs Britain could produce, the government decided that the country could initially afford only one. Even so, there was some debate as to where to put the plant. Sir James Chadwick, scientific advisor to the British members of the CPC, and Professor John Cockcroft, director of the British atomic research establishment, favored location at Chalk River in Canada. It was a prepared site with ample water and would give political advantages vis-a-vis the United States. The political advantages were that the United States would be far more likely to agree to an atomic partnership if atomic installations and stockpiles of raw material were located in North America. Most British policy-makers, it must be said, wanted location of at least one atomic pile in Britain. National pride was involved, but there was also the reason that location in Canada would mean sharing the cost and therefore the control of the pile and the weapons material it produced with the Canadians. 4

Despite British readiness to attempt to satisfy American concerns, serious negotiations did not occur concerning the subcommittee plan. Instead, the Americans procrastinated and in the process ruffled British feelings. Even more alarming from the British point
of view, the Truman administration, in order to win over key Congress­
men to the idea of civilian control of atomic energy as opposed to
military control, appeared willing to give in to the atomic monopolists
in Congress and agree to clauses in the atomic energy bill to restrict
information exchanges and cooperation with foreign governments. Attlee
told American Ambassador to Britain Averell W. Harriman that if the
bill became law, Britain would build atomic plants for military as
well as commercial/industrial production of atomic energy. Although
a warning, this was another clear indication of flexibility in the
British position. Should the United States agree to an Anglo-American
atomic partnership, Attlee was implying, the British might be willing
to forego manufacture of atomic bombs in the British Isles.\(^5\)

Having expected a quick decision in favor of the subcommittee
proposal, the British became quite cross when it did not occur. On
March 5, 1946, Acheson repeated to Halifax a statement of the official
American position. It was politically impossible, he said, to agree
to a secret exchange because U.N. Article 102 required all atomic
energy accords be submitted to the U.N. Atomic Energy Commission for
review. The United States, therefore, had to wait to see if progress
could be made on international control. Facilely, the British members
of the CPC drew up a clever response to be presented at the next CPC
meeting. Conceding that Article 102 did prevent a \textit{new} agreement, they
asserted that it did not legally bar fulfillment of \textit{old} ones. They,
therefore, proposed adoption of the subcommittee proposal based on
cooperation under the wartime Quebec Agreement. Some revisions would
have to be made in the old provisions of course to insure effective
collaboration—and these revisions were point for point the same as the subcommittee proposal—but this could be considered temporary and subject to permanent revision when the U.N. Atomic Energy Commission made its recommendations on international control.6

The British also intended to raise the question of raw material allocation at the next CPC meeting. They wanted control of a portion of CDT supplies received in the trust from V-J day (August 14, 1945) through February 28, 1946 and half the supplies accumulated from March 1 through the end of 1946. The American members of the CPC had a different idea. They preferred allocation based on need and reiterated that position in preparation for a meeting of the CPC insisted upon by the British and set to take place at the State Department on April 15. At that meeting, Halifax protested the American allocation formula and said it would leave the British program with no supplies through February 28 even though Britain had paid 50 percent of the cost. General Groves responded bluntly. According to the Quebec Agreement, he said, allocations were made on the basis of need, not payment. Since the British had no plants in actual operation, they should get no supplies. Acceptance of the British proposal, he asserted, would force partial shutdown of American plants. After further debate, it was agreed that no decision could be taken and the matter was delegated to a subcommittee composed of Acheson, Bush, Groves, Makins, and Chadwick for further study. Discussions then turned to the British plan for cooperation. Halifax, following Attlee's instructions to force the Americans' hand, made a detailed request for information on construction and operation of atomic energy
plants. Although fearing a negative reply, he was nevertheless shocked by the firmness of the American response, backed by the Canadians. The United States, the Americans said, rejected out of hand the British proposal because it created difficulties with U.N. Article 102, changed the basis of cooperation as set forth in the Quebec Agreement, and preempted atomic energy discussions in the U.N. about international control. Quite vigorously, the British countered that the November 15, 1945 declaration by Truman, Attlee, and King calling for "full and effective cooperation" was being ignored, but the Americans would not listen. The meeting ended in a complete impasse.  

Although the British realized that the Americans were quite serious about international control, they also believed that their powerful ally wanted to continue to monopolize the benefits, militarily and otherwise, of atomic energy. Attlee was outraged. He sent Truman a telegram the next day and had Halifax question Byrnes as to the deeper reasons for the American refusal. The answer, first to Halifax and then to Attlee, defined the difference in interpretation of the Memorandum of Intention of November 15, 1945, but did not set forth substantive reservations like those Groves had listed for Byrnes in mid-February. The United States, Byrnes said, had only agreed to full and effective cooperation in basic research, not development, design, construction, and operation of plants. The British would get no industrial information on how to build a bomb or plants. Truman wrote Attlee that sentiment in favor of international control was so strong that the American public would not support the construction of another
atomic plant in the United States, let alone an American-aided one in Britain. 8

On the basis of the printed language of the Quebec Agreement and Memorandum of Intention, the American position was correct. The United States had no obligation to hand over its most sensitive atomic energy information to the British. But there was also the question of the spirit of the Quebec Agreement, supported by the Hyde Park Memorandum (the American copy of which still could not be located). The British could make the case that they had submerged their program into the American with the understanding that information and assistance would be forthcoming after the war. Certainly this was Roosevelt's intention. The problem is that he was alone in this sentiment and that the Hyde Park Memorandum was very general in nature and an executive statement of future intention, not a treaty nor even an agreement comparable to the Quebec Agreement. Well aware of the American constitutional framework, the British, as has been shown, unquestionably realized that further agreement would be needed to give force to Roosevelt's commitment. No doubt, the British did submerge their program expecting postwar American assistance, but it is clear that with the sole and admittedly important exception of Roosevelt, the Americans never intended to establish full and effective cooperation in all fields of atomic energy.

They did, however, intend to continue cooperation for the control of raw materials and met three times with the British in April to discuss allocation. Stung by the American refusal to consider an atomic partnership, the British at first took a very tough line.
Since they had paid for half the raw materials going into the CDT from V-J day, they said, they wanted half for the same time period. Bargaining for the Americans, Groves staked out an equally stubborn position. He refused to consider any proposal which did not adopt as its basis the principle of need and complained in two April 29, 1946 memoranda to Acheson and Bush that acceptance of a compromise proposed by Makins (giving the United States all stocks to March 31, 1946 and dividing the stocks equally from April 1 to December 31, 1946) would reduce production in American plants. British contribution to the overall program, he wrote, was very small, the supply of available raw material was not sufficient to justify building additional plants by a nation, Britain, "destined to be a partner of ours in any major military operation," and the United States, shouldering the major burden of the joint effort, should take advantage of its present production capacity and build up a large strategic reserve of bombs in preparation for a possible future war with the Soviets. He thought the real reason the British wanted to begin building up a stockpile of raw materials was to take advantage of the commercial and industrial uses of atomic energy—an inefficient, uneconomical division of resources and effort—but location of commercial plants and/or raw material stockpiles in Britain was in itself dangerous because such installations could be easily destroyed or neutralized in a war. The numbers, he insisted, told the tale. Proven high grade uranium reserves in the Belgian Congo, the main source, were estimated at 7,700 tons. The British wanted half the 2,700 tons coming into the CDT from April 1 through December 31 and projected their needs at 5,400 tons for the
next three years. And yet the United States needed 400 more tons in 1946 than the British were offering and 230 tons a month thereafter. He, therefore, flatly opposed the compromise plan. 9

Acheson, Patterson, and Bush did not. They understood that the British were so angry about the American rejection of the proposed atomic partnership that they would end cooperation on the control of raw materials and all Anglo-American atomic relations rather than accept less than Makins' compromise plan. After all, the British were paying half the cost and the United States could not afford to lose British cooperation in securing uranium and thorium from British Commonwealth countries. They, therefore, overruled Groves and agreed to the formula giving each country 1,350 tons of Belgian Congo uranium for the period April 1 through December 31, 1946. Allocation for future years was left unresolved. 10

Meanwhile Attlee, even as his government pushed through Parliament major pieces of legislation to nationalize key British industries (and in the process alarm an already uneasy American Congress about the prospects of virulent socialism in Britain), sent a second message to Truman on June 7 and proudly put forward the British case. Britain, he asserted, had made very important contributions to the common war effort. She had cooperated in the development of atomic energy, had been responsible for the development of radar and jet propulsion, and had freely given the technology for these devices to the United States. She had sacrificed as well her own independent atomic energy program for the common good in the belief that the Americans would share information and give assistance later. Their
two countries continued to cooperate in the control of raw materials critical for making atomic bombs. Why not do likewise in the exchange of atomic energy information?  

Even had Truman been swayed by this appeal, it was too late for effective action. He himself had facilitated passage of the atomic energy bill by publicly throwing his support behind Senator McMahon's version. On July 26, 1946, the day after the United States concluded the Bikini Atoll trials to test the effects of atomic bombs underwater and on warships, the final Atomic Energy Act of 1946 providing for civilian control and severe restriction on information exchanges and cooperation with foreign governments passed the full Congress. The President signed it without objection. Anglo-American atomic relations had disintegrated to a single link based on joint control of raw materials, and cooperation even in that area was strained. Simultaneous with the passage of the McMahon Act, the British demanded that the Americans adopt the principle that whomever received raw materials from the CDT after V-J day pay for it. Since the Americans had received all stocks through the end of March, the British said, they should reimburse the British government for what it had already paid. The Americans quietly agreed.  

Margaret Gowing, in Independence and Deterrence: Britain and Atomic Energy 1945-1952, states that she sees it as "extraordinary" that the McMahon Act passed without administration objection and puts it down to ignorance on the part of both Truman and Congress about wartime agreements and cooperation. She cites, for example, later
statements by McMahon in 1949 and 1952 (the second made to Churchill after he again became Prime Minister) that had he had accurate information about wartime cooperation, the McMahon Act would never have been so restrictive. But probably McMahon was just trying diplomatically to smooth the waters during periods of sometimes tense and difficult negotiations with the British. In all likelihood, as Andrew J. Pierre suggests in Nuclear Politics: The British Experience with an Independent Strategic Force 1939-1970, the McMahon Act accurately reflected the predominant sentiment in both the administration and Congress in 1945 and 1946. Aside from Eisenhower, Acheson, and a few other State Department officials, most policy-makers preferred to preserve the American atomic monopoly and the strategic and other benefits exclusive control would bring. They saw no pressing need to cooperate with the British.  

Certainly the majority of Congress, particularly anti-internationalist members of the JCAE like Senators Bourke B. Hickenlooper (R., Iowa) and Edwin C. Johnson (D., Colorado) did not. Isolationist and Anglophobic in their sentiments, these men had opposed the 3.75 billion dollar loan to Britain, emphasized consistently the importance of defending the United States and the Western Hemisphere (rather than projecting American power into Europe), and fought hard for preservation of the atomic monopoly. In their battle, they received significant support from the Unilateralist wing of the Republican party. Unilateralists, although favorable to an active American foreign policy and the furthering of American influence and interests abroad, disliked formal alliances with foreign powers,
pressed for economic self-sufficiency, and argued for strong air and naval forces—all measures designed to reduce or prevent the chance of foreign influence on the formulation of American policy. They, like the anti-internationalists, frowned on revealing atomic information to foreign governments. "If it were possible," Senator Vandenberg, the leader of the Unilateralists wrote in mid-November 1945, "to keep this secret in our possession indefinitely, this would be my first and emphatic choice because we know that America will not use this devastating weapon for aggressive purposes." Vandenberg and most congressional leaders were not seriously concerned that the British, should they develop the bomb, might misuse it but feared instead leaks through the British program to the Soviet Union. It was this fear, that the Soviets would acquire information leading to early construction of the bomb, that prompted the Congress to press for maximum security in the provisions of the McMahon Act. After the Republicans gained substantial majorities in both houses of Congress in the mid-term election of November 5, 1946, anti-atomic cooperation sentiment reached its zenith.

Maximum security restrictions had a negative side. They infringed on the administration's ability to adjust to changing circumstances, even when those circumstances required closer defense ties with important allies. Despite wording in section 10 that empowered the newly created Atomic Energy Commission (AEC) "to control the dissemination of restricted data in such a manner as to assure the common defense and security," and despite the fact that this clause could theoretically be interpreted to permit closer cooperation with
the British if the President decided the common defense and security mandated such cooperation, the administration steered clear of controversy. The obvious intent of the act—and the interpretation insisted upon time and again by Congress—was that no data concerning manufacture or use of atomic weapons, the production of fissionable material, or the use of fissionable material for the production of power be given to foreign governments. This last stipulation prohibited helping the British make use of atomic energy commercially or industrially and particularly embittered them. They were counting on atomic power to fuel economic growth and development. With the JCAE serving as an alert watchdog over atomic energy activities, the administration soon discovered it had little room to maneuver. By letting the offending provisions pass into law uncontested, it had painted itself into a very uncomfortable diplomatic corner.¹⁶


²Minutes of Meeting of CPC at Department of State, February 15, 1946, S/AE Files, FRUS, 1946, 1:1213-1215.


wanted to conciliate the Americans and solidify Anglo-Canadian relations by locating Britain's second pile in Canada as a British Commonwealth pile.


IV. MOVEMENT TOWARD LIMITED COOPERATION

"In the likely event of failure of U.N. atomic energy discussions, the country must reconsider its diplomacy. For example, we shall have to consider the possibilities of combining with other nations in a U.N. without Russia; or a limited alliance with other countries which cooperated closely with us during the war; or a series of movements in the U.N. serving to isolate the Soviet Union and show up its intransigence and its aggressive intention on several points; e.g., subversion of civil liberties in satellite states and indirect aggression against member countries."

--Robert A. Lovett, July 28, 1947

At the end of the war, most formal military contacts between the British and Americans ended. Lower level discussions did take place, but not until Field Marshal Sir Bernard Law Montgomery visited the JCS in late 1946 did coordinated planning revive. After that, due to the increasing danger of conflict with the Soviets, military contacts were extensive and led to discussion of strategic questions. The British and Americans also shook hands economically and politically. In December 1945, a loan agreement for $3.75 billion dollars was signed and a year later, the two governments fused their zones of occupation in Germany. In March 1947, the United States in the Truman Doctrine agreed to take over responsibility from the British for assisting in the defense of Greece and Turkey in the Eastern Mediterranean. In June 1947, the idea for the Marshall Plan was hatched. Mutual interest and a common adversary convinced the British and Americans that they
still needed each other.

If growing East-West tensions, the British reasoned, made necessary improved military, economic, and diplomatic ties, why should it not also require closer cooperation in the field of atomic energy? They had reason to hope the Americans would come around to their way of thinking. George C. Marshall, former wartime Army Chief of Staff and considered by the British an Anglophile, became Secretary of State in January 1947 and brought an attitude sympathetic toward the old wartime alliance. Robert A. Lovett, Marshall's Under Secretary of State (from July 1, 1947) also appeared inclined toward improved contacts with the British. A banker and former Assistant Secretary of War for Aid, Lovett was also valuable for his friendship with Senator Vandenberg, key figure on the JCAE.¹

But there were problems, bureaucratic problems, which boded ill for the chances of rapid improvement in Anglo-American atomic relations. By creating the five man AEC to manage all aspects of the atomic energy program, and by investing the JCAE with statutory authority to serve as a watchdog of that program, the McMahon Act had greatly complicated policy-making on atomic energy matters for the American government. The likelihood of intra-administration disagreements and exploitation of those disagreements by congressmen was significantly increased. Nor were the lines of communication between important government agencies fully open in January 1947. A Military Liaison Committee (MLC) headed by Rear Admiral William S. Parsons, had also been created by the McMahon Act for the purpose of coordinating policy between the War Department and AEC, but already Chairman of the
JCAE Hickenlooper was complaining that the AEC was not talking to and briefing the MLC properly. There was great need for communication between the military and the AEC. Upon taking office, AEC Chairman David E. Lilienthal, former head of the Tennessee Valley Authority, discovered that the American atomic energy program was in a deplorable condition. The United States had a total of only one dozen atomic bombs in its arsenal, most of these not ready for immediate use, and the program was only producing two additional bombs a month. To make matters worse, neither the President nor the JCS had been informed there were not enough bombs in the arsenal to carry out strategic war plans. Not until the end of 1948 did the stockpile reach an adequate level.²

Relations between the War and State Departments, despite Marshall's presence in the latter agency, were also very bad. Contacts were limited to communications between the two Secretaries and between Deputy Under Secretary of State H. Freeman Matthews and Major General James H. Burns. Friends from both departments had to meet secretly to avoid controversy. It was not until Marshall became Secretary of Defense in September 1950 and Lovett Under Secretary of Defense that regular State-Defense Department (JCS) meetings took place.³

The American policy-making bureaucracy, then, was not functioning well with respect to atomic energy matters, but the British did not appear to understand. Instructed to investigate again the possibilities of concluding a new Anglo-American atomic partnership, Roger Makins met in late January 1947 with Lilienthal and the other AEC commissioners. He heard only bad news. The McMahon Act,
Lilienthal advised him, officially ended the wartime arrangements and all provisions for cooperation. In his opinion, a new agreement would have to be worked out for joint control of raw materials and would have to be submitted to Congress for its approval.4

Considering the hostility of the members of the JCAE toward any cooperation on atomic energy matters with foreign governments,5 Makins must have been very much alarmed by Lilienthal's gloomy statement. But prompted by Halifax and Field Marshal (now Lord) Wilson, he tried again. This time he went to Acheson with a comprehensive proposal calling for an exchange of personnel to examine fully each other's information and activities, continuation of the CPC and CDT for joint control of raw materials, and a statement by the United States government to the British government that it intended to "look to closer cooperation as soon as conditions permitted"—that is, propose an amendment to the McMahon Act as soon as congressional opposition died down. More specifically, the British, even while acknowledging that the provisions of the McMahon Act technically prevented exchanges of personnel and/or information, wanted solutions to 12 or 14 critical problems they were having in their atomic energy program. The United States, Makins suggested, could justify such action by reinterpreting the McMahon Act to apply only to information acquired after the passage of the act. Developments and discoveries in atomic energy which occurred before could legally be exchanged. Acheson replied that such a reinterpretation was impossible. Would the United States be willing, Makins asked undaunted, to make a public pronouncement stating that it had no objection to development by Britain of its own atomic energy
program and if possible phrase the announcement in such a way as to
give the British program American blessing? This would be mainly for
foreign consumption, but the British government would want the American
government to confirm the fact that Anglo-American exchanges in the
defense field applied to military applications of atomic energy.
Acheson paused. What in plain words, he inquired, was Makins asking
for? Just what did the "12 or 14 problems" Makins had mentioned refer
to exactly? Makins told him. The British, he said, wanted information
on the whole field of preparing ingredients for the atomic bomb (in
other words, information needed for construction of a large-scale
atomic plant in the British Isles). Having already thrown cold water
on reinterpretation of the McMahon Act, Acheson could only promise to
consult other interested parties within the administration and give
the British government a formal reply.6

Makins and the British were searching for a formula, any
formula, to give them what they wanted. Since they believed the Ameri-
cans under commitment, moral if not legal, to assist their atomic
energy program, they put forward this proposal as another test of the
intention of the United States to fulfill that commitment. Whether
they actually thought the administration would have the political
courage to reinterpret the McMahon Act against the wishes of a deter-
mined Congress is dubious, but from their point of view it made sense
to try. Atomic energy development was very expensive and rapid
progress could not be expected without substantial American help.

Although rejection of most of the British plan was all but
a foregone conclusion, Secretary of State Marshall asked on
February 11, 1947, one week before the Soviets blocked in the U.N. a United States sponsored plan for international control of atomic energy, for a Joint Chiefs of Staff (JCS) study of the strategic implications of locating a large-scale atomic energy plant in Britain. The JCS reply, based on a report by the Joint Strategic Survey Committee (JSSC), was that such location would be "disadvantageous to the security interests of the United States." First, since commercial use of atomic power was years away and far too uneconomical compared to other energy sources, early construction by the British of a large-scale plant would have no immediate impact on Britain's weak industrial base. In fact, commitment of resources and money to build a plant could result in an enormous drain on the British economy. It might be, therefore, that the British request was aimed at acquiring only information (without undertaking actual development of the commercial and industrial aspects of atomic energy) so that the British could keep up with the United States on atomic energy matters and emerge later in a favorable position to exploit for maximum advantage the industrial uses of atomic energy. Second, location of an atomic plant in the British Isles would mean large stockpiles of raw materials in Britain, and stockpiles in Britain worked to the disadvantage of the security interests of both nations. Since the United States and Britain should be concentrating on feeding raw materials into the American program for production of atomic bombs to meet minimum American military requirements, any diversion of raw material into the British program would have serious consequences for this primary objective. Third, giving secret information on atomic energy to the British increased,
to an unacceptably high degree, the danger of leaks to the Soviets. The JSSC had nothing but praise for British military security, but criticized harshly the security records of "certain British scientists on atomic energy matters." Finally, the JSSC study emphasized the strategic danger of locating an atomic energy installation in the British Isles. Since such an installation and its stockpiles of critical raw materials would be within easy bombing range of the European continent or of a modern airborne assault, the plant itself could be quickly destroyed in the event of war and its two year stockpile seized by an enemy. It would be far better, far sounder from a purely strategic viewpoint, to concentrate all atomic energy activities and all raw materials in American plants (located east of the Cascades and west of the Appalachian Mountains for safety's sake) and so facilitate the conversion of usable raw materials into atomic bombs.7

This assessment was definitely too pessimistic for the conditions prevailing in 1947, at least in military/strategic terms. Even though British air defenses were relatively poor, Soviet bombing capability was even weaker. Air power in Soviet military doctrine was seen as tactical—for the support of large advancing armies—and so the Soviets had neglected building a strategic bomber force. They had no aircraft carriers nor long-range bombers and only developed short and medium range bombers after 1948. They certainly did not have the ability to invade Britain and seize plants or stockpiles of raw materials. The real danger was that eventually the Soviets would manufacture atomic weapons and strategic bombers to carry them and have the capability to destroy any European target. Had the JCS, and JSSC,
protested location of plants and raw material stockpiles in Britain on the basis that such Soviet development was possible in the near future and would then pose a serious risk, they would have been on firmer ground. On the issues of diversion of raw materials from the American program and danger of security breaches, however, the criticisms were more legitimate. The British program was in fact incapable of producing bombs—and would be until 1952—and placed perhaps too much emphasis on developing the commercial and industrial uses of atomic energy to the detriment of military applications. (The first atomic plant for power production did not go into operation until 1956 at Calder Hall in Britain). Diversion of large amounts of uranium and thorium stocks into the British Isles would, considering the relative scarcity of those two commodities in 1947, slow down American atomic bomb production. In security matters, too, the JCS and JSSC had cause for concern, though objection to putting American atomic energy secrets into the hands of "certain British scientists" was too ambiguous and inadequate an indictment. Donald C. Maclean, British Embassy official and member of the CPC, and Klaus Fuchs, important British atomic physicist, were both Soviet agents and both would take part in upcoming negotiations between the United States and Britain on atomic energy cooperation. Later, both would defect and turn over top secret information to the Soviets. 8

* * *

When on February 18, 1947, the Soviets blocked the American plan for international control in the U.N., a consensus began to build among American policy-makers that the United States ought to move
closer to the British on atomic energy matters. One important advocate was General Dwight D. Eisenhower, Chief of Staff of the United States Army, who had from the first been critical of the idea of maximum security on atomic energy matters insofar as it interfered with Anglo-American cooperation. He preferred to emphasize the transitory nature of the American atomic monopoly and the long-term need for the United States to cooperate militarily and otherwise with allies and coordinate strategic planning. Eisenhower, therefore, when telling Wilson in early March, just before Truman's decision to extend aid to Greece and Turkey and relieve Britain of strategic responsibility for the Eastern Mediterranean, that the JCS thought location of atomic plants in the British Isles unwise, chose to soften the blow. He emphasized that the Americans feared that Britain, should she build an atomic plant in the British Isles, might be subject in the future to pressure from a major power (the Soviet Union) threatening consequences Britain might not be willing to bear. He did not mention the strategic reservations held by the JCS concerning location of an atomic plant in Britain so as not to offend the British military. He also worked for Anglo-American atomic energy reconciliation within the administration. He told Lilienthal that because of their wartime contributions the British deserved better treatment than they had previously received and said that he did not believe British socialism posed as grave a security threat as some suggested.9

But Eisenhower's view was still not widely accepted, even after talks between the United States, Soviet Union, Britain, and France concerning Germany broke down in Moscow at the end of April
and the Cold War deepened. What really propelled reconsideration of American policy was the raw material situation. The AEC estimated that the United States would need far more uranium than previously calculated and reported that the only way to meet minimum requirements was to secure more of the British share of the output going into the CDT from the Belgian Congo uranium mines. Concerned, the commissioners went to the JCAE. At a meeting on May 5, 1947 in which he described the nation's atomic energy program in some detail, commissioner Carroll L. Wilson revealed information about the British the JCAE had not known. Senator Connally and others were stunned to hear that the British knew the fundamentals of how to make an atomic bomb. Reacting to their surprise, Lilienthal suggested they immediately ask the State Department for a full briefing on the past history of Anglo-American atomic cooperation and learn the facts.10

On May 12, Under Secretary of State Acheson held this very important briefing session and sought to impress upon the minds of the members of the JCAE a favorable view of past Anglo-American atomic cooperation. The wartime relationship had been close, he said, with valuable contributions by British, Canadian, and other scientists in the Manhattan Project. Although the Quebec Agreement provided for full exchange of information only for the field of scientific research and development of atomic energy, the British and Americans had collaborated completely on the control and allocation of critical raw materials and were continuing to collaborate in the CPC and CDT. President Roosevelt, furthermore, had promised full partnership in all aspects of atomic energy in the Hyde Park Memorandum of September 19,
1944 and the desirability of establishing a full partnership was recognized by President Truman after the November 1945 conference. Three obstacles to future cooperation still existed, however. The McMahon Act provisions severely restricting information exchanges, executive responsibility to Congress, and even the international control idea—still formally alive—all made relations with the British very difficult. These conditions had to change before a long-term solution to the raw material problem could be negotiated.\footnote{11}

The JCAE had much to ponder and so did the policy-makers. The raw material problem was real and would grow worse later when decisions were made to accelerate the atomic energy program for more rapid bomb production. Just as alarming if not more so, Soviet atomic energy development was proceeding apace and might produce a bomb sooner than projected. The replacement of Acheson by Lovett on July 1 expedited the reevaluation of atomic energy policy. Both the State Department and AEC had been studying whether under the McMahon Act the administration could use information as a bargaining chip to insure adequate supplies of raw materials from the British. Now Lovett, concerned that the Soviets were stalling in the U.N. discussions on international control until they manufactured their first atomic bomb, approved a State Department Policy Planning Staff (PPS) proposal for a reorientation of American atomic energy policy. The August 21, 1947 proposal was written by George F. Kennan, first head of the PPS. The United States, Kennan advised, should continue negotiating in the U.N. for an international control agreement but should also embark on a public campaign to demonstrate to the world
that Soviet intransigence was responsible for the U.N. impasse and that the United States was in the right. Simultaneously, the administration should open discussions with the British and Canadians about the meaning of the impasse and announce publicly the fact that these discussions were taking place. An absence of meaningful dialogue with the British and Canadians on atomic energy matters was hurting overall relations and might have a detrimental effect on raw materials cooperation in the future. Already the State Department had had to advise the British to expect no progress on their request for information until after the next report of the U.N. Atomic Energy Commission to the U.N. Security Council in September. 

Opposition to Kennan's proposal for a dramatic improvement in Anglo-American cooperation centered around the two groups originally opposed to cooperation—the hard-line atomic monopolists and the international controllers, the former especially well-represented on the JCAE. On August 29, 1947, Hickenlooper wrote Marshall protesting the arrangement with the British for control of raw materials. The British, he declared, were not close to being able to use their growing stockpile to make weapons and the presence of that stockpile in the British Isles was providing a potential target to the Soviets in a possible future war. He was in favor of withholding economic aid unless they agreed to transfer all excess raw materials to North America. The United States, he said, was only trying to stabilize the world and "incidentally pull British chestnuts out of the fire." Economic coercion was a tactic also favored by Bernard Baruch, the American representative on atomic energy to the U.N., but he had
another reason for opposing cooperation with the British. He did not want to chance giving information to the British only to have them turn it over to other countries and thereby make more difficult future effective international control.\textsuperscript{13}

By October 1947, due to AEC complaints that the stocks of uranium available to the United States were grossly insufficient to keep American atomic energy plants operating, almost everyone realized that the United States needed some agreement with the British to increase the American share of raw materials in the CDT. Kennan lobbied for his view within the administration in a PPS memorandum on October 24. In order to "overcome present misunderstandings and increase the amount of uranium ore available to the United States," Kennan wrote, the administration should make a strong effort to explain the magnitude of the problem to Congress, open secret and informal discussions with the British and Canadians concerning the U.N. international control impasse and the question of raw material allocation and information exchange, and once an agreement was concluded with the British and Canadians, announce the fact of that agreement to the public. With regard to the kind of agreement the United States should negotiate, the administration should seek to continue the arrangement for joint control of raw materials but should stipulate that all material not needed by the British and Canadians for "current industrial projects" should go to the United States (including present stocks of raw materials). Since this last point might be hard for the British to accept, the United States should offer concessions. It should recognize the "desirability of the principle
of assisting the United Kingdom and Canadian Governments in the execution of programs of development of atomic energy for peaceful uses," should acknowledge that existing British industrial projects represented a "legitimate claim on raw materials," should recognize as desirable the principle of full and effective cooperation in the field of atomic energy development, design, construction, and operation of plants (such cooperation to be regulated by ad hoc arrangements approved by the CPC as mutually advantageous), and finally should go to Congress in the next legislative session and seek wider authority to exchange information when in the President's opinion information exchanges would "contribute to national security." Meanwhile, the United States, subject to current restrictions, should do its best to answer specific questions the British and Canadians might raise about practical difficulties in their atomic energy programs. The British and Canadians, of course, would keep the United States informed of developments in their programs. 14

Kennan's proposal was designed not only to win for the United States a greater share of available uranium stocks but also to mend the tear in the general fabric of Anglo-American relations, the tear caused by two years of American standoffishness on atomic energy matters. But it was too ambitious a plan for members of the National Military Establishment (created by the National Security Act of 1947) and AEC. At a meeting of the American members of the CPC on November 5, new Secretary of Defense Forrestal narrowed the focus of the discussion. Because the military urgently desired increased allocation of raw materials for the United States in order to step up
bomb production, he would support exchanging information with the
British to achieve that goal. But he would not support any agreement
which permitted location of a large atomic plant in the British Isles.
Edmund A. Gullion, Special Assistant to Under Secretary of State
Lovett for Atomic Energy Matters, tried to change his mind. The JCS,
it was true, had given their opinion in March that location of a large-
scale plant in Britain would be disadvantageous to the security of
the United States, but a greater cause for concern would be further
accumulation of uranium stocks in Britain. Since the British were
adamant about building their plant with or without American help and
wanted the plant predominantly for its industrial potential, and
since the military situation was far better for Britain than during
the war (because the Soviet Red Army, unlike the German Wehrmacht, was
not sitting on the English Channel), why not agree to assist the
British build their plant in exchange for a reduction in the British
share of raw materials and a transfer of most of their stockpile to
the United States? To this suggestion, Lilienthal had objection.
The kind of assistance Gullion was proposing would require new legis­
lation from Congress to modify the McMahon Act—an unlikely possibility
considering the mood of the JCAE—and would result in some loss of
security. He preferred limited information exchanges under the present
law, though if possible the issues of raw material allocation and
information exchange should not be entangled during negotiations with
the British. Vannevar Bush too sanctioned only limited information
exchanges. The United States, he thought, should agree to answer
specific questions only, not give data on the whole field of atomic
energy. Seeing the lack of support for the broader approach, Marshall requested that the various agencies revise their recommendations for negotiations with the British and reconvene at a later date.15

Not only did the State Department have to adjust its proposals to satisfy the concerns of the National Military Establishment and AEC, it also had to worry about the JCAE. On November 16, Lovett and Forrestal met with Senators Vandenberg and Hickenlooper to forestall a move by the JCAE to threaten economic coercion to pressure the British into concessions on atomic energy. When the Senators warned they would advise Congress to put conditions on long-term loans to the British or cut off aid completely should the British prove obstinant or unreasonable in negotiations, Lovett tried to reassure them. The State Department, he declared, could persuade the British to drop their right of consultation on the use of the atomic bomb and agree to ship the bulk of their raw material stockpiles to the United States or Canada without congressional action. Nothing as drastic as economic coercion was needed.16

The possibility of JCAE interference in negotiations with the British alarmed Lovett and he attempted, two days before the American members of the CPC were to meet with Vandenberg and Hickenlooper, to convince other administration officials that he needed more latitude to conduct negotiations. With a freer hand, he said, he might just clinch an agreement with the British before Congress became directly involved. Although Forrestal quickly concurred, Lilienthal, General Counsel for the AEC Herbert S. Marks, and Bush rebuffed him. They wanted the State Department to open discussions,
find out what the British wanted and had to offer, and then consult with the JCAE. Despite Kennan's and Lovett's warnings about unhappy consequences if the British thought the Americans were stalling in negotiations, Lilienthal would give no "blank check." The most he would agree to was to have the AEC and military give the State Depart­ment a sense of how far to go in the negotiations and support the State Department when it argued with the JCAE to keep the raw material and aid questions separate. 17

The meeting on November 26, 1947 with Vandenberg and Hicken­looper, despite Lovett's fears, went smoothly and by December 5 the State Department had a negotiating position acceptable to all. It did not offer as much freedom of action as Kennan's original proposal but was at least a workable plan. Keeping separate the questions of information exchange and raw material allocation, the United States would try to convince the British to bring all present raw material stocks beyond current operating needs to North America. It would then offer limited exchanges of information, but only in designated fields (not to include weapons information areas) and only if such exchanges promoted American national security. At the special insistence of the JCAE, the United States would demand that the Quebec Agreement and other past arrangements (except for the CPC and CDT) be officially terminated so that the United States no longer need consult on the use of the atomic bomb. The JCAE agreed to refrain from threatening economic pressure unless the negotiations stalled and the British refused to compromise. The committee members were given assurances they would be kept apprised of developments and of the terms of the
agreement before anything was signed. 18

Keeping the negotiations moving along at a rapid pace was extremely important, Lovett knew, because Vandenberg had decided to delay the debate in Congress on the European Recovery Program (Marshall Plan) until December 17. He wanted to see how negotiations with the British on atomic energy cooperation were progressing before giving his critical support to passage of the bill. Lovett, therefore, hastily informed the British and Canadians that the United States was ready to open talks and left them only a few days to prepare their position. The British did not realize that the Americans wanted to talk primarily because of the raw material problem. Although they understood that the Americans were deeply interested in increasing their supplies of raw materials, they also believed that the Americans had decided to open negotiations because they, like the British, were alarmed at the worsening international situation and generally desired to pool information and technical expertise. They also noted the presence of more Anglophiles in key positions in the Truman administration than had been the case in 1945-46. Confident, then, of significant progress on information exchanges, they intended to be accommodating on raw materials, while retaining enough uranium and thorium for themselves to build up a stock of material. They would also raise the question of weapons information and the production of fissionable material but would not insist on agreement. The most important thing was that they secure a satisfactory information exchange agreement and concede no restriction on their right to build plants and/or accumulate uranium or atomic weapons in the British
Opening the negotiations in Washington on December 10, 1947, the members of the CPC quickly established a subcommittee to study likely areas of cooperation on information exchanges, set up a working group to consider a new raw materials agreement, and planned, if the talks were successful, to make a public announcement attesting to the fact that the British, Canadians, and Americans had succeeded in improving atomic energy relations. Progress, as Lovett and the State Department had hoped, was rapid. On December 12, the subcommittee on information proposed exchanges in nine areas—declassified subjects, health and safety, research uses of radio-isotopes and stable isotopes, fundamental nuclear and extra-nuclear properties of all elements, detection of distant nuclear explosions (important to detect future Soviet atomic detonations), fundamental properties of reactor materials, extraction chemistry design of natural uranium reactors, and general research experience with low power reactors. The report was accepted at once. More difficult was the question of raw material allocation. The British scowled at American assertions that location of stockpiles and large-scale plants in Britain was unwise and doubted whether the raw material supply situation was as bad as the Americans suggested. New sources of uranium in South Africa, they maintained, would provide more ore than originally thought possible and sufficient stocks would be available, therefore, to feed the voracious appetite of the American program while still permitting the British to maintain a healthy stockpile. Subsequently, the British agreed to give the United States the entire uranium production from the Belgian Congo for the next two
years but no stocks presently in Britain. A subcommittee was set up to iron out remaining differences.\textsuperscript{20}

Although the overall negotiations had by December 17 (the day Congress began debate on the Marshall Plan) gone very well, Kennan worried about the reaction of the JCAE to the hang-up over a new raw materials agreement. As approved by Vandenberg and Hickenlooper, the American proposal called for most of the British stockpile to be transferred to North America, yet British Foreign Secretary Bevin and others in the British Cabinet were blocking the transfer on "emotional grounds." Bevin in particular was sensitive to the argument that raw material stockpiles and large-scale plants might not be safe in the British Isles and was determined to resist American efforts to cut back the British program.\textsuperscript{21}

It turned out that Kennan's and the State Department's fears that the JCAE would overreact and rashly attempt to use economic coercion to force the British to make concessions in the atomic energy negotiations were excessive. Once a compromise was finally worked out and explained to the JCAE, the members agreed that it was the best the United States could get from the British and gave their approval. On January 7, 1948, the new agreement, known as the \textit{Modus Vivendi}, was signed. According to its provisions, the United States would receive all supplies from the Belgian Congo for the next two years, and would receive portions of the British stockpile to reach a minimum figure of 2,547 tons of raw materials if the Belgian Congo amount was insufficient. On the question of information exchanges, the United States and Britain agreed to cooperate in the nine areas recommended by the first
subcommittee, though Lilienthal made sure the AEC had full discretionary authority over release of information to the British. Because the British retained contacts with Commonwealth scientists from New Zealand, Australia, and South Africa who had worked on the Manhattan Project, they were permitted to continue information exchanges with these Commonwealth countries in several areas—declassified subjects, health and safety, detection of distant nuclear explosions, survey methods for source material, cooperation on extraction of ores, design information on research reactors, and general research experience. With respect to other issues of concern, the *Modus Vivendi* officially ended all previous atomic energy agreements except for those dealing with joint control of raw materials. The CPC and CDT would continue. The British right of consultation on the use of the atomic bomb, however, would not. As Vandenberg and Hickenlooper had insisted, the President's freedom of action for ordering the use of the bomb was now secured.22

For the British, the *Modus Vivendi* was a major triumph. They had given up raw material supplies they would probably never use, achieved a moderate but meaningful first step toward complete exchange of atomic energy information, and set the stage for further efforts to tighten cooperation. The Americans, in addition, had seemed to accept location of raw material stockpiles and plants in the British Isles and this had been a key point in persuading the Cabinet to relent and permit the clause shipping some uranium from the British stockpile to the United States. Acceptance by the Americans of stockpiles and plants in Britain had one more important consequence. It meant
that the Americans might be more inclined to acquiesce in, if not assist, the manufacture by Britain of atomic bombs and their deployment in the British Isles.23

On the American side, the agreement was also viewed in a favorable light. The British right of consultation on the use of the atomic bomb—although generally considered by the Americans to be without force since the end of the war—had officially been terminated. More positively, the uranium problem was solved (for two years only), better feeling between the two allies effected, and security for the most important atomic energy secrets preserved. The United States had again made no promise to give Britain information for the building of large-scale plants and manufacture of atomic bombs. Also significant was the performance of the policy-making establishment. Despite the time and effort required to reach consensus (and despite stubborn congressional resistance), the American government had proven it could take necessary action to improve atomic energy cooperation with its chief ally.


1Acheson, Present at Creation, pp. 236-237.


3Acheson, Sketches From Life, pp. 162-163.


5Joint Atomic Energy Hearings, 80th Congress, 1st session, February 10, 1947, pp. 289-294. During the confirmation hearings for
Lilienthal as AEC Chairman, Senator Kenneth D. McKellar (D., Tennessee) demonstrated that hostility by questioning Acheson very closely about his, Acheson's, "internationalist" approach, by scoring some parts of the Lilienthal-Acheson plan for international control of atomic energy, and by mocking the pronunciation of Acheson's name.


Lilienthal to Marshall, October 1, 1947, AEC in Hewlett, Atomic Shield, pp. 275-276; Memorandum by Kennan and Gullion (PPS 11),
Washington, October 24, 1947, S/AE Files, FRUS, 1947, 1:844-847; Millis, Forrestal Diaries, pp. 310-311. Note that although Lovett believed the United States should go forward with improved atomic energy ties with the British, his personal opinion of the quality and ability of the British Labor government's staffs was quite harsh. He was also critical of the public position of the British government that atomic energy would solve all of Britain's energy problems. Commercial and industrial development of atomic energy, he told Marshall, Harriman, and Baruch on September 10, 1947, was years away.


V. THE BRITISH WANT MORE

"Senator Hickenlooper stated that it was his understand­
ing that England's primary activity was to be along the
lines of power production, and there was no indication of their
entering into weapons production. He now finds that they are
actively engaged in the production of plutonium, which could
mean nothing to him but the production of weapons."**

---excerpt from August 12, 1948 meeting
between Hickenlooper, Vandenberg,
and Forrestal

By December 1947, Ernest Bevin, the British Foreign
Secretary, was completely disillusioned about the possibilities for
postwar cooperation with the Soviet Union. In early 1948, as a conse­
quence, he pushed for organization of the Western European nations into
a defense alliance closely linked to the United States. After the
Communist coup in Czechoslovakia in late February and March, Britain
concluded the Brussels Treaty, a 50 year military alliance with France,
Belgium, the Netherlands, and Luxemburg. Pleased by the tougher
British stance, the American Congress approved the Marshall Plan for
massive economic assistance to Western Europe and passed the Vandenberg
Resolution in June, urging the United States to associate itself with
Western European defense. The next month, the Soviets imposed a land
blockade on Berlin. The ensuing ten month long crisis unified the
West and facilitated creation of the North Atlantic Treaty Organiza­
tion in April 1949.
Direct military cooperation between the United States, Britain, and Canada had by spring 1948 become a necessity and planning officers from the three countries met in Washington in May to approve HALFMOON, an outline emergency war plan. The planners foresaw a Soviet offensive against the European landmass, an attack on Middle East oil, and an attempt to neutralize the British Isles by air attack. The allied response would be a strategic air offensive, highlighted by attacks by bombers based in Britain. When the Berlin blockade began in July, the United States took steps to give itself the partial capability to carry out the plan. B-29 Superfortresses were sent to air bases in East Anglia in Britain and although not modified to carry atomic bombs until 1949-50, and not actually equipped with such until mid-1951, increased in number until Britain became the primary base for a possible strategic bombing campaign. By the end of 1948, there were three groups operating out of seven bases.¹

To the British Chiefs of Staff, increasingly strained relations with the Soviets, dramatized by the February 25 Communist coup in Czechoslovakia, made urgent a more thorough examination of Britain's strategic vulnerability and measures to be taken to insure the defense of the British Isles. It quickly became clear that British defenses against air attack were very weak and that in the future Britain would have to rely on a policy of deterrence to ward off a possible atomic bomb assault by the Soviet Union. The problem was, however, that—aside from a winter 1947-48 United States Air Force Directorate of Intelligence study suggesting that 70 atomic bombs delivered on target would devastate the Soviet Union—no rational
estimate had even been made of the number of atomic bombs Britain, together with the United States, would need to deter the Soviets. The British Chiefs tried. Predicting that the Soviets would within a few years develop the atomic bomb and begin stockpiling, they suggested that in 1957 the United States and Britain would need a total of 600 atomic bombs and that Britain's share should be 200. And yet Britain in 1948 had the projected capacity with its two planned atomic piles to produce enough fissionable material for only 100 bombs by 1957. It could reach 200 by 1959 if it added a third pile and built a high separation diffusion plant to produce highly enriched uranium 235 as a fourth, but this was not practical. British finances were already badly under strain from trying to recover from the war and restore the economy and the most the government could finance was three piles and a low separation diffusion plant to be constructed in 1950.  

The March 17, 1948 Brussels treaty with France, Belgium, the Netherlands, and Luxemburg might improve Britain's defense posture in Europe, but the only way to accelerate the British atomic program was to get help from the Americans. The British military already acknowledged that Britain could not fight another world war without the United States—especially a world war fought with atomic weapons—and if the Americans could be persuaded that the time was right to cooperate in all areas of atomic energy development, Britain might still be able to construct its share of the deterrent force by the close of the 1950's. The British government, too, recognized the logic of trying to make progress in Anglo-American atomic relations.
The *Modus Vivendi*, British leaders thought, had created a much better atmosphere for cooperation and the Americans must see that the current international situation required coordination of effort in all fields.

In March 1948, therefore, they informed the Americans they had, from January 1947, been conducting research and development on atomic weapons in a special section of the Ministry of Supply under the direction of Lord Charles Portal, former British Chief of the Air Staff 1940-45. The work was at the stage where total secrecy was too difficult to maintain and might impede progress on the project. The British government would soon go public with the news. Making no request for weapons-related information at this time, they nevertheless gave the Americans the clear impression they would do so in the near future. This impression was reinforced when Admiral Sir Henry Moore, head of the British Naval Mission in Washington, had breakfast with Secretary of Defense Forrestal at the end of the month and discussed the British decision to manufacture atomic bombs.⁴

Some members of the AEC, particularly Lewis L. Strauss, a Wall Street financier and retired admiral, were alarmed by the news of the British atomic bomb development. Whether because of this news or out of genuine concern not to violate the McMahon Act, the AEC moved very slowly in fulfilling the information exchanges agreed to in the *Modus Vivendi* and failed to meet British expectations. The United States government would comply with the provisions of the agreement, but only after every precaution had been taken to insure that no information not authorized by the AEC and the military be exchanged and only if the information were being exchanged for
On May 28, an AEC technical exchange team composed of scientists Walter H. Zinn, George L. Weil, and Charles W.J. Wende arrived in Britain for a firsthand look at the British atomic energy program. On a visit to the main British research facilities at Harwell on May 30, they discovered that the British were apparently working more vigorously to produce plutonium for atomic bombs than they were in trying to develop atomic energy for electric power generation. The state of the British program was such, they reported shortly after their return to the United States in early June, that the British had made considerable progress and would eventually manufacture an atomic bomb. Commissioner Strauss was adamantly opposed to helping any country obtain the atomic bomb and attempted, at a meeting of the AEC on June 30, to persuade his colleagues to block exchanges of information in areas vital for further British progress—fundamental properties of reactor materials, technological developments in equipment and production processes, and weapons design. An equal exchange of information, he reminded the commissioners, had been the fundamental basis of the Modus Vivendi and since the British had no information of equal value to trade, the United States could properly stop all contacts. Although inclined to go forward with the information exchanges (especially in the area of fundamental properties of reactor materials), Lilienthal agreed to seek the advice of the National Military Establishment and State Department at the next meetings of the American Members of the CPC on July 6 and 7 before calling for a final vote of the AEC.
At those meetings—at which Strauss, not a member of the CPC, was not present—Lovett, Donald C. Carpenter, Deputy to the Secretary of Defense on Atomic Energy Matters and head of the Military Liaison Committee (MLC), and William Webster, Carpenter's assistant, told Lilienthal that so long as the United States continued to receive adequate supplies of raw materials, they did not favor any action to oppose British development of an atomic bomb. When the British program finally succeeded, Lovett suggested, the United States could perhaps attempt to persuade the British government to store all British bombs in Canada for safekeeping, but that could be done later. It was decided to continue cooperation along the lines of the Modus Vivendi and even consider new areas of cooperation on information exchanges if the British made a formal request. 7

Realizing suddenly that he was fighting alone against the near unanimous opinion of the other policy-makers that cooperation on atomic energy matters with the British was the proper policy to follow and ought to be safeguarded if not expanded in order to assure British cooperation on control and allocation of raw materials, Strauss arranged to meet with Forrestal on July 8 prior to a morning meeting of the AEC. He took a cautious line. He had no objections, he said to British possession of atomic weapons, just so long as they did not manufacture them in the British Isles. That would be unwise. Forrestal shrugged off his complaint. The United States, he replied, by exchanging information with the British, was insuring its supplies of critical raw materials. Successful production of atomic bombs by the British, moreover, would boost their self-confidence and make Britain
a more dependable ally. Strauss was still disturbed. Information exchanges and the British atomic bomb project, he maintained, were dangerous for American security. Secret information could be leaked through the British program to the Soviets and British weapons and atomic energy installations would be subject to surprise invasion and capture in a war.8

Unable to rouse Forrestal from what he considered a complacent sense of security, Strauss attended the AEC meeting at 10:30 A.M. and listened to Lilienthal relate the discussions which had taken place at the July 6 and 7, 1948 meetings. Shaking his head in disbelief that the State Department and National Military Establishment could be so blind in this matter, he reminded the commissioners that at the time of the negotiations of the Modus Vivendi he had been insistent that the United States only agree to general areas of information exchanges so that the AEC would have the right to review specific British requests for information and weed out the dangerous ones. Now, in the two reports (AEC 43/11 and 43/13) before them, the commissioners were being asked to approve something very dangerous, an exchange of information on the fundamental properties of reactor materials, which went far beyond the general area agreed to on January 7, 1948. Since the specific data proposed for the exchange would greatly assist the British in producing atomic weapons, and since he doubted that the formal policy of the United States was to aid any country, even the United Kingdom, to develop atomic weapons, he opposed the exchange. Commissioner W.W. Waymack and Lilienthal countered that Strauss's objection went to the general thrust of
national policy, already decided, and that the proposed information exchanges as set forth in AEC 43/11 and 43/13 were "clearly within the scope of the January 7 agreement." But Strauss suggested that the Secretaries of State and Defense might not be aware of the extent of the British bomb project and the President too should be made to understand what was at stake. Lilienthal was patient. He repeated that at the July 6 and 7 meetings, Lovett and he had fully explained the implications of the Zinn-Weil-Wende report and what it said about British atomic energy activities. However, in order to satisfy Strauss that every proper precaution was being observed to see that American atomic secrets were being protected, he proposed that the AEC, after consultation with the National Military Establishment, make a prompt report of the situation to the JCAE. The report would take the form of a general review of the progress of the technical cooperation program. The full commission voted to accept Lilienthal's suggestion, but also approved, over Strauss's objections, the recommendation for information exchanges with the British set forth in AEC 43/11 and 43/13.9

If Lilienthal thought he had temporarily calmed Strauss's fears, he was mistaken. A few days later, Strauss came back to discuss the matter and was so worked up "his hands were trembling most of the time" and he wanted to go directly to the President to brief him. Then he blurted out what he really thought of the British. They were too far to the left, he said, and might give the secret of the atomic bomb away to the Communists. Some of them—British Communists—sat in Parliament. Lilienthal quickly called Lovett to warn him of Strauss's
mood and Lovett complained that if Strauss kept on, British Intelligence would hear of his comments. He wanted Lilienthal to get Forrestal and Bush and straighten Strauss out.  

It is clear at this juncture that in the minds of State Department officials, military leaders, and a majority of the AEC, the importance of improving relations with the British either for the good of the overall relationship itself or for such matters as maintaining cooperation on joint control and allocation of raw materials and expansion of American right to use British air bases outweighed potential damage done by leaks of information through the British program to the Soviet Union. It also outweighed the danger posed by location of atomic energy installations, raw material stockpiles, and even atomic weapons in Britain, though it must be remembered that American policy-makers did not believe the British were close to producing an atomic bomb nor would be for some time. Under these circumstances, they favored giving the British most of what they wanted up to and including some information which might be of help to the British in building an atomic bomb.

The extent to which AEC commissioners were willing to go was revealed in the Cyril Smith affair. The incident was played out as the Soviets, reacting to Western efforts to bring West Germany back into the economic, political, and military mainstream of Western Europe, began their blockade of all rail and road traffic from West Germany to Berlin on July 24, 1948. After the full AEC approved the exchange of information with the British on the fundamental properties of reactor materials on July 8, Commissioner James B. Fisk authorized
Smith, an American scientist of British background and member of the General Advisory Committee to the AEC, to visit Harwell in Britain and brief the British. But Fisk interpreted "fundamental properties of reactor materials" to include basic metallurgy of plutonium—critical information for making an atomic bomb—and Smith left on his trip at the end of July. Meanwhile, Donald Carpenter heard unofficially from Admiral Moore that the British government would soon ask for atomic weapons information. After telling Lilienthal, Lovett, and Fisk of this development on August 3, Carpenter went to Senator Hickenlooper to convince him granting the British request when it came would be a prudent step. Aghast, Hickenlooper arranged to meet with Strauss on August 11. On that very day, by coincidence, Strauss finally saw Fisk's authorization of Smith to discuss with the British basic metallurgy of plutonium and frantically tried to have Sumner T. Pike, Acting AEC Chairman in Lilienthal's absence from Washington, contact Smith and stop the exchange. Pike at first refused.  

The next day, Hickenlooper and Vandenberg demanded a meeting with Forrestal, who called in Bush and Carpenter, and protested the proposed exchange as a violation of the law. Data on basic metallurgy of plutonium was weapons information, they said, and outside the boundaries of the Modus Vivendi. Despite Bush's insistence that the British plutonium atomic bomb program had been known to many in the American program before the signing of the Modus Vivendi and that no excitement at confirmation of this news was warranted, Hickenlooper was furious. He insisted the exchange be stopped and, with Vandenberg, demanded that the MLC exercise more control over the flow of
information to the British. That flow, Forrestal reminded, could not be halted completely because securing raw materials was the primary American objective and stopping all exchanges would damage that goal. But he did instruct Carpenter to call Pike and convince him to direct Smith to withhold the controversial information. This was done.\textsuperscript{12}

A few days later on August 16, Carpenter tried to warn off the British from making a request for atomic weapons information at that time. The JCAE was alert and aroused, he told Dr. F.N. Woodward, Director of the British scientific mission in Washington, but if the British agreed to manufacture their weapons in Canada, the committee might be persuaded to relent. Woodward refused. The British military, he said, considered Canada just as vulnerable as Britain.\textsuperscript{13}

The British obviously felt they had waited long enough for the American policy-making bureaucracy to sort itself out and the administration to come to the conclusion that improved atomic energy ties with Britain were desirable and decided to ignore Carpenter's warning. On September 2, therefore, Moore handed Forrestal the official British request, written by British Minister of Defense Albert V. Alexander. Describing the British program as "well-launched," Alexander asked for an exchange of information on atomic weapons and said that the United States should comply for the common interest. Both would be stronger if they worked together. Likely areas in which the British would need assistance were metallurgy and fabrication of plutonium, proximity fuses, and arming and safety devices in aircraft carrying atomic bombs. To discuss the British request, Carpenter and Woodward met again on September 16. Mistaking the provisions of the
Modus Vivendi, Carpenter told Woodward he thought the British had agreed to consult before undertaking the manufacture of atomic weapons. No, Woodward corrected, there was no provision for consultation, just notice in advance of building a bomb, and the British had complied. When Carpenter tried again to persuade Woodward manufacturing the British bomb in Canada would be wise, Woodward became angry. England was just as safe as Canada, he insisted, and this was something about which all British leaders agreed. Carpenter too showed annoyance. He reiterated his earlier statement that the British government should not have made a request for weapons information at this time and bluntly stated that American security could be damaged if the United States agreed to give the British weapons information and it was leaked to Moscow. This was too much for Woodward. He shot back that British security on atomic energy matters might well be better than American. He indignantly invited the United States to send representatives to review British security and declared that with or without American assistance, Britain would press on with its program to build a bomb. Carpenter asked what would be the British attitude if the United States gave Britain atomic bombs in exchange for discontinuing the British program and Woodward expressed no opinion. Higher authority would have to make that decision.14

Woodward had revealed just how bitter the British were over what they considered to be the unfair and insulting treatment they had received at the hands of the Americans with respect to atomic energy matters. But others realized that no matter how much better they might feel after venting their frustrations with the Americans,
meetings such as the one between Carpenter and Woodward advanced their cause not one inch. In order to clear the air, therefore, John N. Henderson of the British Embassy staff and member of the Joint Secretariat of the CPC, met with Arneson, now Special Assistant to Lovett. Henderson was very conciliatory. His government was concerned, he told Arneson, that the Carpenter-Woodward meeting might have negative consequences and assured him that British weapons facilities in the British Isles could be defended against realistic threats, fifth column action for example. (The implication of his assurance was that short of attack by enemy bombers in a war, British atomic installations were safe). He also assured Arneson that even with American help, the British program would not succeed in building an atomic bomb in the near future and that Britain would continue to need American assistance for its defense and the defense of Western Europe. British dependency upon American defense assistance was so great, in fact, that should the United States withhold from Britain critical conventional rearmament equipment, the British government would have to give serious consideration to dropping plans for atomic weapons production. In any event, his government desired a quick reply to its request. Arneson, recognizing that what the British were really angling for was the long-cherished goal of a full partnership in atomic energy, replied that for such a major decision, the British yet again would have to be patient.  

The British did, however, get quick action on their specific request for information on the basic metallurgy of plutonium. After his stormy meeting with Woodward, Carpenter forwarded the request to
the JCS. Their opinion was mostly negative. Emphasizing security considerations, they advised that the United States should limit cooperation to the nine agreed fields of the Modus Vivendi. But if the administration should decide to initiate further cooperation, the United States should insist that stockpiles of raw materials, plants to produce fissionable material, and atomic weapons be removed from the British Isles and stored on the North American continent.  

On September 30, Lovett met with Sir Oliver Franks, the British Ambassador, and received from him a note from the British Advisory Committee on Atomic Energy expressing concern at the tightening of restrictions on the exchange of information on the basic metallurgy of plutonium. Lovett could only inform Franks of the JCS opinion that a British weapons program located in the British Isles would be too vulnerable to Soviet attack and that the JCAE was so opposed to expanded cooperation that the British would not be wise to pursue the matter any further. Referring to Henderson's concern that the United States might use economic pressure or a cutoff of conventional armament to try and compel the British to desist from their atomic bomb project, Lovett assured Franks that this would not happen. Atomic energy matters and funds for the European Recovery Plan would not be linked.

Knowing the British were extremely disappointed at this latest rebuke to their quest for expanded cooperation, Arneson and most of the AEC commissioners feared that they would retaliate by stalling negotiations for a new raw materials agreement for 1950-51. This might have a devastating impact on American uranium supplies.
Aside from the approximately 20,000 tons per year of Belgian Congo uranium going into the CDT, alternative sources were insignificant. A small Canadian mine produced 150 tons a year and lower grade uranium ore recently discovered on the Colorado Plateau had yet to go into production. It was projected that the entire plateau area would only yield 300 tons a year at its peak. Although this projection proved completely false and American production increased to the point in 1955 where the United States was approaching self-sufficiency in uranium, three quarters of the American supply in 1951 still came from the Belgian Congo.  

Sour relations with the British, American policy-makers worried, might also disturb efforts to negotiate with South Africa for uranium ore becoming available in large quantities in 1952 and 1953. Although some within the American policy-making bureaucracy continued to talk about economic coercion to keep the British in line and asserted that unilateral American action might be able to secure uranium supplies from South Africa and the Belgian Congo, Arneson saw this as "dubious." The tactic might backfire, he wrote on November 2, 1948 the day of Truman's surprise defeat of Thomas Dewey, and make the British doubly angry. In his opinion, therefore, although the State Department could do nothing to change the decision on the British request for weapons information, it could throw its weight on the side of improved cooperation in the nine fields and counterbalance the tightening of restrictions caused by JCAE pressure on the MLC. Lovett favored the idea. He favored it but was forced to tell Franks in mid-November that further negotiations would have to wait until 1949
when the atmosphere in Washington became more receptive. By then, failure of international control would be complete, the Democrats would take control of the Senate (ousting hardliner Hickenlooper, a Republican, from chairmanship of the JCAE and replacing him with the more reasonable McMahon), and the battle over control of atomic energy in the United States currently being waged between the National Military Establishment and AEC would have been resolved. Franks sensibly agreed that Lovett's advice to wait was sound.19

The State Department had one more atomic energy headache to resolve before it could marshal its forces to prepare for another campaign on behalf of improved Anglo-American relations in 1949. In late August 1948, Donald C. Maclean informed Arneson that the Norwegian Atomic Energy Institute had requested British help with the processing of uranium oxide in a British experimental refining plant. On November 16, the same day of Lovett's meeting with Franks, Arneson told Henderson that the State Department thought it risky to give secrets to the Norwegians because of the danger that the Soviet Union could occupy Norway (in a future war) and gain possession of purified uranium oxide. Henderson countered that if the British did not help the Norwegians, they might build a refining plant themselves and the Soviets, should they sometime in the future invade Norway, might seize both the purified uranium oxide and the refining plant. The British also had a more selfish motive for assisting the Norwegians. If they failed to approve the Norwegian request, the Norwegians and other Europeans considering atomic energy programs might turn to the French for assistance and the British would lose potential customers and
influence.  

Seeing that the British were leaning toward agreeing to the Norwegian request, Lovett on November 22, 1948 promised that the administration would conduct an overall review before giving a final opinion on what the British should do. The JCS were given the task of making a comprehensive study. Not unexpectedly, they saw nothing to be gained (from the American point of view) from the British fulfilling the Norwegian request. Should the British comply, they would only be setting a dangerous precedent for the future, encouraging the Norwegians to make further requests for assistance and information, and encouraging other countries to make similar appeals. Having agreed to the Norwegian request, the British would find it difficult saying no to others. Second, giving the Norwegians secret information would increase the likelihood of leaks and so potentially shorten the "grace period" during which only the United States had the atomic bomb. Third, as Acheson had told Henderson, location of atomic energy facilities and raw material stockpiles in Norway would put these valuable installations within easy reach of the Soviets. Fourth, development of atomic energy by the Norwegians would be a large and unnecessary expense subsidized indirectly by the United States since Norway received American aid through the Marshall Plan. Lastly, a British-assisted Norwegian program would place an additional strain on scarce raw material sources and possibly conflict with American needs. The JCS advised that Britain, and the United States, should turn down requests like the Norwegian unless "in return for direct and major security benefits not obtainable otherwise." Although they did not
directly address Henderson's point that the British might lose out
to the French in the competition for clients and influence in Europe
if they did not help the Norwegians, the JCS did say that a British
refusal—even if it did result in Franco-Norwegian collaboration
—would successfully delay the Norwegian program. In the final analy­
sis, the United States was far more interested in preventing propaga­
tion of atomic energy installations and capability to produce atomic
weapons than it was in assisting the British to regain their pre-war
position in Western Europe. 21

It is some evidence at least of British dependency on
American economic assistance, desire for continued military/strategic
cooperation, and hope for improved atomic energy collaboration in the
near future that the British, having in their minds been slighted
repeatedly by the Americans on atomic energy matters, did not feel
free to disregard American wishes and comply with the Norwegian
request. Despite their strong desire to regain influence in Western
Europe and establish close and potentially profitable atomic energy
contacts with other nations, they tried to satisfy the Americans.
On December 2, 1948, the British Embassy in Washington informed the
State Department that the British government would give an affirmative
reply to the Norwegians on their request but would delay beginning the
Norwegian contract until that work could be fit into the British
program. The Americans strongly protested. The British action, Lovett
told Franks, was not made in the spirit of the Modus Vivendi. The
British had promised "due prior consultation" and the Americans were
interpreting that to mean concurrence before the British could go
ahead and disclose classified information to a third party. The British tried again. On December 21, Franks informed Lovett that the British government had yet to make an official response to the Norwegians, but British policy was to merely "encourage them (the Norwegians) with the hope that they (the British) would be able to assist them." In any event, it would be two years at least before they would be able to help the Norwegians so there was no immediate security risk. Realizing that the British were now attempting to forestall a Franco-Norwegian agreement on atomic energy without committing themselves (at least until American security fears quieted or most American policy-makers could be satisfied that cooperation with countries like Norway was not prohibitively dangerous), the State Department replied that it understood the British policy and had no objections.22

American wishes had won out again, but State Department officials had to wonder how long the British would go on deferring to administration desires without receiving greater compensation in the form of increased cooperation, especially American assistance for British efforts to build or obtain the atomic bomb. And it was clear that the United States' chief ally would obtain a bomb—with or without American assistance. British defense requirements and a desire for greater political influence in Europe and the world, although tempered by economic realities, made certain that the British would indeed carry through with their atomic bomb project. But what would their attitude be if they succeeded without American help? Would they—weapons in hand and pressured by European allies (most notably
France) to share information—look with favor on American non-proliferation and maximum security policies? Would they recall with satisfaction the conclusion to the Cyril Smith affair and the American rejection of their request for atomic weapons information? Would they still listen with sympathy and understanding to State Department explanations that opposition from the JCAE (and AEC commissioner Strauss) and not stubbornness by the administration blocked cooperation? Or would they reject all excuses and deny the United States any influence over British atomic energy policy. Alarmed by this possibility, and convinced of the positive benefits of cooperation, American policy-makers amenable to closer Anglo-American atomic ties set about formulating proposals for a sea change in American atomic policy. They prepared to present these proposals when the second Truman administration took office.


2 Gowing, Independence and Deterrence, Vol. I, pp. 215-223. In summer 1951, the British would finally decide in favor of building a high separation diffusion plant in order to obtain a secure supply of uranium 235, important for future uses of industrial power and sub propulsion.

4 Memorandum of Conversation by Gullion, Washington, March 19, 1948, S/AE Files, FRUS, 1948, 1:700-701; Millis, Forrestal Diaries, p. 407. The British announced on May 12 in the House of Commons that they had underway an atomic bomb project.


8 Forrestal Diary, July 8, 1948, JFP in Hewlett, Atomic Shield, p. 288. CM 184, July 8, 1948, AEC, photocopy.

9 CM 184, July 8, 1948, AEC, photocopy.

10 Lilienthal, Journals, pp. 384-385.


12 Memorandum of Meeting by Carpenter, Washington, August 12, 1948; Memorandum by Bush to Forrestal, Washington, August 12, 1948, S/AE Files, FRUS, 1948, 1:734-739; Millis, Forrestal Diaries, pp. 471-472.

13 Carpenter, Memorandum of Conversation with Dr. F.N. Woodward, August 16, 1948, AEC in Hewlett, Atomic Shield, p. 293.


20 British Embassy to Department of State, Washington, November 16, 1948, S/AE Files, FRUS, 1948, 1:786-787.


VI. WE AGREE TO COOPERATE—ALMOST

"I believe public sentiment is ready to support a strong Presidential drive for the kind of setup we ought to have at this time. Bearing in mind that our international proposals appear stymied, must we not try to establish some system (with Britain and Canada) which will integrate and make most effective the knowledge and skills available in each country, allocate production and other effort in the most efficient and effective way, and keep the major producing units in the United States?"

--David E. Lilienthal, August 19, 1949

1949 was a crucial year for Anglo-American atomic relations. It was the year the American policy-makers finally achieved substantial consensus and it was the year the Soviets manufactured and successfully detonated an atomic bomb. This latter event temporarily gave the administration the upper hand in dealing with JCAE opposition to information exchanges and improved cooperation.

Paralleling the situation in 1947, the early part of 1949 saw important personnel changes in key administration posts tilting the balance in favor of improved ties to the British. Secretary of State Marshall and Under Secretary of State Lovett stepped down and were replaced in January by Dean Acheson, truly an Anglophile, and James E. Webb. In March, an exhausted James Forrestal resigned and was succeeded by Louis A. Johnson. Not favorable to Britain by any means, Johnson nevertheless did not initially exert himself in atomic
matters. On the MLC, William Webster replaced Donald Carpenter as chairman and did exert himself. He strongly advocated a reassessment by the administration of atomic energy relations with the British and helped arrange an informal conference on January 24 and 25, 1949 at Princeton University to find a policy to replace the provisions of the Modus Vivendi, now generally considered unsatisfactory. Chaired by Robert Oppenheimer, Chairman of the General Advisory Committee to the AEC, and attended by Dr. James B. Conant, President of Harvard University, Webster, Lieutenant General Lauris Norstad, Deputy Chief of Staff for Operations of the United States Air Force, and Major General Kenneth Nichols, member of the MLC, all representing the military, Carroll Wilson and Joseph Volpe representing the AEC, and Kennan, Arneson, and George H. Butler, Deputy Director of the PPS representing the State Department, the conference produced several recommendations. In terms of procedure, the participants said, the agencies within the administration should agree among themselves on an appropriate policy, should then approach the JCAE for approval of that policy, and should finally sound out the British and Canadians, especially on the question of whether they would be willing to agree to three broad principles—consultation on location of atomic energy production facilities with due respect for strategic considerations, coordination of programs for effective use of raw materials, and coordination of disclosure of information to other governments to prevent or delay development of atomic energy in other countries. Although it was expected that the Congress would be a hard sell, the participants recommended that the President base the proposal for
improved atomic energy cooperation on the argument that the British would soon have an atomic bomb with or without American help and that collective security would be enhanced by cooperation. An Anglo-American-Canadian atomic partnership would fit nicely with the Rio Pact (for Western Hemispheric defense), the Marshall Plan, and the North Atlantic Treaty Organization (soon to be brought into existence on April 4, 1949 in Washington by signatures of the foreign ministers of the United States, Britain, France, and other Western European states).¹

The British were going to have the atomic bomb soon anyway, the Princeton conference participants hypothesized, and the United States could not stop them. They wanted the bomb for reasons of national prestige, because of the supposed freedom of action it would give in foreign affairs, and because of continued uncertainty about the American commitment to Western European security and to assisting the British atomic energy program. Although the fact of the British atomic energy project was not negotiable, other issues might be. Strategically, the JCS still believed location of plants and material in the British Isles a mistake and that in the event of war those plants and stockpiles would be quickly destroyed or rendered useless. British production capacity for building bombs would then be lost. In exchange for American assistance to help them accelerate the pace of their atomic energy project, the British might agree to relocate a significant part of their program in the North American continent, either Canada or the United States. Likewise, such relocation would prove beneficial from the standpoint of raw materials. Already the
new uranium recovery process (REDOX) for the recycling of depleted materials had improved the raw material situation so that American estimates projected sufficient supplies of uranium for both the British and American programs through 1955. If the British submerged most of their program into the far more efficient American one, significant quantities of raw materials could be saved. Then there was the argument pertaining to overall efficiency and economics. It was an uneconomical division of personnel, information, and resources, the Americans believed, to keep the British and American programs independent of each other. Especially in terms of new ideas, the United States would receive substantial benefit from a fusion of British and American techniques and personnel. The United States, as an alternative, might attempt to continue information exchanges and cooperation in non-weapons information areas, but this would be very impractical. Because of the great mass of information already in British hands, any further information exchange was bound to be helpful for their progress toward building a bomb.

Since American objectives, the participants went on to suggest, were to obstruct Soviet progress in developing the atomic bomb, better the American position vis-a-vis the Soviets, reduce the vulnerability of production capacity and stockpiles to destruction by Soviet attack, improve means of delivering atomic bombs against Soviet targets, and to coordinate atomic energy policy with overall foreign policy, the United States should initiate a complete interchange of information—including weapons information—with Britain and Canada for the most effective use of raw materials, other
resources, and effort, and establish effective coordination with respect to information disclosures to other governments. Full freedom of action for each country within its own program would (theoretically) be preserved, the CPC would continue, and dissemination of atomic energy information to third parties, including Commonwealth countries, would be carefully controlled. To insure maximum strength and public support for the new partnership, the Congress would be asked to confirm the new agreements and the atomic pact would be related to, but not made part of, the North Atlantic Treaty Organization.  

The Princeton conference produced recommendations which, had they come two years or even one year earlier, would have met solid objection from members of the National Military Establishment on the grounds that full and effective cooperation with the British would create serious danger of leaks to the Soviets. Now, although military leaders still insisted that major atomic energy installations not be located in the British Isles, they were prepared to acknowledge that overall cooperation with Britain, in the context of the strained international situation and East-West tensions, had to be secured and that improved atomic energy cooperation was one vital link in Anglo-American relations. Lilienthal's thinking, too, had undergone a dramatic change from the time he first took office as head of the AEC. In January 1947, he had had three narrow objectives—to protect the security of American atomic secrets, to guarantee adequate raw material supplies, and to adhere to the letter of the law as written in the provisions of the McMahon Act. Only slowly had he come to realize that the American program would benefit from improved
cooperation with the British, both in terms of the control and allocation of raw materials and in the advances which would come with the fusion of the British and American programs. He had also broadened his thinking enough to see the importance of improved atomic energy ties for overall Anglo-American relations. Convinced that the Princeton conference recommendations could be the basis for a new American policy, he led the AEC in a vote on February 5, 1949 to adopt them as the basis for greater cooperation with the British and Canadians. Lewis Strauss was the sole dissenter.4

Backed now by Lilienthal and most of the AEC and with the Princeton recommendations in hand, Acheson approached the President and tried to overcome his reluctance to share atomic weapons information with the British. It was for the purpose of keeping atomic energy work out of unsafe Britain, Truman thought, that President Roosevelt had entered into the wartime partnership and he was just continuing the policy. But Acheson persuaded him that a reassessment was in order. On February 10, 1949, he appointed a Special Committee to the National Security Council (NSC) with Acheson (Secretary of State) as chairman and with Forrestal (Secretary of Defense), Lilienthal (Chairman of the AEC), Sumner T. Pike of the AEC, and Admiral Sidney W. Souers, Executive Secretary of the NSC, as members. Acheson and the others tapped Kennan and Arneson from the State Department, Webster and Nichols from the National Military Establishment, and Wilson and Volpe from the AEC to form a working group to do the staff work. Dwight Eisenhower, currently President of Columbia University, was invited to participate.5
The Special Committee issued its report on March 2, 1949 and borrowed many of the recommendations of the Princeton conference. The McMahon Act was no obstacle to improved Anglo-American atomic energy cooperation, the members suggested, so long as the United States government was satisfied that a new agreement was in the interests of American national security. Appropriate consultation with Congress would have to occur, of course, but approval could be given by joint resolution of Congress or some other means. If the breakdown of the international control idea and the need for collective security were emphasized forcefully, the administration would even be able to carry its policy to the public and win wide backing. Internationally, the United States might have to take some flak. The French and others would protest against being excluded from atomic energy cooperation and might even retaliate by making difficult negotiations for the renewal of military arrangements (like the use of bases), but the benefits of atomic energy cooperation with Britain and Canada would compensate the United States for its trouble. Nor should a Soviet propaganda barrage charging an Anglo-American-Canadian pact to dominate the world dissuade the administration from carrying out the new policy. The United States had to achieve maximum security/maximum strength and solve the raw material problem once and for all and this could best be done by effective collaboration with the British and Canadians.6

Achieving maximum security/maximum strength, the committee decided, required a virtual absorption of the British program by the American, similar to what had happened during the war. The United States would permit full cooperation in the weapons field, but the
British must agree to a 20 year pact, institute security safeguards and coordination of disclosure of information to other countries (including the Dominions) to prevent dissemination of secret information, and most important of all, locate major production and storage facilities with "due respect for strategic considerations"—that is, either in the United States or Canada. Atomic weapons components might be placed in Britain, but only if war plans required it. The British and Canadians would, in addition, cooperate on defensive measures which might be taken against a potential Soviet attack and especially on providing bases for American bombers armed with atomic weapons. The provision for cooperation on allocation of raw materials was just as sweeping. Although the raw material situation would improve in 1952 due to recycling processes for depleted materials and new sources of uranium in South Africa, the United States would temporarily—in 1950 and 1951—need a larger share of British stocks. Under the principle of most effective use and in possession of the major weapons producing establishment, the United States could claim up to 90% of all raw materials, leaving the remainder for the British and Canadians to divide. Anglo-American-Canadian partnership would also improve control of raw materials. British influence with the Belgians and South Africans would assist in the negotiation of new uranium agreements and those countries which possessed raw materials necessary for atomic energy development would have to negotiate for assistance in developing atomic energy and accept terms set out by the United States, Britain, and Canada—as opposed to bargaining with all three and playing off one against the others. A united front would
enable the United States to secure its goal of delaying for as long as possible atomic energy development and manufacture of atomic weapons in other countries. The Special Committee's March 2, 1949 report became the official policy of the administration.\(^7\)

In April, even as NATO was coming into existence, Lieutenant General Norstad sounded out British Chief of Staff Lord Arthur W. Tedder about the proposal. Reflecting the British Chiefs' desire for acquisition by Britain of atomic bombs at the earliest possible moment, Tedder said that if full and effective partnership were established, the British government probably would not insist upon a major production program in the British Isles. From the purely military point of view, the British Chiefs could certainly agree to a smaller size program so long as a few atomic bombs were kept in Britain for use according to common war plans. Some plutonium production would have to continue for reasons of national prestige and to win public support, but Tedder would attempt to sell the proposal to British government officials. Greatly encouraged, the State Department wanted to initiate negotiations as early as summer, but a JCAE investigation of mismanagement by the AEC of the American atomic energy program interfered. Kennan explained to Makins that nothing could be done while the JCAE was on the prowl and Makins nodded. The British government too preferred no publicity, he said, for fear the British public might get wind of the more controversial parts of the American plan—the raw materials allocation formula, for example—and react adversely. It did not want to appear to be allowing the United States to dominate.\(^8\)
While prospects for agreement between the administration and the British now appeared promising, the attitude of the JCAE remained questionable. The almost casual manner in which the Special Committee to the NSC glossed over the difficulty of convincing Congress of the advisability of the proposed atomic partnership indicated clearly misplaced confidence. Based upon past statements, the members of the JCAE would favor increased raw material allocation for the United States and location of plants and stockpiles in North America, but would cite security reasons to oppose sharing weapons information or even allowing British scientists to enter the American program. If the British proved intransigent on raw materials, they might threaten economic pressure.

The administration believed, however, that even though Cold War tensions had relaxed somewhat in May 1949 with the lifting by the Soviets of the Berlin blockade and the successful creation of the West German state, it had just the ammunition to break down JCAE opposition. In early July, the members of the JCAE were shown new estimates predicting a Soviet atomic bomb by mid-1950 or 1951 and told that other countries, including France, Norway, and British Dominion nations (South Africa, Australia, and New Zealand) too were pushing ahead with development of atomic energy. The British, Acheson said at a meeting on July 6, were the United States' most valuable ally and could not be coerced into abandoning their program even if Congress used economic pressure. McMahon was not very impressed. The Congress was in a sour mood, he warned, and would give any proposal for cooperation with the British on atomic energy matters a rough time. Why not, Acheson
replied, have the JCAE approve only the idea of negotiations and leave the matter of final sanction until later. After an agreement with the British was reached, congressional approval could be given by a joint resolution of Congress or by executive agreement with the concurrence of the JCAE. McMahon was still skeptical. In response to his question whether the British had any bargaining power—anything the United States truly wanted and needed—Acheson answered vigorously in the affirmative. The British had control of and/or a great deal of influence with countries which possessed much of the raw material sources the United States looked to. McMahon pondered the administration's proposal. Although, he said, the JCAE might consider a plan earmarking bombs for British use, it preferred no American-assisted program in the British Isles. Would the Senator and his colleagues, Acheson asked, be willing to meet with the President and his key advisors to discuss the matter? McMahon said yes.

On July 14, 1949 at Blair House in Washington where the President was staying during the renovation of the White House, the administration made its big push. Present were President Truman, Vice President Alban W. Barkley, new Secretary of Defense Louis Johnson, Secretary of State Acheson, General Eisenhower, Chairman of the AEC Lilienthal, Chairman of the MLC Webster, AEC Commissioner Joseph Volpe, and Gordon Arneson of the State Department. From the Congress came Senators Connally, Hickenlooper, McMahon, Vandenberg, and Millard E. Tydings (D., Maryland), Speaker of the House Sam Rayburn, and Representatives Carl T. Durham (D., North Carolina) and W. Sterling Cole (R., New York). Opening the meeting, Truman told the
congressmen that the United States would never be able to conclude an effective international control of atomic energy pact with the Soviets. The proper policy for the country, therefore, was to move in the direction of closer cooperation with the British. Lilienthal agreed and said that in order for the United States to keep on schedule with its production of atomic bombs, the cooperation of the British for the control of raw materials was critical. Eisenhower then presented the military/strategic point of view. The fates of the United States and Britain were completely interlinked, he told the congressmen, and pointed to the vital importance of British air bases for American strategic war plans. The United States could not fight another war without Britain, he said. And yet the British were so angry and bitter about the state of Anglo-American atomic relations that he feared they might not cooperate fully in the event of war. Acheson added one other point. The British would have two atomic reactors operating at full capacity in one year and would produce a bomb in four without American help. Then they might not be so willing to conclude a partnership on terms so favorable to the United States.¹⁰

In Present at the Creation, Acheson describes Vandenberg's initial response to the administration presentation as his "usual histrionics." With Hickenlooper enthusiastically agreeing, he charged that the American people did not want the United States to give away its atomic know-how to the British and said that the administration was presenting a false impression of the state of Anglo-American relations. The British were far more dependent upon the United States
than the reverse and this time the United States should not bail the British out. Truman, Eisenhower, Acheson, and Barkley, supported by Speaker Rayburn, all tried to convince Vandenberg that assisting the British on atomic energy would redound to the benefit of the United States, but the Senator was adamant. He did not want to give the atomic bomb to the British. The most he would consider was an agreement whereby the United States would produce all the bombs and earmark some for British use. Acheson was disgusted. The British were fully justified in building atomic bombs for their own security, he said, and the United States should not try to prevent them from doing so. Any British government which accepted a proposal like Vandenberg's for the United States to earmark bombs for British use (without giving them actual custody) would be so humiliated it would fall from power. In order to remove the source of irritation from the overall relationship, the United States had to propose a full partnership or nothing at all. Neither Vandenberg nor McMahon reacted sympathetically. They appreciated the need for talks with the British and Canadians, they said, but beyond that would not commit themselves. Hickenlooper felt the same way. The administration had obviously already made its decision to act contrary to the McMahon Act and he thought they were making a serious mistake. The raw material problem was not so bad that the United States had to give away the secret of the atomic bomb. Lilienthal contradicted him. The raw material situation was very bad, he said, and if the United States did not conclude a new agreement to cooperate with the British for the control and allocation of uranium and other materials, the United States would
Aside from Rayburn and Senator Connally, the administration had no support among the congressmen present at the meeting. Nevertheless, the President and his advisors disregarded the opposition of Vandenberg, McMahon, Hickenlooper, and the others and decided to enter into negotiations with the British with a view toward concluding a new, comprehensive agreement. The members of the JCAE went away seething. In the next few days, Senators William F. Knowland (R., California) and Eugene D. Milliken (D., Colorado) resigned from the committee in protest of the proposed policy, others leaked accounts of the meeting to the press, and still others discussed embarrassing the administration by introducing a congressional resolution to forbid negotiations with the British on atomic energy matters without keeping the committee fully informed. McMahon even sent Acheson harsh recommendations for negotiating with the British and Canadians while at the same time lobbying for none. If the administration was determined to open talks with the British over the committee's strongest objections, he wrote the Secretary of State, it ought at least to demand the best possible terms. It must limit the British and Canadian programs to one tenth the size of the American, guarantee 90% of all raw materials for the United States, insist on location of all production facilities (except the two British reactors expected to go critical in 1950) in the United States or Canada, require storage of all nuclear components of British weapons in the United States or Canada for safekeeping (unless common war plans mandated storage in Britain), prevent dissemination of secret information to any other nation, and secure the use
of British and Canadian air bases for the United States. But even an agreement containing all these provisions would be a mistake. Partnership with the British and sharing information with them would mean a loss of security—leaks of information through the British, and Communist sympathizers among them, to the Soviet Union. The British might even threaten the United States with destruction once they had the bomb. Even worse, British atomic facilities would be within range of Soviet airborne troops and bombers, and there might be a Communist revolution in Britain and the installations would be lost to the Soviet camp that way. Perhaps the United States did need British cooperation for the control of raw materials, but British economic difficulty was so great that the Congress could win that cooperation by threatening to cut off aid. Since Marshall Plan money subsidized the British economy and the British atomic energy program, a cutoff would force the British government to comply with American wishes. But even if the British proved stubborn and still refused to cooperate, Yankee dollars would make it possible to negotiate independent agreements with the Belgians and South Africans for their uranium. The British could be cut out completely.¹²

Out of necessity, the administration arranged another meeting with the JCAE, this time with all committee members present but without the President and Vice President. The administration was on the defensive from the start. When Eisenhower tried to play down the size and importance of the British part of the proposed partnership, the congressmen demanded that the British have no facilities for making atomic bombs located in the British Isles and no atomic bombs.
Hickenlooper worried that, atomic bombs in hand, they might attempt to stay neutral in a possible Soviet-American war. But Cole complained that the British might use the freedom of action possession of the atomic bomb would give in the foreign policy area to provoke a war with the Soviets. Vandenberg seemed most interested in the value to the United States of maintaining the atomic monopoly while others wanted to avoid future British competition in the commercial and industrial area, but almost all charged that the administration had no legal right to conclude a new agreement with the British without congressional approval. Most vocal of all was Senator Knowland, his resignation revoked. He demanded veto power over any new agreement and threatened, if this concession were not surrendered, to bring the entire subject up on the floor of the Senate. Acheson tried to suggest that the administration had the authority under the McMahon Act to make atomic energy arrangements with foreign governments if in the best interests of the common defense and security but ran into a storm of criticism. Senator Milliken asserted that Congress, by passing the McMahon Act, had preempted the field of atomic energy and that the administration needed congressional consent even to start negotiations with the British. McMahon said that, no, starting negotiations would not violate the McMahon Act but that actually concluding an agreement without congressional approval and exchanging classified information would. He, Vandenberg, and most of the others demanded the administration reconsider its entire position. Impressed by the virulence of the criticism and threats hurled by the agitated congressmen, Secretary of Defense Johnson broke ranks with Acheson and said that the Pentagon
would reassess its position. The administration's resolve to carry through on its proposed policy of atomic partnership with the British and Canadians had been badly shaken.\textsuperscript{13}

Reluctantly, the President and his advisors abandoned the comprehensive plan. The hostility of the JCAE to atomic energy cooperation with the British—compounded by the fact that Congress had yet to ratify the NATO pact and Vandenberg was so opposed to the administration's proposed negotiating plan on atomic energy that he might retaliate by working to delay ratification—compelled them to settle for an extension of the Modus Vivendi to buy time for the formulation of new proposals. Talks would be undertaken to explore the issues in atomic energy with the British and Canadians, but the administration would seek to maintain the status quo and avoid drawing up a new agreement. Delighted, the JCAE agreed to a public statement by the President announcing the opening of exploratory talks on "basic questions underlying any determination of long-range policy" in the field of atomic energy, but also insisted that Truman make clear the talks would not in any way involve agreement and/or commitment by the United States government prior to further consultation with Congress.\textsuperscript{14}

This was hardly a satisfactory conclusion to the policy reassessment which had begun at the Princeton conference in January. Because the international control idea, due to a vote by the U.N. Atomic Energy Commission to terminate its own deliberations until the Great Powers found a basis for agreement, was now officially dead, and because the military had just proposed a major expansion of the
atomic energy program through 1956, the United States would need more than ever British cooperation for the control and allocation of raw materials. The administration could not afford to postpone substantive negotiations for too long.15

The mood in the State Department in August turned sour. Overloaded with work on the question of military aid, NATO, German policy, and devaluation of the pound sterling, Acheson gave way to Under Secretary of State James Webb on atomic energy matters, but not before receiving inconsistent instructions from the President. In a meeting on August 18, 1949, Truman told him to proceed with talks with the British and Canadians on the basis of the comprehensive plan set forth in the March 2, 1949 report of the Special Committee to the NSC. The policy was correct, the President thought. The only difficulty was the domestic political problem represented by JCAE opposition. The State Department, then, should go ahead with the negotiations and see what developed before deciding what to do about Congress. The promise to the JCAE not to seek a new, comprehensive agreement with the British was forgotten.16

Truman was playing with political fire. Should the JCAE find out he had instructed Acheson and the State Department to negotiate with the British as if no congressional impediment to atomic partnership existed, there would be at the very least a sharp confrontation between the JCAE and the administration. And the chances of the JCAE finding out were not insubstantial in a city noted for information leaks. During the Cyril Smith affair in August 1948, it had been AEC Commissioner Lewis Strauss who had blown the whistle.
Now there was yet another key policy-maker who strongly opposed improved atomic ties with the British. At a luncheon meeting with his deputy, Stephen T. Early, his assistant, General Burns, Admiral Souers, and Webb, Secretary of Defense Johnson burst out that in his opinion Britain was finished as a power in world affairs and that the United States should give no assistance to prop up the British nor cooperate in atomic energy matters. The British Empire was disintegrating rapidly, he said, and it would be to the United States' advantage to use the British in order to gain influence in those parts of the Empire (South Africa, for example, with its uranium mines) valuable to the United States. Unhappy with Johnson and his remarks, Webb wrote a memorandum on August 19 placing the blame for failing to convince the JCAE at the July 20 meeting to back the new policy squarely on the shoulders of Johnson and Eisenhower. They had weakened the presentation, he wrote, by stressing too much the raw material problem and not concentrating on the broader implications of atomic relations with the British and Canadians. Together with Lilienthal, he advocated a "strong Presidential drive" to prepare the public and Congress for full Anglo-American partnership in atomic energy.  

With Johnson and the JCAE on record as opposed to atomic partnership with the British, Webb's and Lilienthal's suggestion had very little chance of getting off the ground. But partially out of frustration and partially because they had analyzed the situation and decided improved atomic energy ties with the British was the proper policy, State Department officials tried to salvage something of the March 2 report. At the meeting of the American members of the CPC
on September 13, 1949, George Kennan of the PPS held court. In regional terms, Kennan expounded, it was better for the British to be linked to the United States and Canada, rather than with Western Europe. Since Western European unity could more easily be achieved on the basis of Franco-German cooperation, the British would have to give up all pretensions to a leadership role on the continent. But that sacrifice would open the door for a future deal on atomic energy. While the administration would enter into negotiations with an eye toward extending the Modus Vivendi for one year, it would also undertake negotiations for a long-term agreement to preempt the Modus Vivendi and bring the British once and for all into strategic alignment with the United States. British atomic energy production and bomb storage in the British Isles would be severely limited and as much as possible of the British program integrated into the American-Canadian effort. Although it was understood that congressional opposition would probably veto a long-term agreement, Kennan's proposal secured the agreement of all the participants and the administration was ready to open negotiations.18

Except for an event which changed the political environment, Kennan's grand conception would never have had a chance to be implemented and the administration would have had to settle for limited negotiations to extend the Modus Vivendi. But the Soviets detonated an atomic device in late August 1949 and upset all the old calculations. Negotiations which were to begin September 20 (the day after the Soviet test was confirmed) took on a new sense of urgency. Although official Washington was still digesting the bad news and
congressmen were too shocked to have formulated firm opinions about the event, it was clear that the plan which the JCAE had summarily rejected in July had become suddenly viable.

The CPC met at the State Department on September 20, 1949 and Webb laid out the American objectives for the British. Because of the problem of securing congressional approval of any new agreement, he said, the administration wanted the British to go along with an extension of the Modus Vivendi followed by a long-term agreement. The new partnership would have to include provisions for a continued flow of large quantities of raw materials into the American program, location of most atomic facilities, raw material stockpiles, and atomic bombs with "due regard for strategic considerations," and adoption of a common policy by the United States, Britain, and Canada toward non-participants to the agreement. British Ambassador Franks had reservations. Continuation of cooperation based on the Modus Vivendi, even for a short time, he suggested, might prove difficult because in some of the nine fields the British had not gotten what they wanted. The exchanges were often slow and incomplete. He did, however, look forward to the time when full and effective cooperation could be established and expressed a willingness to discuss British atomic energy relations with Commonwealth countries and Western Europe. After C.D. Howe, Canadian member of the CPC, declared that his government supported the American position on all points, the CPC set up three subcommittees to discuss strategic and military affairs, raw material supplies and requirements, and information exchanges.19
Differences quickly surfaced. On September 24, 1949, Sir John Cockcroft presented an ambitious British plan agreeing to allocate to the United States enough raw materials for a large expansion of the American program. The British, in return, would be permitted to maintain two atomic piles and a low separation diffusion plant in the British Isles, enjoy full cooperation without restriction on exchanges of information—including information on the design, production, storage, and delivery of atomic weapons—participate in combined testing of atomic weapons at American test sites, and because the British program would be kept so small, receive from the Americans enriched uranium 235 and other components necessary for making improved atomic weapons. Weapons would be stored in the United States, Canada, and Britain "in accordance with common strategic concepts." Other provisions included establishing common security standards in all three countries, effecting a complete interchange of intelligence information, and promising not to disclose classified information to third countries without prior consultation.20

Webb and Kennan became pessimistic about the chances of an agreement. They told the President on September 26, 1949 that the talks had failed because the British wanted much more independence than the JCAE would accept. The President, however, had been invigorated by the crisis atmosphere in Washington and was determined to go ahead with a new long-term agreement if one could be worked out, even if the JCAE objected. If he had to, he declared, he would go to the country over the issue. They were more cautious. They advised that the administration consult with the members of the committee first and
see if their views, in light of the Soviet atomic test, had softened. They repeated these restraining words on October 1 and 3 after representatives on the subcommittees, now consolidated into a steering committee, had made some progress on raw materials and adjourned to consult with their governments.  

With a break in negotiations, the administration briefed the JCAE on October 6 and 13, 1949. In a somber mood even after Congress passed and Truman signed the one billion dollar Mutual Defense Assistance Act to give military aid to American allies, especially in NATO, and still deeply worried by the news of the Soviet atomic bomb, the members were more inclined than ever before to sanction a new agreement for cooperation with the British. McMahon was so discouraged that he saw war between the Soviet Union and United States as inevitable and wanted to blow the Soviets "off the face of the earth, quick, before they do the same to us—and we haven't much time." The mood of the military was equally grim. JCS analysts drew up plans to secure Britain as the primary base for strategic bombing in the event of war, and many top military leaders viewed the next four or five years as the "most critical in the entire history of the country." Some, thinking like McMahon, believed war inevitable.

Negotiations were to resume in November and the Americans reacted unenthusiastically to the British proposals put forward in September. For two weeks in the first part of the month, Webb, Arneson, and General Nichols, at the invitation of the British government, had toured British atomic facilities in order to get a better idea of the progress of the British program. They reported on
November 21, 1949 that the first two British piles and certain other associated chemical processing facilities were so far along that it would be unwise to stop production. The third reactor, the low separation diffusion plant, however, was not far along in construction and the British appeared unwilling to cancel it only for domestic political reasons. They recommended that the American negotiating team insist that the British stop work on the third plant and make other cancellations to limit the British program. The American members of the CPC agreed. They would also propose that all nuclear components for British atomic weapons be made in the United States with only a limited number of assembled weapons stored in the British Isles and only for use in accordance with common war plans. The principle of most efficient use of raw materials and personnel, in addition, would have to be recognized so that the vast bulk of material and all important British scientists would be absorbed into the American program.  

When the steering committee met on November 28, 1949, the British had three principal reservations. They demanded the right to have a small but complete atomic program in Britain to take advantage of future commercial and industrial uses of atomic energy and to have the capability of making atomic weapons should the new agreement some day end, and they wanted the Americans to guarantee a small stockpile of atomic weapons on British soil (about 20) with more stored in Canada and earmarked for British use. They also quarreled with the American proposal for allocating materials. If they were to retain a program in Britain, they would need significantly larger stocks than the Americans were offering.
Attempting to narrow differences, Carroll Wilson of the AEC put forward a compromise proposal on December 2, 1949 based on the principle of increasing the collective strength in the shortest possible time. The British, he said, wanted substantially all the facilities in Britain necessary for the production of atomic weapons. But the United States already possessed the complete information and production capacity to maximize bomb production. The British should, therefore, agree to bring all of their key scientists to the United States to work in the American program while receiving and facilitating a full exchange of information. British and Canadian design ideas would help improve American production facilities and although the integration of the British program into the American would curtail the independent British weapons program for the next few years, the British would be permitted to develop and manufacture certain weapons components in Britain so long as it was in the interest of the combined effort. The possibility would still exist that the British could complete a full weapons establishment in Britain at some future date.  

This was not good enough for the British. Only Sir Henry Tizard, chairman of the main Advisory Council on Scientific Policy, favored accepting the American proposal and agreeing to all weapons production in North America, and that because he believed Britain had to rely on the United States for its strategic bombing capability in any future war. The others, however, were not so sure. They dreaded the day when, for the second time, Anglo-American cooperation would break down and they, as in 1945, would be left without functional atomic plants. Cockcroft and Sir William G. Penney, Chief
Superintendent of Armaments Research of the Ministry of Supply, told Commissioner Wilson that Britain would eventually want its own weapons establishment. Even should cooperation continue, they needed home development of atomic energy for commercial and industrial purposes. While national pride and public opinion factors were also involved in British reluctance to give in to American desires, Webb and Lilienthal believed that bitterness and mistrust built up since the end of the war on both sides hurt the chances for agreement. Secretary of Defense Johnson was in particular an obstacle. Because the United States had not dealt properly with the British, Lilienthal thought, Anglo-American atomic relations were in for more stormy seas in the future. 27

At year's end, the British and Americans had agreed on a broad framework providing for manufacture of most atomic bombs in the United States with "arrangements for a certain number to be allotted to the United Kingdom," but the details were disputed. The British, on December 29, 1949, gave the Americans a draft counterproposal. Limited to three years, the plan permitted the British to build a small, complete program (including later a high separation diffusion plant to produce enriched uranium 235) and to vary the use of raw materials within their program as they saw fit upon due notice to the CPC. Since atomic weapons production would be fully integrated to produce the maximum number of weapons and full cooperation would be established in all aspects of the atomic energy field, the British would have certain constraints on what they could do with their program. But it was clear they intended to strike out more and more in
the direction of developing the commercial and industrial uses of atomic energy. Raw materials, they believed, would be available in sufficient quantities to supply the programs of all three countries. This was little more than a restatement of the British position of September 1949 and the AEC debated it on January 5, 1950. Lilienthal spoke initially about the way the talks were being handled. It was a mistake, he thought, for negotiations of such importance to be discussed almost entirely in a working group setting. Far preferable would be to have a full discussion between the Secretary of State and Foreign Ministers of Britain and Canada on the basic questions of Anglo-American-Canadian relations in order to resolve the fundamental nature of any new agreement. After that, working groups could be given authority to debate specific technical issues. As for the present situation, he was upset that a steering committee meeting had been held on the previous day without consulting him, the AEC Chairman, first. Volpe, who along with Wilson had attended, explained what had happened. The British December 29, 1949 proposals had been given by Acheson to Arneson for analysis and at the meeting, Arneson and Adrian Fisher, the State Department's Legal Advisor, had insisted further staff work be done before a meeting of all the American members of the CPC was called. Volpe promised in the future to see that Lilienthal received any further calls or memoranda concerning the negotiations immediately.

Procedural questions out of the way, Lilienthal opened the floor to specific objections to the British proposal. Strauss had several. Under the British draft, he charged, the British would be
free to "take up any particular development" (a reference to the development of the commercial and industrial uses of atomic energy), could theoretically use atomic weapons delivered to them by the United States outside of common war plans, and could even violate the principle of civilian control of atomic weapons by giving custody to the British military. AEC Commissioner Henry D. Smyth agreed. Under the British proposals, the British could learn all American atomic secrets, cancel the agreement at the end of three years, and go ahead with the manufacture of atomic weapons on British soil. The three year time period, despite Volpe's reminder that the British "attached no particular significance to the figure," worried Pike and Strauss also. Information once exchanged, Strauss pointed out, could not be recalled. Gordon E. Dean, newest member of the AEC, expressed another concern. If the United States gave classified information useful for developing power reactors to the British and not to private American companies, it might put American industry at a competitive disadvantage in the future. AEC concerns about the British plan were shared by Secretary of Defense Johnson and the JCS. With both sides showing little flexibility, the negotiations stalled. 30

Interestingly, the British never used a hard line on raw materials to apply pressure. Since the Americans were rapidly expanding their program and would do so again in order to develop the hydrogen bomb, this tactic might have been very effective. But it might also have provoked the JCAE into an economic retaliation which the British would have been unable to resist. They, the British, certainly did not want to jeopardize raw material collaboration, the
one sure link in the atomic relationship since 1945. In any event, they made a proposal on December 22, 1949 for an interim raw materials agreement and the Americans accepted. Official approval came on April 25, 1950.31

By mid-January 1950, with the administration preoccupied with internal discussions about the advisability of producing a hydrogen bomb (a decision made by Truman on January 31), resolution of the basic argument was not in sight. Fisher and Arneson, coming to the conclusion already reached by Lilienthal, realized that higher policy direction from the Secretaries of State and Defense and the Chairman of the AEC was needed before talks with Franks to revive the negotiations could be undertaken. The participants on the American side had to be made to understand that although partnership with the British would increase actual atomic explosive power by only one percent, it was important to conclude a new atomic energy agreement in order to bring atomic energy relations into line with the overall status of Anglo-American relations. Some compromise had to be found to reconcile the concerns of both sides. Determined to manufacture a British atomic bomb and maintain a small but intact atomic energy program in the British Isles, the British refused to return to the subordinate position of 1945 and integrate their scientists and resources into the American program. Insistent upon effective control of any joint program, the Americans refused to help the British unless they did. Whether partnership could eventually have been worked out is doubtful. Each side had, at that time, given as much as it believed it could to safeguard its national interests and was unlikely to concede more.
Then, at the end of January 1950, disaster struck. The British arrested Klaus Fuchs, a German-born British scientist and Manhattan Project participant, for passing atomic secrets to the Soviets. Lilienthal told the JCAE some of the information was weapons-related and that as a consequence American security had been seriously damaged.  

Any chance for reviving the stalled negotiations had been dashed. Even after Bevin asked the State Department to play down the case, nothing could be done. The JCAE's worst fears had been realized and the members of the committee would certainly not approve collaboration with the British, and especially not with a "socialist" Labor government badly weakened by Parliamentary elections on February 13, 1950. Attlee was left with only a precarious seven member majority in the House of Commons. Within the administration, too, sentiment for cooperation had vanished. Johnson told the JCAE he believed the United States should go it alone with its program and cut all ties.  

According to Margaret Gowing, the British were not at fault for earlier on failing to detect Fuchs' treachery and end it. They did not, she says, have concrete proof of his guilt. And yet in late 1941, despite reports that he was active in Communist circles in Britain and despite British security officials' reservations, Fuchs obtained clearance to work on the British atomic research project. Wartime necessity, Gowing says, justified utilizing Fuchs services. Likewise, she absolves British officials for sending Fuchs to the United States in 1944 to work on the Manhattan Project—although British officials, she concedes, should have warned General Groves of
their security concerns about Fuchs. He was not, they thought, active politically and they did not know for an absolute fact that he was indeed a Communist. The link between Communists and "ordinary left wing groups," Gowing explains, was quite fuzzy. After the war, Fuchs was able to stay in the British program for the same reason he had gained admittance—he was considered too valuable to lose—and continued giving information to the Soviets up to the spring of 1949. What he told the Soviets, he admitted later, included information as to the make-up of the plutonium bomb tested at Alamagordo, New Mexico in July 1945, general principles of the hydrogen bomb as discussed at Los Alamos, New Mexico, and information on planned British output of plutonium and on American production up until the time he left the United States. This information was undeniably important.

Gowing has also argued that even had there been no Fuchs case, the negotiations between the United States and Britain for a new atomic energy partnership would have failed. Most of the Americans, she says, "apparently desired that the United Kingdom should do precisely nothing in the atomic energy field." This is obvious exaggeration. The Americans had put forward a proposal and although rejected, it had many attractive features. It would have given the British all information necessary for manufacture of an atomic bomb, a small stockpile of bombs under actual British control, and every right to expect future cooperation for other aspects of atomic energy development. Although bombs would have had to have been used only in accordance with common war plans, no responsible British military or civilian leader could contemplate a situation in which the British
would use atomic bombs independently of American use. Had not the Fuchs case occurred, in addition, the two sides could still have come back to the bargaining table, narrowed differences, and possibly have produced an agreement. Certainly the deteriorating world situation in 1950 would have caused the Americans to desire closer strategic ties and the British too would have had reason to compromise. They were still over two years away from detonating a bomb and knew that maintaining an intact atomic energy establishment for the production of both power and bombs would be very costly. They already knew they would never be able to build enough bombs to deter, independently of American strategic forces and weapons, the Soviets. But the Fuchs case, certainly not the reason for the impasse in negotiations in January 1950 but just as certainly the reason for the breaking off of negotiations, prevented resumption of meaningful talks through the balance of the Labor government's time in office. Acheson believed it effectively froze atomic energy relations until the Truman administration left office in January 1953.

Although the United States experienced its own spy scandals in 1950, most notably the Gold and Rosenberg cases, the disaster of the Fuchs case continued to cast a troubled cloud over the administration's yearlong effort to achieve consensus for a new policy for Anglo-American atomic relations. In retrospect, the administration had had to walk a fine line between resolute JCAE opposition to cooperation and insistent British demands for a real partnership. Even after news of the detonation of the Soviet atomic bomb temporarily stilled congressional protests and permitted the administration to open negotiations,
and even after the administration softened its position in late 1949 to satisfy some British objections, American policy-makers could not find sufficient common ground with the British to forge an agreement. In 1950, they were not inclined to, nor would the JCAE let them, try again.


3 Ibid.

4 Lilienthal, Journals, pp. 454-457.

5 Acheson, Present at Creation, pp. 314-315; Memorandum by Executive Secretary to NSC (Souers), Washington, February 10, 1949, S/AE Files, FRUS, 1949, 1:429-430.


8 Memorandum of Conversation by Arneson, Washington, July 25, 1949, S/AE Files; Douglas to Acheson, London, July 13, 1949, 811.646/7-1349, FRUS, 1949, 1:499-500, 475-476; Acheson, Present at Creation, p. 315. Growing congressional fear of Communist infiltration of the government contributed, at this time, to JCAE suspicion that the AEC had to be watched carefully.


Record of Meeting at Blair House, Washington, July 14, 1949; Memorandum of Telephone Conversation by Acheson, Washington, July 18, 1949; McMahon to Acheson, Washington, July 18, 1949, S/AE Files, FRUS, 1949, 1:476-481, 484-489; Acheson, Present at Creation, p. 317; McMahon to Johnson, Washington, July 14, 1949, SCI Files, FRUS, 1949, 1:482-484. On the same day as the Blair House Meeting, McMahon and the JCAE called for a rapid increase in the rate of American atomic bomb production to insure that the United States would have enough bombs to carry out strategic war plans if necessary. But although McMahon told Johnson that he wanted an all-out effort to gain control of critical raw materials, he and most of the JCAE did not go along with the administration's plan of negotiations with the British.

Record of Meeting of JCAE, Washington, July 20, 1949, S/AE Files, FRUS, 1949, 1:490-498; Acheson, Present at Creation, p. 318; Lilienthal, Journals, pp. 548-552; In David E. Lilienthal, Change, Hope, and the Bomb (Princeton, N.J.: Princeton University Press, 1963). pp. 121-122, Lilienthal speculates that had the Senate Foreign Relations Committee headed by Senator Connally had primary responsibility for atomic energy affairs in Congress rather than the JCAE, the course of Anglo-American atomic relations might have been very different in the immediate postwar period.


FRUS, 1949, 1:501-503.

Memorandum of Conversation with the President, August 18, 1949, Official Conversations and Meetings of Dean Acheson (1949-1953), Presidential Documents Series (University Microfilms, 1980), Reel 1, p. 0690; Acheson, Present at Creation, p. 320.


Minutes of Meeting of CPC at Department of State, September 20, 1949, S/AE Files, FRUS, 1949, 1:529-535.


Arneson to British Secretary of CPC (Timothy Marten), Washington, December 12, 1949, S/AE Files, FRUS, 1949, 1:601-603.


CM 351, January 5, 1950, AEC, photocopy.

Ibid.


33 Memorandum of Conversation by Lucius D. Battle, Special Assistant to Secretary of State, Washington, February 13, 1950, 761.5211 Fuchs, K.F.J./2-1350, FRUS, 1950, 1:527-528; Johnson, Memorandum for Secretary of State, March 13, 1950, AEC, in Duncan, "Atomic Energy," pp. 1200-1201; Hewlett, Atomic Shield, pp. 416-417. Despite the Fuchs case, Edward Teller of the American atomic energy program and later known as the "Father of the hydrogen bomb" did not exclude the possibility of resuming cooperation with the British. They had several scientists in their program, in told the JCAE, whose help he would welcome.


VII. OUT OF THE QUESTION

"I suggested to Mr. Attlee that both in the discussions regarding security measures and in any approaches which the British Government might make to us in Washington on this whole subject the matter should be conducted as far as possible through the regular Embassy staff, pointing out that the presence in Washington of such well-known officials as Sir Roger Makins, with their known connection with this subject (atomic energy), always gave rise to embarrassing speculation in the Press. Mr. Attlee and Mr. Bevin agreed that this was most desirable."

--Dean Acheson, May 16, 1950

Although in early 1950, the Anglo-American atomic relationship reached its nadir, the same factors existed which had pushed the British and Americans together in 1949. The Soviets had the atomic bomb and were building a large atomic arsenal. In response to the widespread perception among American leaders that Soviet possession of an atomic capability magnified the Soviet challenge to the West many times and increased the danger of war, policy-makers conducted a complete review of American objectives and programs for national security. In NSC 68, the National Security Council (NSC) depicted American goals and foreign policy as in conflict with Soviet goals and foreign policy and said that although the United States, if the Soviets ever provoked war, had the present atomic capability (mid-April 1950) to deliver a "serious blow against the war-making capacity of the U.S.S.R," the Soviets in four years would attain the capability of launching a
surprise atomic attack serious enough to damage the vital centers of the United States. Since there was no chance of reaching an effective agreement for the international control of atomic energy, the United States must lead the way to a "more rapid building up of the political, economic, and military strength of the free world." This could be accomplished through programs of active aid but also through the establishment of improved political, economic, and military cooperation with the allies. NSC 68, then, was a general statement of the need for collective security against the Soviet threat, but in one critical area at least it called for unilateral American action. The United States should proceed immediately with as great an expansion of its atomic capability as was possible. No mention was made of improving atomic energy cooperation with any other country, including Britain.¹

And yet a JSC review of long-range raw material requirements for the atomic energy program, ordered by President Truman and completed in August 1950, made clear that continued British cooperation for the control and allocation of uranium was an absolute necessity. Their cooperation was especially critical in light of the expansions the United States had undertaken in its atomic energy program and would undertake in October 1950 (and again in January 1952 after the Soviets in October 1951 detonated their second atomic device). The JSC reported in August and September 1950 that in a future war, in order to destroy Soviet atomic capability, conduct a strategic air offensive against the Soviet Union, support ground forces fighting in Western Europe, and maintain a general reserve and postwar stockpile, the United States would have to produce twice as many nuclear weapons by
1956 as estimated in 1949. This would mandate acquiring all available uranium ore through 1958. But it was unlikely the British, with their own atomic program making slow but steady progress, would agree. The possibility existed, then, that Anglo-American competition over raw materials would damage the American strategic position.²

The United States needed cooperation, not competition, with the British in the military field as well. At the beginning of 1950, the Strategic Air Command (SAC) had three bases in Britain but needed seven to accommodate the seven bomber wings to be deployed under wartime plans. In April, therefore, the United States and Britain agreed to improve jointly four more airfields. But it was the Korean War which greatly accelerated the American buildup in Western Europe and created the conditions necessary for the fulfillment of the recommendations of NSC 68. The Truman administration and Congress saw in the North Korean invasion of the South not just a local conflict but a clear harbinger of Communist aggression around the globe. The most obvious and vulnerable target was Western Europe. With the Germans disarmed and only relatively small numbers of American, British, and French troops on occupation duty in Germany, Western Europe lay virtually undefended before the large Soviet armies stationed in Eastern Europe. The only deterrence to attack was the threat of retaliation by American bombers armed with atomic bombs, but the President had yet to authorize transfer of atomic weapons to military custody. Nevertheless, in late June the JCS requested and received permission from the British for the use by SAC of even more British airfields. The larger problem, the problem of beefing up NATO's
conventional strength and preventing a possible drive to the English
Channel by the Red Army, was not addressed until mid-1951 when the
British and Americans began to deploy the first of several divisions
in Germany. Even so, NATO military strength would not be a match for
Soviet power until many years after the rearmament of the Germans,
begun in 1955.\(^3\)

Despite partnership and progress in NATO, the British and
Americans still did not cooperate in 1950 in atomic energy matters.
The major stumbling block to renewal of negotiations for a new atomic
energy pact, everyone understood, was improvement in British security
standards sufficient to convince the Americans that the British could
be trusted to safeguard secrets. The British seemed to be willing to
make improvements. On April 17, 1950, the British members of the CPC
proposed, in view of the Fuchs case, a conference to examine the
comparability of American, British, and Canadian security standards in
the atomic energy field. Held in June, the conference established that
the British needed to make changes, adopt different procedures, and
enforce previously written rules and regulations in order to tighten
up security.\(^4\)

Restoring American confidence in British reliability, the
British knew, would require more than promises. It would require
actually improving security to American satisfaction and then per­s­
uading the Americans over time that the benefits of cooperation and
information exchanges outweighed the liabilities. And yet the British
were rapidly approaching a time of key decision in their program.
By late spring, they were preparing for their first plutonium pile at
Windscale to go critical and British scientists were telling British leaders that they needed certain raw materials from the Americans in order to proceed with the manufacture of an atomic bomb. In order to obtain those materials, the British government would need export licenses approved by the American government. Concerned, Attlee surprised Acheson in mid-May 1950 by dropping in on a meeting with Bevin, Makins, and Lester Pearson at the Foreign Secretary's apartment in London. The problem, he told Acheson, was that politically the United States, Britain, and Canada would be unable to conclude a new atomic energy agreement for about a year. But the British had to decide now whether to go on with the program as planned or make alterations as demanded by the Americans as a necessary precondition for an Anglo-American atomic partnership. In the absence of a positive indication that the chances of a new agreement between the United States and Britain in the near future were good, he would have to order the British program to continue full force, but he understood completely the difficulties this might pose for future cooperation. The state of public opinion in Britain was such that he could not, in the absence of an agreement, assure the Americans he would cancel construction of the third British atomic pile. Did Acheson, he wanted to know, have a solution to the dilemma? Acheson replied that he did not. If the administration decided to renew negotiations during the present congressional session, he said, the news would surely leak to the newspapers and cause problems in the pre-election atmosphere. He thought it a good idea for the June security conference to take place first and then the two governments could consider the next step. Probably
expecting the response Acheson gave, Makins remarked that the British government would have to go forward with its program while attempting to avoid creating future difficulties for Anglo-American atomic relations. The American government could, however, help the British government in the meantime. It could give "sympathetic consideration" to a British request for export licenses for certain materials—the transfer of which would not be in violation of American law but which would require a discretionary decision by the United States government—and said that an American refusal would cause "misunderstanding and difficulty." Acheson replied that he did not know what the British government had in mind but promised the administration would give the British request "sympathetic consideration." He went on to warn that any such request for export licenses should be made through the regular British Embassy staff because the presence of Makins or any other British official associated with atomic energy matters in Washington would cause embarrassing speculation in the press. He was telling them in a polite way that the state of Anglo-American atomic relations was so sensitive that officials of the United States' closest ally had to stay out of the American capital.  

In an attempt to avoid making future difficulties for Anglo-American atomic relations, the British decided in early summer to drop plans for a third atomic pile, though not the low separation diffusion plant which the Americans considered more economical than the others. Maintaining three piles would be too expensive and not needed to develop the bomb. From the American point of view, they realized, three would use up scarce resources. They also may have been
attempting to conciliate the Americans to win approval of their request for export licenses, made officially on June 21, 1950.6

For once, the timing of the British request—made four days before the outbreak of the Korean War plunged Washington into another crisis atmosphere—was right. They asked for 505 tons of slightly enriched uranium 235 and one and one half tons of Kell-F, a special plastic. Gordon E. Dean, new AEC Chairman from July 11 and Senator McMahon's law partner, was inclined to grant the request. At a meeting of the American members of the CPC on September 7, 1950, he listened to Secretary of Defense Johnson discuss the recent (August 8) and urgent doubling of JCS requirements for atomic weapons by 1958 and Johnson's question whether the production of Belgian Congo uranium could be stepped up to meet the increased American need for raw materials. It could be, Dean replied, but only marginally. He then went on to detail an expected raw material shortage through 1951. It would help matters, he suggested, if the United States granted the British request for export licenses and at the same time informed the British government of the higher American requirements for raw materials and the desire of the United States to discuss future allocations at an early date. The majority of the AEC, he said, believed that negotiating on raw materials would once again necessitate discussing the larger problem of overall Anglo-American-Canadian atomic relations. In order for the United States to persuade the British to transfer their plutonium output from their piles to the American program, the United States would probably have to offer a stockpile of atomic weapons for British use. He asked General Omar Bradley,
Chairman of the JCS, for a military opinion of such an arrangement. Bradley responded that strictly from a military point of view complete cooperation with the British would be highly desirable. He personally liked the idea of exchanging British plutonium for American atomic weapons but thought that the British would insist on production of at least a token number of bombs by their own efforts. Dean nodded in agreement. The British, he said, had already requested use of the American Pacific testing site at Eniwetok Atoll to detonate their first atomic device, but a continuing British program would be a waste of plutonium. Their best scientists too could make more of a contribution in the American program. Impatient that the American and British programs could be allowed to proceed independently and without proper coordination of effort and resources, and practical enough to know Congress would never consider an amendment to the McMahon Act until after the mid-term election and the start of the new session in January 1951, Dean proposed that the administration attempt to reach a quick consensus for a new negotiating position with the British and open discussions in a month to six weeks with an eye toward concluding an informal agreement. Always in favor of closer atomic ties with the British, Acheson swiftly agreed. But he suggested that the Department of Defense (the new name of the National Military Establishment after Congress passed the National Security Act of 1949), which had the "greatest interest" in military security, give its recommendations first followed by the AEC and State Department. This suggestion was adopted.7
The State and Defense Departments (now headed by George Marshall who had replaced Johnson as Secretary of Defense on September 12, 1950 and by Robert Lovett as his Under Secretary) had no objection to approval of the transfer of slightly enriched uranium 235 and Kell-F to the British. The transfer went through. Consensus within the administration on a new negotiating position for atomic energy discussions with the British, however, was not so easily achieved. Another British spy scandal, involving the defection of Bruno Pontecorvo, an Italian-born British scientist, to the Soviets in October 1950 killed any chance for an early revival of discussions for improved cooperation. The chill in Anglo-American atomic relations grew colder.8


2 Poole, History of JCS, Vol. IV, pp. 144-145.

3 Ibid., pp. 168-170.


VIII. RUNNING IN PLACE

"Is the Prime Minister aware of the recent statement by the Leader of the Opposition that this country has not the secret of the atomic bomb? If this is so, is this equal partnership (with the United States)?"

—Emrys Hughes, House of Commons, January 30, 1951

If the British came into 1951 expecting a new round of negotiations, they were to be disappointed. The political atmosphere in Washington was hostile. Precipitated by the dangerous turn the Korean War had taken with the intervention of Communist Chinese troops on the side of the North Koreans, and sharpened into focus by a nationwide address given by former President Herbert Hoover on December 20, 1950, the United States Congress began an extraordinary debate lasting from January through March 1951 on the wisdom of Truman administration foreign policy, especially the decision to send several divisions of combat troops to Europe. Hoover’s speech voiced many of the doubts isolationists felt about collective security. The Korean War was a defeat for the United Nations concept, he charged, the Europeans were so badly divided that the United States should not station troops there to save them, and the British were so untrustworthy that they were "flirting with appeasement of the Communist bloc." Instead of trying to help Europe, therefore, the United States
should arm its air and naval forces "to the teeth," exert control over the Atlantic and Pacific Oceans, and make impossible invasion of the Western Hemisphere. Safe behind the walls of this "Fortress America," the United States could cut defense costs and balance the budget. Many Republicans and others in Congress sympathetic to anti-interventionist arguments agreed. Although without sufficient votes in the end to prevent the administration from carrying out its plan to build up American defense ties with NATO and increase American troop strength in Europe, they did perpetuate the feeling within the administration that Congress was not yet ready to smile on efforts to improve atomic ties with the British.¹

The British had two other problems. Strong doubts about British security—and about British willingness to improve security—persisted in American minds and equally important, the British government came under crippling attack at home. Blaming the Laborites for the failing economy and diminishing British influence around the world, Winston Churchill applied intense political pressure until he defeated Attlee in the general election in October 1951. Critically weakened, the Labor government failed in all attempts to negotiate Anglo-American atomic questions.

Churchill fired the opening salvos in a bitterly partisan campaign on January 30, 1951 by scoring the government's atomic energy policies in the House of Commons. Could the Prime Minister, he asked, give assurances that the relationship of equal partnership in atomic energy (which, he asserted, had been in place when he left office in August 1945) between the United States, Britain, and Canada still
existed? It did, the Prime Minister replied, though modified now for certain purposes. Churchill and his followers were skeptical. They challenged the government that the partnership could not be an equal one so long as Britain did not have the secret of the atomic bomb. Churchill complained that the wartime "treaty" of cooperation, a reference to the Quebec Agreement, had been revoked and that therefore there was no further reason for secrecy as to its provisions. The government should make it public. To this demand, Attlee responded that Churchill had his facts wrong. There never was any treaty, just an agreement between the two governments, and that agreement had been changed and altered and new agreements made. The old agreement was still being kept secret because the American government wanted it kept secret, but he would ask the Americans if they would be willing to publish.2

Anxious to avoid embarrassment, the government did request the Americans to agree to publication of the Quebec Agreement, but the State Department returned a negative answer. Because the JCS were at that time (January 31, 1951) presenting a new proposal to exchange atomic bombs for British plutonium—and to effect the exchange without asking for new legislation—the State Department feared arousing Congress over less important issues. The British government would have been well satisfied to let the matter rest there, but Churchill turned up the heat. He wrote personally to President Truman on February 12, 1951 requesting publication of the Quebec Agreement and implied a threat. The United States had important SAC bases in East Anglia in Britain, he said, bases from which American bombers would
fly in wartime to attack the Soviet Union. But the British government would have to approve atomic bombs on those bases and such an approval would be far easier for it to give if the Americans agreed to publish the Quebec Agreement. The implication of his statement was that if the Americans balked at publishing the wartime agreement, he, when he became again Prime Minister, would give the Americans trouble over use of British bases for bombing missions.3

In late March, Truman finally got around to turning down Churchill's request, stating when he did that American air base rights in East Anglia were "mutually satisfactory." Meanwhile, Churchill and his supporters were launching another stern attack in Parliament. They demanded a straightforward answer to the question whether Britain had an equal partnership on atomic energy matters with the Americans and also whether Britain had a right to be consulted on the use of the atomic bomb. Britain had earned the right, they asserted, because of its wartime contributions and present position of great risk as the "aircraft carrier of the Western world," and indeed had had the right of consultation during the war. The government, in addition, was not doing enough to chide the Americans for their unfair atomic energy legislation. True, Britain had had damaging spy cases, but the United States had had more. Responding for the government, Kenneth Younger, Minister of State, revealed that the United States still refused to allow publication of the wartime agreement. He was forced to admit that because of the McMahon Act there existed no formal agreement at present for cooperation with the United States and Canada. Certain areas of cooperation did continue on an ad hoc basis, he hastened to
assure, and the British government hoped for more collaboration in the near future. 4

Meanwhile, the JCS proposal of January 31, 1951 for a new agreement between the United States and Britain received consideration within the administration. Emphasizing maximum practicable (my italics) security for classified atomic energy information and safe location of weapons production facilities, stockpiles of atomic weapons, and delivery vehicles (bombers), the JCS and Department of Defense (DOD) wanted a new push for Anglo-American atomic cooperation. Such cooperation would provide maximum exploitation of the best non-Communist uranium sources, increase raw material supplies to the United States, and insure (by an exchange of British plutonium for either American uranium 235 or finished composite atomic weapons) that raw materials were converted as quickly and efficiently as possible into weapons. From the purely military point of view, it would facilitate the arming of the British with efficient atomic weapons in numbers commensurate with British plutonium production, maximize Anglo-American atomic capability in the event of war by coordination beforehand of British and American plans, and maximize also the capability of the United States, Britain, and Canada to coordinate active and passive defense measures against a possible Soviet atomic attack. It fit in, moreover, with plans to beef up NATO defenses in Europe. 5

Solidly in favor of the JCS plan was AEC Chairman Dean. "Vexing" problems had troubled the AEC, he asserted in a May 18, 1951 memorandum, especially in the area of supplying American atomic plants with sufficient supplies of raw materials. Although allocation for
1950 was being made on an ad hoc basis along the lines of the British compromise offer of December 22, 1949, as of yet no allocation agreement for 1951 existed. The United States badly needed a long-term agreement to stabilize its raw material outlook for the future. It also needed full cooperation with the British and Canadians to increase the collective strength and avoid wasteful duplication of effort. A new agreement for full cooperation would not only provide the United States with adequate supplies of raw materials, but would make possible transfers of British scientists and technicians into the American program to relieve the personnel strains caused by the expansion ordered by the President and would facilitate the review of uniform security standards to reduce leaks of critical information. Dean's proposal stopped short of providing for a full and complete exchange of information. Although there would be broad cooperation in the field of basic scientific research and complete exchange of intelligence information, the British would need only "sufficient" information to use the atomic weapons given them by the United States, "particularly in connection with the carriers (bombers) and crews." Even so, Dean acknowledged, the approval of Congress would be needed for the new agreement. Ideally, a new amendment to the McMahon Act would be phrased so as to give authority to the President to determine which cases for cooperation promoted American national security. Dean's proposal had another very controversial aspect. It would leave the British without a completely intact atomic energy establishment in the British Isles and without the right to produce their own atomic bombs.
Dean's plan was in trouble by June. Yet another British spy case placed British security in the worst possible light. The British government announced on June 7, 1951 that Donald C. Maclean, head of the American Department in the British Foreign Office and member of the CPC from January 1947 to August 1948, had disappeared and was suspected (later confirmed) of having defected to the Soviets. Although the information he possessed, the State Department informed Senator McMahon, was far less valuable than that which Fuchs had stolen, the JCAE nevertheless had one more confirmation of British security incompetence.  

On the face of things, British security standards in their atomic energy program did appear less stringent than American. The British used a personnel screening system called the "nothing known against" system wherein the investigators merely checked if a person had any black mark on his record. In the case of Klaus Fuchs, for example, the British Secret Service suspected he had had contacts with left-wing, perhaps Communist, groups but did not know for a fact that he maintained an active association with Communists. The Americans, on the other hand, employed a double inquiry or "positive vetting" system wherein investigators scrutinized loyalty and political views. Had the British adopted the positive vetting system after the war, Fuchs political viewpoint and contacts might have made him, despite his value as a scientist, too great a security risk. Although the differences between American and British approaches were discussed at the security conference in June 1950 and again at a second conference in June 1951, and although the Americans pressured the British to
adopt the positive vetting system, the Labor government took no steps to tighten security in this manner before leaving office in October 1951.\(^8\)

The final blow to Dean's plan came in September 1951. The JCS changed their minds about exchanging American atomic weapons for British plutonium. The problem, General Bradley wrote, was that the JCS and DOD had to balance the competing interests of expanded cooperation with the British to acquire new scientific and technical information and gain access to British raw materials stockpiles with maintaining the highest level of secrecy to prevent leaks of information to the Soviets. Once the AEC informed them of just how much technical weapons information the United States would have to reveal to show the British how to use American atomic weapons, they decided that the danger of leaks of vital weapons information was too high. They were searching, instead, for a way to separate weapons information from scientific and non-weapons technical information in order to permit exchanges with the British. But until the time a satisfactory solution was discovered, they favored handling all atomic weapons matters through the DOD to insure maximum security. In any event, they felt that the United States should transfer no information until the British had progressed to the point in their own program where they were producing enough fissionable material to fabricate a considerable number of atomic weapons, or until there was a better chance that NATO could successfully defend Western Europe. Strengthened NATO forces might improve the security of the British Isles as a strategic location for atomic energy facilities, raw material stockpiles, and stockpiles
of atomic bombs. The JCS also had another reason to back away from its January 31, 1951 proposal and Dean's more ambitious plan. They were adamantly opposed to an administration sponsored amendment to the McMahon Act. The members of the JCAE, they felt, were far too critical of proposals for better Anglo-American atomic ties and far too worried that leaks of secret atomic information would damage the American military posture. The administration, therefore, should wait for the JCAE to propose new legislation and be content to obtain information from the British and other Western Europeans by means other than a direct exchange. Without JCS support, Dean's proposal for a new agreement to cooperate with the British on atomic energy matters faltered. 9

JCS and DOD opposition also had a negative impact on an official British request for use of an American test site for the detonation of the first British atomic device in 1952. Under pressure from the British military to get on with the testing of the device, but also concerned to achieve a successful test at the earliest possible date for domestic political reasons, the British sent their request through military channels. They then backed it up by a visit by Ambassador Franks to Acheson on August 2, 1951. Four days later, they delivered a paper describing what they wanted to accomplish in their test. Franks told Acheson that because of the importance to Britain of her navy and naval facilities (harbors, docks, and shore installations), the British government wanted to set off a shallow-water burst. This would test the effect of an atomic explosion on ships and port facilities. Although they had already selected an alternative site in Australia, they preferred using the American Pacific testing site to
keep down costs. At first, it seemed that the Americans were inclined to grant the British request. Under Secretary of Defense Lovett wrote Acheson that the JCS and DOD had no objections so long as the United States was not required to reveal weapons information to help the British test their device. Dean too favored letting the British use the American site. It was in the national interest and could be done without disclosing highly sensitive atomic weapons information. But because the United States would have to reveal some restricted data, he took the opportunity of reiterating his request for new legislation to keep the exchange within the law.  

At a meeting of the American members of the CPC on August 24, 1951, Acheson asked Dean if he had consulted with the JCAE to solicit the committee members' opinions of the British request. Dean replied that he had met with McMahon but not with the full committee. He also conceded that the testing of the British device would require the cooperation of approximately 50 British and 50 American technicians and that some weapons information would necessarily be exchanged. Because the scientists and technicians would undoubtedly talk freely, even more would probably be revealed. Immediately, Lovett withdrew DOD support. He opposed revealing weapons information and could not agree to any attempt to pass new legislation because of congressional attitudes toward security in general and British defections to the Communists in particular. Proposing an amendment to the McMahon Act, he said, would just stir up the JCAE and ultimately fail. Agreeing, Robert LeBaron, Deputy to the Secretary of Defense on Atomic Energy Matters, gave another reason for rejecting the British request. The
British, he asserted, namely Portal and Penney had accepted the DOD's stipulation that the United States not be required to disclose weapons information during the test and that British scientists and technicians play only a minor role. But the British had misrepresented their request in order to get the administration to give it formal consideration. Instead of a one-way exchange with the United States setting off the device with only a few British personnel present, the United States was being asked to agree to a full-scale joint exercise and complete information exchange. No matter if the British had in their paper of August 6, 1951 corrected the misconception given earlier, the DOD opposed granting the British request. He and Lovett took the stand that British security problems and the danger of leaks through the British program to the Soviets precluded a test under the conditions proposed. The British would have to change them. This they might be willing to do since (in their opinion) the British government only wanted an atomic test for political and morale reasons. It was decided, then, that the administration would inform the British the United States could not agree to the test as set forth in the August 6 paper but would prepare modifications of the proposals so that a test could be conducted within the limits of American law.11

Very disappointed by the American decision, British Minister in the United States Sir Christopher E. Steel suggested on August 27, 1951 that the British government might be willing to forego the shallow water burst but would have a hard time swallowing a significant reduction in the number of British technicians involved in the test. That would permit only Dr. Penney and a few other individuals to participate
and reduce the value of the exercise for the British. Lovett and LeBaron did not budge. Instead, they tried to persuade Steel that the British could learn what they wanted to know by putting the testing of the British device in American hands. If Attlee and his Cabinet agreed, detonation of the bomb could take place at the Nevada testing site.12

Despite the fact that the counterproposal, approved by the President on September 24, 1951 and tentatively backed by Senator McMahon, would have severely limited British participation in their own test and altered the kind of test they wanted, the American estimation of the British position was such that administration officials believed the British would swallow their pride and accept. They were wrong. In late September, Dr. Penney came to Washington to discuss the American counterproposal and found it unacceptable. Attempts to narrow differences did not satisfy either side and there the matter rested until after the general election and Churchill's return to power. Ultimately, Churchill insisted on full cooperation and reciprocity in the conduct of the test or nothing at all. The consequence was that the British set off a shallow water atomic burst without American assistance at Monte Bello Island in Australia on October 2, 1952.13

Differences of opinion expressed by Gordon Dean and the AEC on the one hand and Lovett, LeBaron, Bradley, and the DOD on the other toward how far to go and what steps to take to achieve Anglo-American cooperation on atomic energy matters were founded in the first instance on solid and substantial policy concerns. Dean favored moving forward
with new legislation because, like Acheson, he wanted to see overall Anglo-American relations put on a better footing. He also, quite naturally, wanted to secure British cooperation for the long-term control and allocation of raw materials and was therefore willing to run the risk of some security loss in information exchanges with the British in order to guarantee those raw materials. With the backing of all interested parties within the administration, he was confident he could convince his friend Senator McMahon and the other members of the JCAE to sponsor an amendment to the McMahon Act to remove the legal impediments to cooperation and information exchanges. The DOD looked at the problem differently. Lovett, LeBaron, and Bradley also worried about the raw material problem but put more emphasis on the necessity of maintaining maximum security for American atomic weapons secrets. Because British security problems might result in leaks to the Soviets, they would oppose any transfer of weapons information to the British. Even should the British bring their security system up to American standards and satisfy them that exchanged information would not fall into the wrong hands, they still opposed seeking new legislation to permit exchanges from Congress. The JCAE, it seemed certain, would raise a disruptive ruckus, turn back all attempts to improve atomic cooperation, and strain Anglo-American relations at a time when the United States, because of the hot war in Korea and cold war with the Soviets, needed the close political, economic, and military cooperation of its most important ally. Until the British actually became an atomic power by their own efforts, the United States should let matters be.
Another, more bureaucratic reason was involved in the differences of opinion between the AEC and DOD. As early as July 29, 1947, the AEC and JCS had met to discuss whether the military should have a representative sitting on the AEC, whether the military should control all fissionable material after production, whether military personnel should participate in the design and testing of atomic weapons, and whether the military should control all information related to the use of atomic weapons. Lilienthal and the other commissioners opposed these changes (as well as a proposal in November 1947 by the MLC to secure actual custody of completed atomic weapons for the armed forces) for two reasons—they did not believe the military had the technical expertise to care for atomic weapons, especially before the Mark 4, the first production model weapon, was tested at Eniwetok in the Pacific in the spring of 1948, and they believed that surrender of AEC control of fissionable material and/or atomic weapons meant an end to the civilian control required by the Atomic Energy Act of 1946. The JCS had a different concern. After international tensions rose sharply in March 1948 over the Communist coup in Czechoslovakia, General Kenneth D. Nichols, head of the Armed Forces Special Weapons Project (from March 1948), and the JCS pressed for control of part of the atomic stockpile to meet the needs of the military to react quickly in the event of a crisis leading to war with the Soviets. Nichols and others did not buy the argument that the military could not meet the technical challenge of handling atomic weapons. Military teams at Sandia base in New Mexico, they pointed out, were already involved in the disassembly, repair, and assembly of bombs to make sure they were
ready to use in battle. They should be permitted to assume complete responsibility while still allowing scientists access to the stockpile. More importantly, the military must have "direct and exclusive control" for strategic planning purposes and to prepare for tactical use. In the face of JCS pressure and in the context of an increasingly dangerous international situation, Lilienthal and the AEC commissioners were willing to work out plans for an emergency transfer of atomic weapons to the military. They were not willing to let the military have custody of atomic bombs and treat them as if they were no different than other weapons. The showdown came in July 1948. When the West's further efforts to rehabilitate West Germany caused the Soviets to step up interference in traffic going between Berlin and West Germany, Nichols pushed for transfer of the atomic stockpile from civilian to military control. The AEC refused to cooperate. Finally on July 21, 1948—three days before the beginning of the Berlin blockade—the President had to step in to resolve the controversy. He issued a public statement that civilian control would be maintained. With a transfer of custody definitely out of the question, the military directed their efforts toward working out with the AEC a satisfactory procedure for emergency transfer of atomic weapons.14

Truman's decision had settled the matter, but only temporarily. Immediately after the start of the Korean War in June 1950, the JCS requested, and received the President's approval, for a transfer of non-nuclear components of atomic weapons to the military for shipment to American bases in Britain and the Pacific area. Because of the successful Soviet detonation of an atomic bomb in August 1949
and their anticipated steady progress toward building up a stockpile of their own weapons (some of which would most probably be assigned to Soviet bombers), improved American readiness was an absolute necessity. Quite clearly, actual military control of atomic weapons would be required at some point to meet the Soviet threat. That point was reached less than a year later when on April 6, 1951 Truman decided to approve a JCS request for the transfer of a limited number of completed atomic weapons. Although the President assured AEC Chairman Dean that he would adhere to a procedure agreed to in the fall of 1950 providing for Presidential consultation with the Secretaries of State and Defense and the Chairman of the AEC once the JCS recommended using the atomic bomb in a given situation or crisis, Dean realized that AEC responsibility for the transferred weapons had ended. The JCS did not want the State Department or AEC interposing themselves between the JCS and the President in this matter. And in an emergency, the President would talk first to the JCS and to others after and perhaps not at all if time was a factor.\(^{15}\)

General Bradley revealed that Dean was correct about JCS desires in his memorandum of September 7, 1951 (when he backed away from the JCS January 31, 1951 proposal to exchange American atomic weapons for British plutonium). In that memorandum, he suggested that all atomic weapons matters be handled through military channels to improve security. But it was the Air Force which was especially interested in wresting control of atomic weapons away from the civilian agency. Primarily responsible for attacking Soviet targets in the event of war, its appetite had been whetted in May 1951 when it took
control of its first atomic weapons. Subsequently, the growing atomic arsenal, the fact of Soviet atomic capability, and the need to bring readiness to employ atomic weapons to an even higher point made military leaders press their case more and more vigorously in the 1950's.16

Under these conditions, tension between the AEC and DOD was almost inevitable and occurred over matters upon which the two agencies should have been in substantial agreement. One such example was an amendment to the McMahon Act sought by Dean for the purpose of giving the Canadians information on new technology for the more efficient production of fissionable material. The new technology would permit them to process in a better fashion deposits of uranium ore recently discovered in Canada's Athabaska region. Most of that uranium, Dean argued before the members of the JCAE, would ultimately go to the United States. The JCAE, of course, had been pressing the administration to secure more raw materials to permit further expansion of the atomic energy program and were quite willing, in their desire for North American self-sufficiency, or at least freedom from constraint by British joint control, to hurry Dean's amendment through committee and have the full Congress approve it on October 30, 1951. The amendment was worded to permit the exchange of non-weapons information so long as the exchange substantially promoted the common defense and security, the information was never passed on to a third party, the recipient country followed adequate security standards to protect the exchanged information, and the JCAE got 30 days prior notice of the exchange. But the speed with which the amendment passed through the
JCAE and Congress, and the failure of Dean to consult extensively with the DOD so that the JCS could conduct a review of the security aspects of the amendment caused consternation in military circles. Military officials, new Secretary of Defense Lovett (from September 17, 1951) and Under Secretary of Defense William C. Foster believed, should have had a major say in debating the change in the law. Foster registered DOD objections with Dean a few days after Congress gave the amendment its final approval.¹⁷

The struggle between the military and AEC for control of atomic weapons and the atomic energy program had not been finally decided, as Congress had intended, by passage of the Atomic Energy Act of 1946. It continued through the immediate postwar years and had some effect on the conduct of atomic relations with the British. As atomic energy matters grew more complex and the nuclear challenge of the Soviets became more dangerous, the struggle between the DOD and AEC for control of American atomic weapons would be renewed with further consequences for Anglo-American atomic relations. Together with British security problems and JCAE opposition to cooperation, DOD-AEC conflict had already prevented measures to revive atomic ties with the British even in areas like joint testing. Joint testing of British atomic devices would at least have fulfilled the reciprocity requirement demanded by the JCAE. Real progress, then, in reviving atomic relations depended both on active British measures to convince the Americans they were worthy partners in the atomic energy field and on efforts within the administration to smooth over bureaucratic differences and reforge a consensus in favor of improved cooperation.
Arneson to LeBaron, Washington, February 9, 1951; Churchill to Truman, February 12, 1951, G/PM Files, Lot 68D349, FRUS, 1951, 1:690-694. As will be discussed in the next chapter, the Attlee government itself was pressing the Americans to concede Britain the right of consultation on the use of the atomic bomb by American bombers flying from British bases.


Assistant Secretary of State for Congressional Relations (McFall) to McMahon, Washington, August 13, 1951, S/AE Files, FRUS, 1951, 1:752-755.


Informal Statement by Department of Defense, Washington, undated; Memorandum by Lovett to Acheson, Washington, October 12, 1951, G/PM Files, Lot 68D349, FRUS, 1951, 1:769-772, 776-777.


Memorandum of Meeting by CPC at Department of State, August 27, 1951; Draft Memorandum by Arneson, Washington, September 10, 1951, S/AE Files, FRUS, 1951, 1:763-769.


IX. WHO SHALL BE CONSULTED ON THE USE OF ATOMIC BOMBS?

"If it (a decision to use the atomic bomb) has to be made for the welfare of the United States and if the democracies of the world are at stake, I would not hesitate to make it again.""--Harry S. Truman, April 6, 1949

The other important issue in Anglo-American atomic relations in 1951 was the question of British right of consultation and/or veto with regard to possible American use of atomic bombs. In the Modus Vivendi of January 7, 1948, the British had given up all claim to this right, but it sprang to life again because of a statement by President Truman on November 30, 1950. Referring to the Korean War and the measures the United States might take to bring the war to a successful conclusion (especially in light of the recent Chinese Communist intervention on the side of the North Koreans), the President warned that the administration had under "active consideration" use of the atomic bomb. Although he had not actually authorized use of the bomb, the effect of his statement in Western Europe and Britain was to cause great alarm. Attlee told the House of Commons the next day that the British government would expect to be consulted before the atomic bomb was used by the United States in Korea and that "in any case Her Majesty's Government consider that a decision of such grave importance
could not be taken on behalf of the United Nations without the fullest prior consultation with those member States who are participating in the international police action."^1

Truly concerned that the President and his advisors might take some rash action in Korea, Attlee promptly flew off to Washington to discuss the matter with Truman, bringing along with him Sir William Slim, Chief of the Imperial General Staff, Tedder, the Chief of Staff, and Far Eastern experts from the Foreign Office. Suspicions of Attlee's intentions abounded in Congress. Twenty-four Republican Senators introduced, but failed to pass, a resolution requiring ratification by the Senate of any agreement made by the President and Prime Minister. His reception by Truman and the administration was somewhat friendlier. Still, he made little headway in his talks with administration officials until the last meeting on December 8, 1950. Speaking privately to the President in his office, he succeeded in convincing him to agree to a joint statement conceding Britain the right of consultation on the use of the atomic bomb. The President's advisors were stunned. Lovett whispered to Acheson that he, Acheson, had better speak up before the communique was drafted and convince the President to reverse himself. Acheson tried. Assembling the President, Prime Minister, and Ambassador Franks away from the others, he reminded Truman of his numerous public statements promising to make no commitment which would limit his duty and power under the law to authorize if necessary the use of atomic bombs. A change in that position now would cause an uproar in Congress and the public. His arguments had the intended effect. Everyone reluctantly agreed that the right of
consultation on the use of the atomic bomb had to be deleted from the communiqué. In the end, the most Truman could and would promise was to keep the Prime Minister informed at all times of developments which might bring about a change in the world situation.2

It is highly unlikely that Truman really intended to give Attlee and the British a right of consultation on the use of the atomic bomb. Attlee's principal motive for rushing to Washington, Franks had informed Acheson prior to the visit, was to secure his domestic political position and reduce public anxiety about recent events. It was probably by emphasizing this side of the question—the political impact—that Attlee convinced Truman. One of two accounts Acheson has given of the conference corroborates this opinion. In any event, Attlee was able to return home and assert that he had received from Truman "assurances which I consider to be perfectly satisfactory" about American caution in the use of atomic bombs in a crisis.3

Once the question of consultation on the use of the atomic bomb was broached, it was natural for the British to pursue the matter and seek more definite, if more private, assurances from the Americans. After all, the Americans did have bombers armed with atomic weapons stationed at British bases and no formal procedure existed for guaranteeing that those bombers would not be used in a way British officials considered injurious to British interests. Attlee and Bevin, in addition, realized that the government was vulnerable to political attack by Winston Churchill and the Conservatives on the whole matter of atomic relations with the Americans. They did not want to be embarrassed by questions about consultation on the use of the bomb.
The Labor government, the Conservatives would charge if the facts became known, was responsible for giving up the right of consultation in the Modus Vivendi and it would not win them any votes to argue—probably quite correctly—that the Americans would not consult anyway on the use of the atomic bomb.

Anxious then to preempt a Churchillian attack on the issue, Bevin reopened the matter in mid-January 1951. He asserted in a talk with American Ambassador to Britain Lewis W. Douglas that the British had a right of consultation about the use of American planes flying from British bases, especially with respect to planes taking part in an American strategic offensive. The British government, therefore, wanted formal briefings for British military leaders on American strategic air plans. The Americans were reluctant to cooperate. For one thing, Congress, locked in a "great debate" which would continue through March on American foreign policy and the wisdom of American military commitments to Europe, was in no mood to allow concessions with regard to the atomic bomb. For another, the British wanted far too much. General Bradley told Lovett, Ambassador-At-Large Philip C. Jessup, and Deputy Under Secretary of State for Political Affairs H. Freeman Matthews on January 15 that he had already talked to Tedder and members of the British Military Mission in Washington and that they had asked for details from the strategic air plans which would violate American security requirements. He had refused to divulge such details. His only concession had been to agree that the United States would communicate the requested information should a war with the Soviets ever occur and the United States need to use British bases. A
subsequent meeting was held between the American Chiefs of Staff and Marshal of the Royal Air Force Sir James Slessor, Chief of the British Air Staff, and British officials indicated that the two meetings had satisfied Tedder and Slessor that arrangements for consultation between British and American military leaders in the event of a crisis had been made.4

The British had good reason to inquire about American plans to use British air bases. According to REAPER, the JCS' "Joint Outline War Plan for a War Beginning on July 1, 1954," strategic bombers based in Britain were absolutely essential for the success of any wartime attack on the Soviets. If war occurred, planes flying from those bases would approach the Soviet Union along the edge of the Mediterranean Sea and deliver 52 atomic bombs in the industrial regions of the Volga and Donets Basin. The Soviets, should the plan ever be carried out, would undoubtedly retaliate against the bases—and Britain.5

Despite the plain language of the December 8, 1950 public statement and January 1951 discussions, the British told the Canadians they had received from the Americans a firm commitment for consultation on the use of atomic weapons. This was revealed by Franks to Hume Wrong, the Canadian Ambassador to the United States. Wrong then informed the Americans and added a word of his own. He told Arneson that his government too was concerned about storage of atomic weapons components at the Goose Bay air base in Canada, overflights of Canada by Strategic Air Command planes carrying atomic weapons or parts, and possible atomic bomber strikes flying out of Goose Bay. Canadian officials were particularly worried about this last point—fearful the
Americans would be too quick to act in a crisis and might therefore increase the danger of war—and refused to give prior consent for strike operations and overflights by SAC. The United States worked to set up a prior notification procedure to secure quick approval for strike operations, but negotiations continued through the end of the year without resolution of the basic Canadian concern.\(^6\)

In February 1951, the British pressed the Americans again on the consultation issue. They attempted in a working paper dated February 22, 1951 to determine which Soviet actions or other forms of Communist aggression would trigger war and necessitate the use of atomic weapons by the United States supported by Britain. Their ultimate goal was to conclude a formal agreement in order to define very clearly under what circumstances the United States could use British bases to launch atomic strikes. Preparing to respond, the Policy Planning Staff drew up its own paper in May. The United States, it declared, should only enter into a global war if its vital security interests were threatened and should maintain freedom of action with regard to use of the atomic bomb. The power to make that decision was the President's alone, after consultation with the Congress where appropriate, and could not be abridged by commitment to any foreign government. The United States had committed to inform the British and Canadians of developments which might necessitate use of atomic weapons, but that was all. With regard to conditions under which the President should decide to use the atomic bomb, the PPS believed that only a general war with the Soviets would necessitate that decision because once the United States used atomic weapons, the Soviets would
retaliate against the United States and allied countries where the United States had air bases and the result would be extensive civilian casualties. This must be avoided at all costs. The United States must maintain a superior stockpile of atomic weapons, retain base rights in key foreign countries, and deploy strong bomber forces at those bases to deter the Soviets from provoking war. The President, in addition, should make periodic statements warning the Soviets against aggression, though he should not deliver an ultimatum of any kind in a crisis since that would infringe on Congress's right to declare war. In discussing what kinds of specific situations might cause a possible East-West clash, the PPS made an important distinction. If a conflict could be kept localized—an attack on Yugoslavia by a Soviet satellite, for example, or even a border attack on a North Atlantic Treaty signatory by the Soviets themselves—it advised against use of atomic weapons. But if the Soviets launched a general offensive with or without cooperation of its satellites to seize areas critical to the United States, the United States should respond with atomic weapons. This situation could occur if the Soviets and their satellites invaded simultaneously Yugoslavia, Greece, and Turkey. 7

In early August 1951, the State Department and Joint Strategic Survey Committee (JSSC) coordinated positions, setting forth scenarios which would precipitate war and general guidelines for use of atomic weapons. The United States would accept war without hesitation if the Soviets attacked any part of the United States (including Alaska) or Canada and would probably go to war if the Soviets, with or without their satellites, invaded NATO territory, launched an overt
attack by major Soviet military units against U.N. forces in Korea, or attacked American overseas possessions and/or bases. The United States might also accept war if the Soviets made a determined attack against American forces in West Germany (including Berlin), the American zone of occupation in Austria (including Vienna), Trieste, and/or Japan, or in the unlikely event of an attack on the Philippines, Australia, or New Zealand. Generally speaking, the Western powers were not yet up to strength so the United States and its allies should try to avoid general war if at all possible and keep dangerous conflicts in areas like Yugoslavia, Germany, and Turkey localized. The United States did not consider general war inevitable. On the question of use of atomic weapons, the State Department and JSSC agreed that atomic weapons should be employed in the event of general war and possibly also in localized conflict if American forces were directly involved. If a war occurred within the next two years, the United States should implement emergency war plans for a strategic offensive in Eurasia and strategic defensive in the Far East, the former strategy necessitating an immediate air offensive using atomic and conventional bombs against the Soviet Union and its military forces. Cooperation of allies was badly needed to implement these emergency war plans and bomber strikes from overseas bases, but the United States would not permit any veto or encumbrance of its right to use atomic weapons.  

On August 6, 1951, the day the British grimly announced the abrogation of the Anglo-Egyptian treaty of 1936, the JCS sat down with State Department representatives to talk about how to approach
discussions with the British. Present were General Bradley, Army Chief of Staff J. Lawton Collins, Air Force Chief of Staff Hoyt S. Vandenberg, Vice Chief of Naval Operations Admiral Lynde D. McCormick, Secretary of State Acheson, Matthews, Arneson, Deputy Director of the PPS John H. Ferguson, and Secretary of Defense Lovett.

Concerned that politico-military talks would lead to implied agreement or commitment, Bradley wanted to limit Anglo-American discussions to meetings between the British and American Chiefs. He suspected that British political leaders were trying to tie the question of the use of the atomic bomb to world developments that might bring on a general war. Should such developments take place, the United States would then be bound to consult on the use of the bomb. He wanted to avoid that situation. Acheson, while agreeing this was what the British intended, nevertheless asserted that a genuine connection between general war and the use of the atomic bomb did in fact exist and that the United States should at least discuss the subject in order to secure British cooperation in a future war. Lovett refused to accept his advice. There were two separate questions, he said—conditions precipitating war, and the use of the bomb—and he did not want the two linked. General Collins remarked that this was correct because the United States might at some time want to use the atomic bomb tactically (that is, in some local conflict involving American forces) and that discussions with the British should be limited to what situations would lead to war. An even tougher, more distrustful line was taken by General Vandenberg. He was suspicious of the British because of the way they had almost tricked Truman into granting the
right of consultation in December 1950, because of Slessor's and Air Marshal Sir William Elliott's attempts to pin the American Chiefs down in the January discussions, and because of their February 22, 1951 paper presented to the State Department (not the military). Because he believed they were after an implied commitment on the part of the United States to consult on the use of the atomic bomb, he insisted military conversations between the British and American Chiefs take place first to find out just what the British were really after. Then, if it was safe, politico-military talks could occur. The State-JSSC paper, therefore, could be discarded for the present. Acheson tried to find a middle position. The British, he suggested, had a right to know what the JCS and the President were thinking on the questions of what situations would precipitate war and when the United States would use atomic weapons. To them this was a "life and death matter" and they deserved to know if American leaders were "sober and responsible." In the upcoming discussions, the United States should compromise and concede that a general war would mean the use of atomic weapons by the United States. Lovett objected. What if the Soviets attacked American forces in Korea, he said, and the allies, Britain included, did not want to go to war? In order to fight the Soviets, the United States would have to use every weapon at its disposal, especially atomic weapons carried by bombers flying out of bases in Britain. Allied neutrality would be disastrous. The United States could not, therefore, commit itself in advance and so tie its hands in some future situation. Collins and Vandenberg concurred. They insisted on military talks before political to discover whether the British would deny
use of bases without American commitment to consult. Together with Lovett and Bradley they also opposed, when speaking of the atomic bomb, referring to it only in connection with general war because that would imply the United States could not use it in other circumstances. In the end, Acheson deferred to their judgment on every point.  

The JCS were being extremely cautious. The British had misinterpreted American words before and might, intentionally or not, do so again. It turned out they were right about British intentions to get a commitment from the Americans concerning consultation on the use of the atomic bomb. On September 11, 1951, Acheson and Jessup met with new British Foreign Secretary Herbert S. Morrison, Elliott, and Franks and discovered that the British desired immediate politico-military conversations between Morrison and Franks on the one hand and General Bradley and a State Department representative on the other. Prime Minister Attlee, already under attack for failure to preserve British defense ties with Egypt and because negotiations with Iran concerning continued British control of Iranian oil had collapsed, was again under severe pressure in the House of Commons to say flatly that the British had the right of consultation on the use of bombers carrying atomic bombs and flying out of British bases. At the very least, Franks suggested, Bradley and Elliott should begin discussions and have himself and someone from the State Department join in. Mindful of the wishes of the DOD, Acheson resisted all proposals for politico-military talks. There was not enough time to achieve the desired results, he said, because Morrison would have to return soon
to Britain for the election campaign. And even if Morrison's presence was not required for the talks, American law limited the commitments the administration could make. Although, therefore, he could not approve at present politico-military talks, he saw no problem in consulting the British prior to using British air bases—so long as the President had freedom of action on the use of the atomic bomb. He then declined to help the British government frame answers to Conservative thrusts expected in the House of Commons on the right of consultation. The meeting became strained. Morrison, never an easy man to deal with, gratuitously raised the question of British security standards and the American practice of having all workers sign forms saying they were not Communists. He said he doubted whether implementing this practice in the British program would be "useful." Shifting suddenly to the matter of information exchanges, he told Acheson it would be very helpful if he could receive an understanding (from Acheson) that the United States would seek an amendment to the McMahon Act. Acheson pointed out that the difficult political atmosphere created by the Fuchs and Pontecorvo cases made this impossible. When he refused even to give Morrison a private assurance that the administration would propose an amendment to the McMahon Act when the opportunity arose, the Foreign Secretary went away empty-handed and disgruntled.¹⁰

Two days later, Franks came back for a meeting with PPS Director Paul H. Nitze, General Bradley, and Matthews and softened the British position considerably. There were two general categories of issues in the February 22, 1951 paper, Franks said—military judgments
with possible political connotations (including appraisals of the strategic significance of particular areas and principles/qualifications to apply to the manner in which the United States and Britain should handle aggression in particular cases) and problems of consultation. These latter problems were political in essence, having to do with American use of British bases for actual military operations. The Americans stared noncommittally. Franks then tried to justify a British right of being consulted on the use of the atomic bomb in the event of general war by pointing out the importance of British air bases and overseas possessions for the conduct of the war. Again, the Americans sat mutely. Finally, he admitted that the Prime Minister and the Cabinet needed real progress on the talks before Morrison's departure from the United States on September 21 in order to answer questions in Parliament about whether the British government retained control over its own bases. The Americans now understood what Franks was talking about. "Obviously" prior consultation and agreement with the British government would be required, Matthews and Bradley assured, before the United States could use British bases for military operations, but the question of use of bases and British control of those bases was less important than the basic question of Western unity. The Americans preferred to put the discussion in the context of the possibility of general war rather than use of the atomic bomb. However, even though the United States wanted frank discussions of situations which could lead to general war, Nitze remarked, it could make no commitment nor agreement. Would the United States, Elliott asked, be willing to consult Britain in advance of taking some action? The
United States, Nitze repeated, could make no commitment to consult.
Frustrated, Elliott gave his opinion that general war, should it come, meant using the atomic bomb, but Bradley quickly brought up the example of a Soviet attack on Yugoslavia to demonstrate that situations calling for use of the atomic bomb could not so easily be defined. Franks too was frustrated. He (perhaps indiscreetly) said that he was trying to decide what Attlee, or Churchill—should he win the upcoming general election—would want him to press for. The British government, he finally decided, wanted three things. It wanted opportunities for free discussions whenever particular crisis situations arose, opportunities to discuss hypothetical situations which might at some future time arise (for example, a Soviet attack on Yugoslavia), and opportunities to discuss certain more general principles in order to be able to approach borderline cases (where use of the atomic bomb would be a judgment call) to determine how close they, the British, were to the Americans in their thinking. The Prime Minister would want, he explained, to communicate with the President during a crisis and have the necessary background information, provided by these above discussions, to know how to analyze a given situation. The British government, he stated further, did not want a specific agreement requiring the United States to consult in advance of using atomic bombs in "cases X, Y, and Z," but wanted an expression of general intent to consult in advance of using the bomb, or in other words an informal understanding of intention to consult. The Americans refused. Nitze declared that the United States would make no commitment limiting American sovereignty in any way either in deciding when a general war
situation would occur or on the use of atomic weapons, and would not even commit to talk to the British on the entire subject. The best he would do was indicate that at present the United States intended to talk with the British. Franks interrupted. An expression of intent, he tried to suggest, was in a certain sense a commitment. No, Nitze replied firmly. The United States undertook no commitment of any kind for the future. He suggested they go ahead with talks to bring their viewpoints closer together and set up procedures to facilitate further talks, but there could be no ambiguity this time in what the Americans had said.\(^\text{11}\)

The Americans had, despite Franks' creative attempts to obscure plain meaning in convoluted language, stood firm. The British, due to a hopelessly weak bargaining position, could not convince them to reconsider. They had sought the right of consultation and been denied it—even concerning American atomic strikes flying from British air fields. They had attempted to bind the Americans to agreed principles and situations in which the atomic bomb could or could not be used and been rebuffed. They had asked the Americans to give some indication they would be consulted in a crisis situation and been told the United States would make no such commitment whatsoever. The only public statement the Americans would agree to was a simple announcement that the United States and Britain had discussed developments in the world situation and would do so again.\(^\text{12}\)

On October 17, 1951, the British finally informed the Americans that if under direct pressure in the election campaign, they would have to respond that in an emergency the United States would not
be able to use British bases without British consent. On the question of whether Britain had the right to be consulted as to the use of the atomic bomb, however, they would follow the statement proposed by the Americans that the United States and Britain had discussed developments in the world situation and would do so again and avoid a direct response. 13

Advocates of atomic energy cooperation with the British were hopelessly on the defensive in 1951 due to the overriding consideration of security and continued JCAE opposition. So long as the British remained incapable of and/or unwilling to meet American security demands and so long as American access to raw material supplies, although not guaranteed for the long run as Gordon Dean wanted, remained unimpeded, this situation would not change. The United States would not offer to give Britain a small supply of atomic bombs in exchange for British plutonium, it would not assist the British in detonating their experimental atomic device at an American test site without severe restrictions, and it would not agree to publish the now revoked wartime Quebec Agreement. Nor would the United States make concessions to the British on the question of consultation on the use of the atomic bomb, even on bombs carried by American planes flying out of British bases. The DOD and JCS wanted to preserve the President's freedom of action to launch an atomic strike against the Soviet Union and opposed any intimation that the United States was making a commitment of any kind to the British. Badly weakened politically and under the greatest pressure by Winston Churchill for the lack of cooperation between the United States and Britain in the field of atomic energy (as well as for
failure of its domestic and foreign policies), Attlee's Labor govern-
ment could find no way to persuade or exert leverage on the Americans
to reconsider.

*Public Papers of Presidents, Truman, 1949* (Washington, D.C.,

1Ibid., (1965), p. 727; Manchester Guardian, December 1,
1950, p. 7.

2Acheson, Present at Creation, pp. 481, 484; Harris, Attlee,
pp. 462-465; U.S. Minutes, Truman-Attlee Conversations, Sixth Meeting,
The White House, Washington, December 8, 1950, Conference Files:

3Memorandum of Conversation, November 30, 1950, Official
Conversations and Meetings of Dean Acheson (1949-1953), Reel 3,
pp. 450-451; Harris, Attlee, pp. 464-466.

4Memorandum of Conversation by Jessup, Washington, January 14,
1951, 790.00/1-1451; Bevin to Acheson, Washington, January 14, 1951,
790.00/1-1451; Memorandum of Conversation by Jessup, Washington,
January 15, 1951, 790.00/1-1451; Memorandum of Telephone Conversation
by Jessup, Washington, January 26, 1951, 611.41/1-2651; Acheson to
Bevin, Washington, January 26, 1951, 611.41/1-2651, FRUS, 1951, 1:802-
808. McMahon and the JCAE became suspicious in March that the adminis-
tration had made some agreement with the British to inhibit the
President's freedom of action on use of the atomic bomb and asked
Acheson if such an agreement had been made. Acheson said no. McMahon
to Acheson, Washington, March 7, 1951; Acheson to McMahon, Washington,
March 14, 1951, 711.5611/3-751, FRUS, 1951, 1:808-809.

5Encl. to JCS 2143/6, November 29, 1950, CCS 381 (1-26-50)
BP pt. 1, Modern Military Branch, National Archives, and in Poole,
History of JCS, Vol. IV, p. 171.

6Memorandum of Conversation by Arneson, Washington, April 7,
1951, 711.56342/4-751; Acheson to Marshall, Washington, June 14, 1951,
700.5611/6-1451; Memorandum of Conversation by Arneson, Washington,
June 14, 1951, PPS Files Lot 64D563; Lovett to Acheson, Washington,
November 5, 1951, 742.5/11-551, FRUS, 1951, 1:809-811, 843-854, 894-
897.

7Paper Prepared by Carlton Savage, Member PPS, Washington,
April 12, 1951, PPS Files; Memorandum of Conversation by Nitze,
Washington, May 4, 1951, 700.5611/5-451; Memorandum by Savage, Washing-

9 Memorandum of Conversation by Ferguson, Washington, August 6, 1951, S/AE Files, FRUS, 1951, 1:875-880.


12 Both Gowing and Harris have given the unfortunate impression that Britain either retained a right of consultation on the use of atomic bombs by American planes flying out of British bases or regained that right in October 1951. See Gowing, Independence and Deterrence, Vol. I, p. 318, and Harris, Attlee, p. 289.

13 Memorandum of Conversation by Arneson, Washington, October 17, 1951; Memorandum by Arneson to Acheson, Washington, October 18, 1951, S/AE Files, FRUS, 1951, 1:891-894.
X. FULL CONSIDERATION?

"Under arrangements made for the common defense, the United States has the use of certain bases in the United Kingdom. We reaffirm the understanding that the use of these bases in an emergency would be a matter for joint decision by His Majesty's Government and the United States Government in light of the circumstances prevailing at the time."

-- Anglo-American Joint Communique, January 9, 1952

On October 25, 1951, the Conservatives won the general election in Britain and Winston Churchill became again Prime Minister. Pleased at the return of the man who had been so great an ally in the fight against Nazi Germany and Imperial Japan, and whose tough anti-Soviet stance paralleled basic American containment policy, administration officials nevertheless had a certain sense of wariness about dealing with Britain's old leader. Because of his tremendous prestige, indomitable stubbornness, and comfortable political position, he might be able to bring pressure to bear on the American government to reestablish at least the level of cooperation that had been maintained during the Second World War. And yet Churchill was 77 years old upon taking office for the second time and there were questions as to how vigorous he would be in putting forth Britain's case for better treatment in the field of atomic energy.
On November 9, 1951, the Prime Minister dispelled these doubts. Speaking at the Lord Mayor's banquet at Guildhall, he declared that it was his intention to return Britain to economic and financial good health. He would, moreover, restore British influence in the world, especially with the Americans. The British government, he asserted, should have "full consideration" from the United States for its point of view on atomic affairs because Britain had taken and was taking "peculiar risks in providing the principal atomic base for the United States in East Anglia." Just what did the Prime Minister mean by "full consideration?" Was he angling to persuade the United States to give Britain more financial assistance along the lines of the Marshall Plan, expiring on December 31, 1951? Or did he, as members of the State Department believed, want both atomic energy information and the right of consultation on all atomic matters, including American use of the atomic bomb. And there was another question the Americans mulled over after the Guildhall speech. What would Churchill do if they declined to meet his demands? He would not. Churchill told the House of Commons on November 21, tell the Americans to evacuate their bases in Britain. But he would go to Washington just after the beginning of the new year and consult with President Truman and his advisors about atomic energy and other matters important to the two allied nations.

Churchill's desire for a return to the level of cooperation achieved during the war was tempered somewhat by briefings given him by his advisors about the (to British minds) intransigent American attitude in past atomic energy talks. Lord Frederick Cherwell,
Churchill's German-born but British-raised Paymaster General and personal advisor on all scientific matters, suggested that no amendment to the troublesome McMahon Act was possible in 1952, an American election year. The British should content themselves with winning from the Americans a recognition that non-cooperation in the field of atomic energy had produced a waste of effort and resources and should be replaced by better relations as soon as possible. This would mean passage of new legislation in the American Congress in 1953. The United States, in addition, should acknowledge that the British atomic program was a valuable entity and could make a significant contribution to the joint effort. This tack would assure that the United States made no further attempt to subjugate the British program to the American. But there was one area in which substantial progress could be made. The Prime Minister should negotiate with the Americans for the right of consultation before the President took any decision leading to a general war. He should also secure the right of joint Anglo-American decision on atomic attack missions, and for the right to be briefed on the details of the American strategic air plan.

Since the British atomic program was at long last about to produce an atomic device, the British believed that they could make a better case to the Americans concerning the value of their knowledge and cooperation. And yet the device would not be assembled and detonated until October 1952. In the meantime, high costs in non-military areas prevented plans for a rapid expansion of Britain's atomic bomb building program and hindered progress toward the development of atomic energy for commercial and industrial purposes. Budget
considerations, moreover, caused the new Cabinet to put aside Cherwell's plans for a costly reorganization of the atomic energy program. Consequently, the British government continued to have difficulty over the next few years assuring the Americans they were taking steps to improve British security standards to the satisfaction of American experts. ³

The British arrived in Washington on January 5, 1952 and settled into a series of meetings with their American counterparts lasting through January 10 and again from January 16 through 18. In between, Churchill and Anthony Eden, his Foreign Secretary, took time off for business in Ottawa, Canada. Ranging over many topics, including relations with the Soviets, the Americans and British explored their attitudes toward Communist China, the European Defense Community proposal, and growing Arab nationalism in the Middle East (especially Iran and Egypt). The discussions did not always resolve differences but did clarify the positions of both sides. A very friendly atmosphere was created in which Churchill in particular felt free to express his views. This was what the Americans wanted. While they had no intention of making substantial concessions, they were willing to make gestures to win the Prime Minister's support and/or good will for administration foreign policy. They were largely successful. Even on potentially divisive issues they had their way. When, for example, the Prime Minister made a strong appeal to reverse the NATO decision—concurred in by the Attlee government—to install an American admiral as overall commander of NATO's Atlantic forces, the Americans were able to maneuver Churchill gently away from a
confrontation. 4

The Americans also deflected British thrusts on atomic energy. In direct talks between Truman and Churchill with their key advisors present on January 7 through 10, 1952, the Prime Minister proposed that Cherwell and American officials open negotiations to find a formula under which the British and Americans could carry on effective cooperation in the field of atomic energy. Since the October 30, 1951 amendment to the McMahon Act did permit some exchange of restricted atomic energy information under certain circumstances, Acheson and Lovett conceded that this might be possible. But the British would have to put into effect an adequate security system to safeguard American secrets. Churchill responded that he was certain the British could meet American requirements. Promising a full background investigation of all personnel within the British atomic energy project, he declared that homosexuals would be excluded and inquiries initiated about persons with relatives living behind the Iron Curtain or with relatives having Communist sympathies. Even after this assurance, the Americans qualified their promise of improvement by saying the best they could do was work for "maximum cooperation within the limits of the McMahon Act." 5

That limitation, as Churchill learned when meeting with Senator Brien McMahon, author of the act, would prevent the kind of collaboration for which he had hoped. Although apologetic, saying that had he known about the Quebec Agreement and the extent of Anglo-American wartime cooperation in atomic energy he would never have proposed legislation so restrictive of information exchanges, McMahon
explained that undoing the provisions of the act would be difficult. There was still too much opposition in the JCAE and Congress. Within the administration, in addition, sentiment for cooperation was uncertain. The AEC and State Department favored improved contacts, but the DOD—particularly Robert LeBaron—did not.  

McMahon's assertion about LeBaron was confirmed at meetings on January 10, 1952 in Gordon Dean's office involving Dean, AEC Commissioners Henry D. Smyth and Thomas E. Murray, LeBaron, and Arneson for the Americans and Cherwell, British Ambassador Roger Makins, and Sir Christopher Steel for the British. Citing the spirit of the Churchill-Truman talks on atomic energy, Cherwell tried to get the Americans to agree to some exchange of classified information. In response, Dean offered to interpret the nine areas of the Modus Vivendi more liberally, and to be more sympathetic to other British requests if the British would ask specific questions and meet the requirements of the October 30, 1951 amendment to the McMahon Act. LeBaron, however, was suspicious of Cherwell's intentions. The only important atomic energy information that the United States possessed, he asserted, related to the design and manufacture of atomic weapons. That information the administration was expressly forbidden from communicating by the McMahon Act. Cherwell countered by observing that the United States possessed important information relating to atomic power reactors and that this data could be exchanged under the October 30, 1951 amendment. LeBaron shook his head. As to that amendment, he observed acidly, the DOD and JCS had not had the opportunity to cooperate with the AEC in its formulation and so would have
difficulty approving specific proposals that might be drawn up (by the AEC and British). The DOD, he explained, had "constitutional responsibilities for the national security" and must be sure that it did not violate those responsibilities by illegally exchanging information with the British.  

LeBaron's attitude irritated not only Cherwell but also the AEC commissioners and Arneson. Yet there was little they could do. Dean promised to try to provide the British with some of the information they needed while waiting until 1953 (after the election and with a new administration installed in Washington) to review the situation. If exchanges by that time did not satisfy the British, they would consider again whether to seek new legislation from Congress. What he was in effect telling Cherwell was that the British just would not get restricted information until at least 1953. Arneson was angry. In a January 15, 1952 memorandum to Acheson, he complained that the Assistant Secretary of Defense's attitude did not match the "spirit and intent of the Truman-Churchill meetings." He speculated that Cherwell would report to Churchill about LeBaron's obstructionism and Churchill would then prod Truman or Lovett about the DOD's general attitude. It might even be a good idea, he suggested to Acheson, if the Secretary of State himself talked to the President or Secretary of Defense about encouraging DOD officials toward greater flexibility. In any event, he did have some good news to report. In a later meeting on January 10 between Cherwell and Director of the CIA General Walter Bedell Smith, Smith and Cherwell had come to a tentative agreement to use the October 30, 1951 amendment to cooperate on the
gathering of scientific atomic energy intelligence. Truman himself had raised with Churchill the importance of finding out what the Soviets were up to in atomic energy and Cherwell and other British officials were pleased with the development.\textsuperscript{8}

The Americans also demonstrated a degree of flexibility on the question of consultation on the use of the atomic bomb. While the United States government would not consult on the use of atomic weapons nor before taking actions which might lead to general war, it would consult prior to making use of British bases. Any stronger commitment, the British had to understand, might compromise American freedom of action, especially in the event of an emergency. As a gesture of respect for the Prime Minister, however, Lovett promised Churchill and his advisors a personal briefing on the strategic air plan. This was accomplished at the Pentagon on the morning of January 17, 1952. Later in the year, Lovett authorized joint discussions with the British on strategic and tactical aspects of the air plan and an important meeting between the JCS and Air Marshal Sir John Slessor took place in July.\textsuperscript{9}

Although the joint communique of the conference referred only to an American commitment to consult on the use of bases in Britain in an emergency, not on the use of atomic weapons—at best a modest achievement for British diplomacy but more realistically a superficial one—Churchill conveniently decided well after the end of the conference to exaggerate the extent of progress made on atomic energy relations. On February 26, 1952, the day after the NATO Council voted in Lisbon to provide 50 divisions for the defense of Western Europe by
the end of 1952, he declared in the House of Commons that in Washington the Americans had agreed that they would not use atomic bombs from bases in East Anglia without British consent. This promise, he trumpeted, stated in a "formal and public manner what had already been reached as a verbal understanding between the late Prime Minister (Attlee) and President Truman." And there was more. When he told the Americans that the British were almost ready to test an atomic bomb and that the British had a plant ready for regular production of atomic bombs, a new atmosphere on atomic energy matters was created. As proof he cited McMahon's public statement—referring to the fact that British wartime contributions had been hidden from the Senate during 1946 deliberations on the Atomic Energy Act—in which he said that "now we (the Americans) may consider rethinking the entire situation with all the facts in front of us."10

The key to opening the door to American atomic secrets, Churchill and his advisors seemed to think, was to play up British atomic progress in the press and Parliament, fabricate news about improved Anglo-American cooperation and information exchanges, and in the process entice the Americans into agreeing to information exchanges in order to discover what in fact the British really did know. At the same time, these tactics would make it politically possible at home for the Americans to exchange atomic energy information. Accordingly, Churchill made his statement in the House of Commons. Then, British Foreign Office and atomic energy officials suggested that Britain was ahead of the United States in some areas the Americans deemed very important. These included development of smaller atomic weapons for
tactical use in support of combat troops and development of power "breeder" reactors which made more fuel than they consumed. Newspaper accounts of supposed British advances did not fool the Americans. When Cherwell sent Sir John Cockcroft, head of the British atomic energy program, to Washington the last two weeks in March 1952 with specific proposals to test the willingness of the Americans to go to the "maximum limit of the McMahon Act," Cockcroft achieved very little. The Americans were willing to offer some cooperation on the gathering of intelligence about Soviet atomic activities and to revive some of the areas of exchange delineated in the Modus Vivendi but balked at disclosing any information the British really wanted. What they did offer would have amounted, had the British accepted, to an almost one-sided disclosure by the British of their atomic energy secrets. Annoyed and indignant, Cockcroft expressed his concern publicly in mid-April 1952 that American security restrictions were preventing visits by American scientists to Britain and British scientists to America. Churchill, a month later, announced that American observers would not be invited to witness the British atomic bomb test later in the fall. He would, however, consider "any proposals which the United States government might make for closer collaboration in the future."11

The January 1952 Washington conference had shown the British that the Truman administration did not want to cooperate, and indeed was still forestalled by the McMahon Act from cooperating, in the areas of atomic energy the British considered most important. Nor had they afterwards been able to maneuver the Americans into agreeing to greater collaboration. By summer, Churchill had come to understand that
progress on an interchange of information could not take place until two events occurred—British demonstration of atomic prowess by successful detonation of an atomic device, and formation by a new President in 1953 of an administration empowered by majority vote of the American electorate to carry out national policy for four full years. He did hope, however, to pursue the question of consultation on the use of atomic weapons, seeing in this issue a means whereby Britain could restrain the Americans from any hasty action in Korea, against the Chinese Communists, or even against the Soviet Union. Britain might yet retain a measure of influence with the Americans.

*State Department, Bulletin 26:83-84.*

1 London Times, November 10, 1951, p.6; Substance of Discussions of State-JCS Meeting Held in Pentagon Building, November 21, 1951, PPS Files, FRUS, 1951, 1:898-899; 494 H.C. DEB. 5, p. 376.


3 Peter Pringle and James Spigelman, The Nuclear Barons (New York: Holt, Rinehart, and Winston, 1981), pp. 137-139; Gowing, Independence and Deterrence, Vol. II, p. 56. By 1952, Cockcroft estimated that 60% of the effort at Harwell was directed toward the civil uses of atomic energy.

4 Acheson, Present at Creation, pp. 594-606.

5 Memorandum for Secretary of State, Secretary of Defense, by Lay, August 28, 1952, Papers of Harry S. Truman, President's Secretary's Files, Box 201, Harry S. Truman Library (photocopy); Extract from Minutes of Truman-Churchill Talks Pertaining to Atomic Energy, January 7-9, 1952, AEC, as cited in Hewlett, Atomic Shield, pp. 574-575; Gowing, Independence and Deterrence, Vol. I, pp. 413-414.


8Ibid.


10496 H.C. DEB. 5, p. 964; State Department, Bulletin 26:83-84.

XI. STRUGGLE FOR CONTROL OF ATOMIC ENERGY POLICY

"It is recognized that responsibility for advising the President as to the military desirability of the use of atomic weapons, as is the case with any other weapon in our national armory, rests with the Joint Chiefs of Staff and the Secretary of Defense. Responsibility for advising the President as to the political aspects of the use of atomic weapons rest with the Secretary of State. Military considerations and political considerations are often inextricably interrelated. By law, the power to decide on the use of atomic weapons rests with the President."

--Special Committee of the NSC on Atomic Energy, October 23, 1952

While Anglo-American atomic energy ties evidenced little improvement in early 1952, Churchill and his advisors believed it only a matter of time until American commitment to the bilateral atomic relationship caught up to American commitment to overall British, and Western European, security. That latter commitment was increasing, moreover, and might just be the catalyst needed to rev up the engines of atomic cooperation. In late February, the NATO Council voted to admit Greece and Turkey to formal NATO membership and agreed to provide 50 divisions for the defense of Western Europe by the end of the year. Strong supporters of the decision, American policy-makers applauded. They also led the cheers after the representatives of France, West Germany, Italy, the Netherlands, Luxemburg, and Belgium met in Paris on May 27, 1952 to create a European Defense Community (EDC). Designed
to establish a single unified command and bind West Germany to the Atlantic defense plan, the EDC concept faced tough sledding in ratifications debates in the signatories' national assemblies, especially the French. But the British and Americans quickly issued a joint statement proclaiming that a threat to the EDC would be regarded as a threat to their own security and gave the concept a needed boost. By mid-1952, it did appear that the United States was moving inexorably in the direction of closer ties to Western Europe.

Might not Churchill's hope of Anglo-American atomic partnership, then, eventually come to pass? The problem was that important obstacles to cooperation still remained. Events within the American atomic energy program, in the international sphere, and among the American policy-makers all served to complicate greatly formulation of American atomic energy policy and shunt once again Anglo-American atomic relations into the background. These events had their origin in the recent past.

In September 1951, Senator McMahon and the other members of the JCAE determined that the United States should maintain and extend its lead in atomic energy over the Soviets and launched a campaign to persuade the administration and Congress to approve a vast expansion of the atomic energy program. They insisted that the United States begin to mass-produce atomic weapons, accelerate the program to build the hydrogen bomb, and discover and develop more raw materials to propel the program. The administration took care to listen. By mid-January 1952, the National Security Council had discussed and approved a five year, five to six billion dollar program to expand American
fissile material production and increase weapon stockpiling. On January 21, the administration submitted the program to the JCAE. In the next few months, the JCAE kept after the AEC until the commissioners submitted an appropriations request to Congress, then fought off an attempt by the House Appropriations Committee to slash the proposed program. The compromise secured much of what McMahon and his colleagues had wanted.¹

As originally formulated, the program necessitated a large increase in uranium requirements, almost doubling it to 9,200 tons of ore by 1958 and permitting stockpiling so that the consumption level of 12,500 tons would be reached by 1961. If the United States had had to depend upon old uranium sources, the administration would have had to have competed for those sources with the British and others pursuing atomic energy development. The result would have been serious disruption of relations with Britain and damage to plans—embodied in the EDC Treaty of May 27, 1952—to improve the strength and cohesiveness of the NATO alliance. Fortunately, new sources and an abundant supply of uranium were becoming available. The Korean War had been a catalyst for a general reassessment of American raw material supplies and resulted in a realization that the United States needed increasing supplies of many materials, not just uranium. The decision was then made that the United States would have to rely more and more on foreign sources of petroleum, iron ore, and other critical raw materials. By 1952, uranium mines in South Africa and Australia were being prepared and American production was up. Enough ore would be available to fuel the atomic energy expansion and provide for the needs of other nations
interested in the uses of atomic energy.²

If determination to stay ahead of the Soviets motivated McMahon and the JCAE to push through expansion of American atomic capabilities, the perceived growing power of both Soviet and American atomic arsenals persuaded some in the administration and many in the international community that superpower competition in the atomic sphere was making the world a much more dangerous place to live. The problem was what to do about it. Clearly, attempts at international control of atomic energy in the U.N. had foundered over mutual distrust and unworkable control plans. Some believed a different tack was necessary. On January 11, 1952, the U.N. General Assembly voted over the opposition of the Soviets to dissolve the U.N. Atomic Energy Commission and set up a Disarmament Commission under the authority of the Security Council. The purpose of the new body would be to find some way to regulate, limit, and reduce not just atomic but all armaments in the interest of reducing tensions and preserving the peace. From the beginning, however, disarmament efforts ran into the same disagreements which had plagued atomic control efforts. Distrusting the Soviets, the Americans placed great emphasis on developing first an adequate disclosure and verification system. Only then would a disarmament plan be put into effect to control atomic energy, gradually reduce weapons of mass destruction, and at the same time reduce overall armed forces and conventional weaponry. The Soviets, on the other hand, opposed permitting on-site inspection of their atomic and military facilities. Inspection, they said, should be limited and on a "continuing basis," but there should be no right
to "interfere in the domestic affairs of states." In essence, the Soviets wanted a paper declaration prohibiting atomic weapons and disclosure of only official data as to armed forces and conventional armaments. By the end of 1952, their position was that armed forces and armaments should be reduced by one third for the United States, Soviet Union, Britain, France, and Italy.³

While disarmament proposals were worked out within the administration and in consultation with Britain (and other allies), a policy debate took place between the DOD and AEC concerning custody of atomic weapons and the procedure for advising the President on the use of those weapons. In November 1951, Secretary of Defense Lovett, displeased that the military controlled so few of the atomic weapons the military would have to use in the event of a general war with the Soviets, asked the JCS to determine "the exact nature and scope of DOD interest in the use of atomic weapons" and to describe DOD responsibility for determining requirements for atomic weapons, delivery methods, and where and how such weapons would be used. The JCS replied in December. Citing the overriding importance of atomic weapons considerations in the acquisition of foreign bases and design of weapons systems, they declared that the military must have full freedom of action in an emergency and could not agree to any other agency "interposing itself between them and the President in submission to him of recommendations for a military course of action, nor could they agree to any such other agency having a voice in determining how, when and where such military operations are to be conducted." The DOD, the JCS said, was the consumer of atomic weapons and the AEC the producer.
The establishment of this relationship would have far-reaching consequences. Since the DOD drew up war plans requirements, it should determine atomic weapons production by the AEC—though a review of the proposed production program by the Special Committee of the NSC on Atomic Energy Affairs (Secretary of Defense, Secretary of State, and Chairman of the AEC) was acceptable.\textsuperscript{4}

Likewise, while it welcomed AEC help and ideas on research and development of new weapons, the DOD should have the final decision as to weapons yields, types, and quantities. In order to allow for long-range production planning, it would give the AEC a three year estimate of its needs. DOD dominance should also extend to advising the President. The JCS and DOD, the JCS assured, had both the military and technical competence to advise the President on where, how, in what numbers, and in what types of weapons the President should employ atomic weapons. The JCS, therefore, should be the "principal source of advice" on these matters. As to exchanges of data with other nations, the JCS wanted to insure that the AEC and State Department could not use the October 30, 1951 amendment or any other means to end run DOD opposition. Decisions to exchange information with the British or other nations, they said, should be made unanimously by the American members of the CPC with final approval by the President. As a guiding policy, in addition, information exchanges should be limited, specific, and include no data pertaining to weapons or beneficial to weapons manufacture. If a decision was made to exchange information and/or fissionable material with a foreign government, the JCS should have responsibility for making the exchange. Another area where a change
was necessary, the JCS believed, was in providing security. The atomic stockpile had grown far too large for AEC resources and too many non-military people (AEC and State Department personnel) would know about transfers of weapons in times of emergency. AEC control also impeded military readiness and flexibility. All responsibility for storage, surveillance, maintenance, and security, then, should go to the DOD. Lastly, until full custody of the stockpile for the DOD could be arranged, the JCS proposed "the establishment of a reservoir of finished weapons in the complete custody of the military." The entire plan would improve military readiness while still reserving for the President the decision on whether to use atomic weapons.5

On January 29, 1952, the President reviewed the JCS/DOD plan with Lovett and ordered a study done by the Special Committee of the NSC. Accordingly, Lovett registered the JCS recommendations with James S. Lay, Executive Secretary of the NSC, on February 6. The AEC, however, moved far more deliberately. Dean and the other commissioners recognized the JCS/DOD plan for what it was—an attempt to take from the AEC much of its policy-making power with respect to atomic weapons. The AEC, he wrote on May 27, had assured the maximum degree of readiness for the use of atomic weapons. An emergency plan for transfer of weapons to military control was already in existence and the AEC was willing to go further and work out with the JCS a plan to establish the reservoir of additional weapons in DOD custody that the JCS wanted. The present system of divided responsibility, contrary to what the JCS had suggested, was in the best interests of the United States. It provided the AEC with overall authority over the stockpile while the
DOD gradually took on more and more of the physical control—in other words, maintenance, surveillance, and security. The AEC had always cooperated fully in providing the DOD and military with weapons for training purposes and would continue to do so. But, while the DOD now had the technical competence to handle an increasing number of atomic weapons, the AEC had to retain the right of access to all weapons, even those indisputably under military authority. Access was necessary for the AEC to carry out quality control checks, determine what improvements in weapons manufacture and design would be necessary, and to conduct major stockpile retrofits in the future.

Dean and the commissioners also took serious exception to the DOD claim to set atomic weapons production rates and goals. Although the JCS should quite properly estimate the numbers of desired yields of weapons they would need to implement war plans, the AEC was responsible for the nuclear design of warheads. Design determined the amount of fissionable materials and therefore the yield in each nuclear core. Fissionable material production, in addition, was earmarked for activities besides atomic weapons requirements. The AEC was actively involved in the research and development of atomic energy for power production. With regard to the questions of who should advise the President on the use of atomic weapons—the "how, when, and where"—and recommendations to the President for exchanges of information with foreign governments, the JCS was way off base. An NSC study approved on April 27, 1951 had already established that the NSC was the principal agency for advising the President on use of atomic weapons. And it was the NSC, not the American members of the CPC, which under
the October 30, 1951 amendment was directed to recommend exchanges of restricted data with foreign governments. Because of that amendment, moreover, and also because it might be to the advantage of the United States, the AEC wanted to try for a broader exchange of information with foreign governments (the British and Canadian). Yet, it understood that the JCS themselves had under consideration legislation to allow information exchanges with NATO allies to facilitate conduct of combined operations. The Joint Chiefs even contemplated an actual exchange of fissionable material for the very same purpose. It asked to be kept informed. 7

In his memorandum, Dean did not hide his irritation at the JCS/DOD attempt to gut AEC policy-making authority. His references to the October 30, 1951 amendment, for example, were worded tauntingly. And yet Dean's attitude was understandable in light of the fact that the military themselves—so righteous in attacking AEC support for more cooperation with Britain—were considering legislation to win authority to exchange atomic information with the NATO allies for their own purposes. Proposed by the JCS in November 1951, the recommended legislation would have given the President, after eliciting the unanimous advice of the Chairman of the AEC and Secretaries of State and Defense, the right to authorize exchanges with foreign governments "if he determines that such communication is necessary for defense and security of the United States." While the old prohibition against transfer of weapons information and/or information directly applicable to fabrication of atomic weapons would have continued, the new amendment would have permitted transfer of intelligence data, other data necessary for
combined operations, and/or information necessary to the preparation of plans for the conduct of combined operations. It would also have permitted exchanges of atomic weapons or atomic weapons components if required to further such combined operation or plans. The AEC's role would have been to certify that the security of the recipient country was adequate. 8

Dean and the AEC commissioners had just given Truman that kind of assurance on another matter in a top secret letter on May 26, 1952. Earlier in the month, the letter revealed, AEC officials had met with high officials of the Ministry of Supply (the organization in charge of the British atomic energy program) and received guarantees of compliance with security standards required before the United States could communicate to the British restricted data under the October 30, 1951 amendment. The data in question was essential to the collection of intelligence on the progress and developments in the Soviet atomic energy program. But the British had gone further. Ministry of Supply officials had indicated that they would welcome a visit by the FBI and AEC's Division of Security to check on "procedures employed in the investigations and evaluations of such investigative reports."

Agreeing to permit inspection of British security by foreign, even American experts, was a startling act of self-derogation of national sovereignty and striking evidence (it appeared) of British intention to improve security. For once, all administration agencies were satisfied. The only question was whether the JCAE would be. On June 17, Dean found out. Hickenlooper and a few others still objected, but the majority voted for the exchange. Once Dean assured the Special
Committee of the NSC that Hickenlooper and the other dissenters would not go public with their opposition, the Special Committee advised the President that the proposed exchange would substantially promote and not endanger the common defense and security of the United States (a determination, along with the security assurances, required by the October 30, 1951 amendment). On June 26, 1952, Truman gave his approval.9

Far more difficult to resolve was the festering conflict between the DOD and AEC. By mid-June 1952, the dispute had boiled down to four basic issues—the procedure for advising the President on the use of atomic weapons and other matters like deployment of atomic weapons, the manner in which atomic weapons production programs should be established, the question whether an amendment to the McMahon Act should be sought to enable the military to transmit information on atomic weapons to foreign governments to facilitate combined military operations and to permit exchanges of fissionable material and/or weapons material for such operations, and the question whether all or part of the national atomic stockpile should be turned over to complete custody of the military. On June 11, the State Department gave its opinion. The JCS were, as the JCS had asserted, the President's principal military advisors, but the NSC had the responsibility of advising the President with respect to integration of domestic, foreign, and military policies. It was the NSC, therefore, which should render advice on the use of atomic weapons once the JCS had made an initial recommendation that atomic weapons should be used. The JCS statement that other agencies were "interposing" themselves between the
JCS and the President on this matter was incorrect. Nor should the
JCS set atomic weapon production rates and goals. This was the
province of the AEC. In fact, the State Department believed that the
JCS should not even have a monopoly with regard to advising the
President as to the type of weapon (for example, hydrogen as opposed
to atomic) and delivery related to target selection. These choices,
it was felt, might well have a bearing on the outcome of the conflict
and the "possibilities of winning the peace once victory is assured."10

This last claim would clearly have constituted an infringe­
ment upon the JCS role as the President's principal military advisors,
especially if the State Department desired to interject itself into
weapon and target selection in an emergency. But the claim in itself
was evidence of the alarm felt by the State Department, in addition
to the AEC, at the JCS' and DOD's bold attempt to exclude the other
agencies from influencing policy pertaining to atomic weapons. Having
stiffly rebuffed the JCS and DOD for their impertinence, however, the
State Department then felt free in its written recommendations to
return to the more comfortable role of statesman. Until the
October 30, 1951 amendment had been fully tested, it suggested, it
would not be wise to propose yet another change in the McMahon Act to
facilitate cooperation with allies. The JCAE and Congress just would
not react well to an administration proposal for new legislation so
soon after the last amendment. An attempt now, moreover, might
jeopardize a later, more comprehensive attempt. But the State Depart­
ment believed that when the time did come for proposals to exchange
information on atomic weapons, the JCS, not the AEC, should have the
responsibility for drafting the changes. The State Department and AEC should only reserve for themselves the right to advise the President as to the foreign policy implications and technical considerations involved in the proposed exchange. Finally, because the JCS had demonstrated a realistic need to deploy more atomic weapons to overseas bases to improve military readiness, the State Department backed the idea of putting into military custody a reservoir of finished weapons. It also supported military custody of atomic weapons within the continental United States, but only up to minimum operation requirements. The AEC should keep the rest and have access to the entire stockpile from time to time for quality control, modifications, and redesign. 11

Meanwhile, the staff of the Special Committee of the NSC made its own report advising the President on the use of atomic weapons. It paralleled, but went into greater detail than, the State Department document. The procedure would begin with a JCS determination that using atomic weapons in a given situation was "militarily desirable." Then the members of the Special Committee would give their views on political, military, and technical considerations. If time and circumstances permitted, Congress would pass and the President approve a Joint Resolution declaring war—clear authority for the President to use all means to carry on the conflict. But if the Soviets were launching a surprise attack and time constraints were a factor, the President would have to act under his constitutional powers as Commander-in-Chief, make such decisions with respect to utilization of atomic weapons as were necessary, and consult with
congressional leaders at the earliest possible moment. In an urgent situation short of surprise attack, the President might have time to consult beforehand with congressional leaders. At a very minimum, he would want the advice of the JCS, Secretary of Defense, Secretary of State, and Chairman of the AEC. Additional actions to be taken could be decided at a meeting with congressional leaders, again if time and circumstances allowed. These additional actions might include briefing or consulting other governmental agencies or officials (the full NSC, Cabinet, or Civil Defense Authority), informing the American people, or communicating with other governments, especially "those whose consent is required before their bases can be used by the United States for atomic strikes."\(^{12}\)

Taken as a whole, this Special Committee staff study was unclear on the question of consulting foreign governments, in particular the British. The language referring to consent before using foreign bases to launch atomic strikes seems by context and phrasing to be absolutely applicable only when the President and his key advisors had sufficient time to meet first with congressional leaders. In other words, in the event of a surprise attack and if the JCS, supported by the Special Committee, recommended atomic strikes by American bombers using foreign bases, the President might well authorize such strikes without contacting and consulting foreign governmental leaders. He might do this on the basis of an explicit agreement worked out with a foreign government well in advance and designed specifically to provide for such a contingency. Or, in the absence of such authorization, he might imply foreign consent by virtue of the
fact that the foreign government in question had permitted establish-
ment of American bomber bases on its soil and subsequently concurred
in the arming of those bombers with atomic weapons. Under either
reasoning, the President and his advisors would have the freedom of
action necessary to respond to a surprise Soviet atomic attack, the
freedom of action American policy-makers had consistently insisted
upon in discussions with the British and other foreign governments.
If time and circumstances permitted, the United States would probably
consult but did not want to be legally bound to do so.

With respect to the British situation, the joint communique
of January 9, 1952 was sufficiently vague to support the implied con-
sent interpretation. "Under arrangements made for the common defense,"
the communique read, "the United States has the use of certain bases
in the United Kingdom. We reaffirm the understanding that the use of
these bases in an emergency would be a matter for joint decision by
His Majesty's Government and the United States Government in light of
the circumstances prevailing at the time." The British might object,
but the United States could make the case that if "the circumstances
prevailing at the time" were a surprise Soviet atomic attack
threatening American bases in Britain with destruction, and if the
attack were so sudden as to leave no opportunity for consultation with
British leaders, the President would have full authority to order
atomic retaliation from those bases. Fortunately, however, the state
of Soviet atomic power in mid-1952 made it very unlikely the Soviets
would consider such a rash action forcing the President to make so
fateful a decision. In mid-1952, the number of Soviet atomic bombs
was estimated at 50. With bombing capability limited to Western Europe, and with American atomic forces so formidable, the Soviets were hardly in a strong position to provoke war. And yet the balance of forces might look less favorable at the end of the decade. Estimates of the growth of Soviet atomic capability showed the number of Soviet atomic weapons roughly doubling over each of the next three years. Even more dangerous, by the mid to late 1950's the Soviets might develop delivery systems to threaten the United States itself. By the end of the decade, therefore, having freedom of action on the use of the bomb, freedom from the cumbersome constraint of having to consult with distant allies prior to launching retaliatory nuclear attacks from overseas bases, would take on a critical importance.\[13\]

The strains between the DOD, State Department, and AEC had to be resolved, the President ordered, and a meeting was held on June 17, 1952 with Acheson, Dean, Lay, Arneson, General Bradley, Deputy Secretary of Defense William C. Foster (sitting in for Lovett), and LeBaron in attendance. Despite previous sharp differences, the participants conducted themselves in a spirit of compromise. Almost at once, all parties accepted the NSC staff study paper recommendations for the procedure for advising the President on the use of atomic weapons. After an initial JCS recommendation, they agreed, the NSC would help the President decide. Next, they all concurred that new legislation was needed to permit exchange of atomic weapons information with the NATO allies for planning purposes. But the point was made that the JCAE and Congress might well balk at amending the McMahon Act. What was needed, LeBaron suggested, was an interim
arrangement prior to passage of another amendment. He asked if it might not be possible for the AEC to make an official determination that the size, weight, shape, yield, and military effects of atomic weapons were no longer "restricted data" within the meaning of the McMahon Act. That might be possible, Dean replied, and such a reinterpretation ought to be investigated, but he warned that the JCAE would have to be informed. LeBaron and Bradley were not deterred and it was agreed that the AEC and DOD would see what could be done in this area. 14

The spirit of compromise remained vibrant as the conversation turned to the question of custody of the atomic stockpile. Dean offered to support the deployment of atomic weapons to forward (overseas) bases if the DOD agreed to take responsibility for security, make the required arrangements for evacuation, and insure storage so that there would be no physical deterioration of the weapons. He also agreed to support turning over some number of atomic weapons at "fully operational bases" in the United States, but the AEC must continue to have access. Bradley had one reservation. The JCS, he said, felt that the military needed immediate custody of more atomic weapons in order to be ready for emergency use and to improve security in the event of an emergency movement of the weapons from storage facilities to bombers. The stipulation about "fully operational bases" might prevent immediate custody. His argument failed to persuade Dean. After a brief discussion during which LeBaron conceded that the initial estimate of atomic weapons the military should control was too high, it was agreed that the JCS and DOD would study the matter further and find a more
realistic number. It was also agreed that the AEC and DOD would work out means for a transfer of a portion of the stockpile to military custody and that the Special Committee would consider their joint recommendation. On the last issue—the question of who should set atomic weapons production rates and goals—Dean suggested that the AEC and JCS were not so far apart as previously thought. "Greater precision of language," he said, was all that was needed to resolve the problem. It was decided that the AEC and JCS would study the situation and present to the Special Committee a joint recommendation.\textsuperscript{15}

Final resolution of the disputed issues took place September 10, 1952. The Special Committee adopted and the President approved the compromise proposals worked out between the interested parties. The procedure for determining atomic weapons production would begin with a DOD statement of the numbers, types, and desired military characteristics of atomic weapons it wanted. In light of DOD requirements, the AEC would then propose rates and goals of production for weapons materials and indicate its capabilities to meet DOD requirements. If there were differences between the AEC and DOD proposals, the President would decide. Once the AEC constructed the weapons, in addition, it would conduct tests and evaluations to check quality and performance. The DOD would then have the right to conduct its own tests and evaluations to ascertain whether the weapons met desired military characteristics.\textsuperscript{16}

The internal American policy debate of the first half of 1952, combined with work on the atomic energy expansion program, discussions about disarmament proposals, events and developments in the
Korean War, and other administration business served to preclude
(had the administration entertained the thought of initiating) serious
bilateral discussions with the British on atomic energy matters and/or
use of atomic weapons. But by summer, that debate had largely ended
and the Americans had no excuse for ignoring British calls for talks.
British military leaders, in particular, were very interested in
examining the implications of atomic weapons capability for the British
defense posture and joint Anglo-American strategy. They, and British
political leaders, wanted to sit down with their American counterparts
before any more time had passed. Despite the nearness of the American
election and the certainty that a new President and new administration
would take office in January 1953, they wanted no delay in reviving
atomic contacts.

*Memorandum for the President, October 23, 1952, Papers of
Harry S. Truman, President's Secretary's File, Box 202, Harry S. Truman
Library (photocopy).

1Memorandum for President, Washington, January 17, 1952,
Truman Library, PSF Subject File, FRUS, 1952-54, 2:851-858; Harold P.
Green and Alan Rosenthal, Government of the Atom (New York: Atherton

2Minutes of Meeting of U.S. Members of CPC, Washington,
Alfred E. Eckes, Jr., The U.S. and the Global Struggle for Minerals


4Memorandum by Lovett for Lay, Washington, February 6, 1952,

5Ibid.

Ibid.

Note by the Secretaries to JCS on Amendment to Atomic Energy Act, June 23, 1952, CCS 471,6 (8-15-45) secs. 28-33, RG 218, Central Decimal File 1951-53, Box 168, Modern Military Branch, National Archives.


Ibid.

Staff Study Prepared by Representatives of Special Committee of NSC on Atomic Energy, Washington, June 11, 1952, G/PM Files, Lot 68D349 "Use Policy 1950-55," FRUS, 1952-54, 2:973-979; Memorandum for President by Gleason, October 23, 1952, Papers of Harry S. Truman, President's Secretary's File, Box 202, Harry S. Truman Library. Parts of this latter memorandum dealing with the allies and the question of consultation were blacked out by the Harry S. Truman Library staff because they are still classified.


Memorandum by Acheson, Washington, June 13, 1952, 700.5611/6-1352; Informal Minutes of Meeting of Special Committee of NSC on Atomic Energy and Chairman JCS, Washington, June 17, 1952, G/PM Files, Lot 68D349 "Use Policy 1950-55," FRUS, 1952-54, 2:981, 984-988. This was the same meeting at which the Special Committee recommended the exchange of intelligence information once assured by Dean that Hickenlooper would not go public with his opposition.
Memorandum by Lay to Acheson, Lovett, and Dean, Washington, September 10, 1952, G/PM Files, Lot 68D349 "Use Policy 1950-55," FRUS, 1952-54, 2:1010-1013; Poole, History of JCS, Vol. IV, pp. 158-159. Decision about the number of atomic weapons to place in the hands of the military for "operational flexibility and military readiness" was not so easily achieved. Lovett, in August, persuaded the President to authorize the placement of considerable numbers of non-nuclear components aboard aircraft carriers and at certain overseas bases where they would be secure. In October and November, he and the JCS pushed once again for military control of the entire stockpile. They backed off only when Dean persuaded them to wait for Eisenhower to take office in January 1953.
"No arrangements have been made for American observers to witness the test of the United Kingdom atomic weapon. The United States Government is prevented by existing domestic legislation from exchanging reports on atomic weapons with other countries. I should, of course, be very willing to consider any proposals which the United States Government might make for closer collaboration in the future."

--Winston Churchill, May 19, 1952

After the Americans in 1945 and 1946 rejected the idea of a postwar Anglo-American atomic partnership, British officials fell back on the theory that American policy-makers would only grant Britain full equality in the atomic sphere once the British program produced a workable atomic device. Now, in mid-1952, with preparations for their first atomic test right on schedule for an October detonation, they firmly believed that their opinions should once more count for something in the deliberations of the Americans on atomic matters. They hoped and expected that the Americans would feel the same way.

In order to be able to converse intelligently on the subject, Churchill asked the British Chiefs of Staff in June 1952 to meet at the Royal Naval College at Greenwich to study global strategy and Britain's role in maintaining the West's atomic deterrent. The British Chiefs complied and produced recommendations for the Prime Minister's consideration. Even though, they believed, the United States possessed
a large stockpile of atomic weapons and held a sizeable strategic advantage over the Soviets, and even though economic problems made it unlikely that the British government could build many atomic bombs, Britain had to take a share in the West's atomic deterrent. This was necessary for two reasons. An independent British deterrent force would increase British influence on American Cold War policy and on planning war strategy, and it would insure that in the event of war with the Soviets the British possessed atomic weapons with which to attack and destroy targets not of direct strategic interest to the United States but of importance to Britain. Specifically, the British could concentrate on producing smaller yield weapons to use in a tactical role during ground engagements in Western Europe or at sea. The disadvantage of not possessing atomic weapons had been demonstrated only too well at the recent January 1952 meetings in Washington. British atomic power had still only been potential and the Prime Minister had had a difficult time staking a claim on decision-making for strategy in a future war (and as a consequence for the peace terms after such a war). British commanders-in-chief, at present time, had insufficient information on how the Americans would use atomic weapons in a future war and so could not take that all-important factor into account when drawing up war plans. Despite the cost, then, Britain would have to press ahead with a relatively large bomb-building program.¹

There was a chance, however, the British Chiefs believed, that American assistance might yet be forthcoming to reduce the burden. Although arrangements for a supply of American atomic weapons under
British control, under discussion in late 1949, had been ruled out by the Fuchs betrayal, it might be possible to revive the idea after the American Presidential election in November and after the British tested their first atomic device. That latter event might just be the lever to move the heavy weight of Anglo-American non-cooperation off dead center. In any event, they believed it probable that should war come, the United States would make available to the Royal Air Force a supply of American atomic weapons. It was all the more necessary then for the government to speed construction of atomic-capable V-bombers for strategic air offensive purposes. They recommended, in addition, that the government build more reactors, double the output of plutonium within three years, and accelerate the planned pace of bomb-building.²

Although the British Chiefs were cognizant of the costs of building up Britain's atomic power, they were even more impressed by the destructiveness of atomic weapons and the potential destructiveness of hydrogen weapons. Slessor and Chief of the Imperial General Staff Sir William Slim, in particular, believed that the advent of the hydrogen bomb would diminish severely the effectiveness of large conventional forces. When Slessor went in July 1952 to the Pentagon and met with the JCS, therefore, he tried to persuade the Americans that a radical change in strategy was necessary. There were two strategic alternatives for the defense of Western Europe, he told the JCS. NATO could build up a force of 98 divisions and 10,000 aircraft—"an economic impossibility, a logistic nightmare and a strategic nonsense"—or the allies could adopt a strategy based primarily upon atomic air power and reduce conventional force levels to cut costs. This, Slessor
maintained, was "strategically sound and economically practicable" and afforded "the best hope of preventing war." General Bradley was not convinced atomic attacks would be decisive. Recalling how the Germans had carried on in the latter years of the Second World War despite the allies' massive bombing offensive, he suggested that Sles­sor was not taking proper account of "modern defensive measures." Aside from that, adopting a new strategy was premature. Atomic weapons for purely tactical use would not be available in sufficient numbers until 1955. Unspoken but probably a factor in Bradley's comments was the American desire for the rearmament of Germany and other allied measures to reduce the burden on United States forces of the conventional defense of Western Europe. No matter, the upshot of the meetings was that American strategy for deterring Soviet attack, despite the fact that the NATO allies were backing rapidly away from providing the 50 divisions promised at Lisbon, remained the same.3

A recurring theme in Anglo-American atomic relations in the postwar period was the emphasis placed upon security of information by the Americans. And yet, despite numerous expressions of concern about British security standards and despite the fact that the Fuchs spy scandal had since early 1950 made it politically impossible for the Truman administration to contemplate significantly wider cooperation, the British failed to understand the importance of security to the Americans. Even American policy-makers like Dean who favored exchanges of information were disappointed at British reluctance to make security improvements. In an August 28, 1952 memorandum, Dean
poured forth his frustration. Ministry of Supply officials, he informed Lovett and Acheson, had taken no action on issuing the invitation to FBI and AEC Division of Security personnel promised in May. If the British issued no invitation soon, the AEC would not be able to render an informed judgment about British security arrangements. That would mean the recently agreed exchange of intelligence data would have to be cut off. The most recent information about British security, he went on, was not encouraging. An AEC commissioner in London on another matter had discovered that the relationships between British atomic energy facilities (like Harwell) and the Ministry of Supply, and between the Ministry of Supply and the Prime Minister and Cherwell were not clearly delineated. Such lack of organization could affect responsibility for administration and control of security procedures. He reluctantly had to question, therefore, the extent to which information under the Technical Cooperation Program (agreed to under the Modus Vivendi) should be exchanged. It was of the utmost importance, he reiterated, that the British permit a visit of inspection very soon.4

So discouraged was Dean by the situation that he wrote at the end of the memorandum that it might be best for the United States to withdraw from cooperative efforts altogether. This would mean that the JCS and DOD would have to drop plans for an interchange of information about atomic weapons to facilitate joint planning, but it might be that competition in this field was healthier than collaboration. He wanted the Defense and State Departments (and later the NSC) to consider the idea. Neither the Defense nor State Department rushed to do so. Instead, Under Secretary of State David K. Bruce assured
Dean that the State Department stood ready to assist the AEC in pressuring the British to improve security standards. He agreed that approval of information exchanges should depend upon the adequacy of British security but attempted to allay Dean's concern by citing British progress in security standards for non-atomic military information. Security for atomic energy information, he was implying, would follow.5

Despite the pledge to pressure the British on security, the State Department knew the early autumn was not the right time. The British were too busy and too distracted. On October 3, 1952 at Monte Bello Island in Australia, they tested successfully their first atomic device. The British Parliament and people were naturally proud and ecstatic, as was the government, but British officials did not rest on their laurels. They opened another campaign to persuade American policy-makers that cooperation in the field of atomic energy was in the best interests of the United States. Immediately after the detonation of their device, they let it be known that they believed their atomic test had demonstrated that they could make a "substantial contribution" to any plan to exchange information. They hinted that their bomb had been different from American models and might offer improvements in design. Since both they and the Soviets now had an atomic capability, moreover, security restrictions on all technical atomic details were less important than earlier in 1946 when Congress had passed the McMahon Act. Certainly atomic scientists on both sides of the Atlantic believed this was so and favored pooling information to accelerate research and development efforts. Even the American
Chairman of the JCS wanted to reveal *some* information about atomic weapons to the allies, if only to facilitate cooperation on combined operations. Winston Churchill spoke even more bluntly in the House of Commons on October 23. The British bomb, he said, had been exploded inside a naval vessel in a test to determine the impact of an atomic detonation in a harbor. One of the results of the test, he assured, would be closer ties to the United States in atomic energy matters and an interchange of information.\(^6\)

Optimism in the British government about the prospects for Anglo-American atomic relations became even more marked after the American Presidential election on November 5, 1952. Former Supreme Allied Commander in Europe Dwight D. Eisenhower had been elected by a substantial margin. Knowing that Eisenhower had always believed the Americans had treated the British very shabbily on atomic energy matters after the war and that he had favored and argued for increased cooperation within the administration in 1949, Churchill was publicly ebullient. In reply to a question in the House of Commons on November 20, he said that he wanted to exchange information not only about the atomic bomb, but about developments in the hydrogen bomb as well once Eisenhower took the oath of office in January 1953. The Prime Minister's enthusiasm was not just for public consumption. So certain was he that a sea change in Anglo-American atomic relations was imminent that he refused to support the doubling of plutonium output (to be effected by construction of another atomic pile) proposed by the British Chiefs and Lord Cherwell. His understanding had always been, he carefully explained, that the Americans would eventually
supply the British with bombs for their (British) use. The change of American administration and the success of the British atomic bomb test should make this kind of collaboration a reality. At any rate, he wanted to postpone the decision to begin a costly expansion of the British atomic energy program until he had talked to the newly elected President and listened to his views. The Prime Minister's decision to wait sorely disappointed Cherwell. Britain urgently needed a new atomic pile, he argued, not only for military purposes but to produce more fissile material for industrial applications. Even if Eisenhower did decide to give Britain as many as 50 atomic bombs, "new dual-purpose piles" would still be needed to learn how to design and use reactors to make electricity. For only six million more pounds extra per year for four years, he could launch the full expansion program.\(^7\)

Adamant that negotiations with the Americans had to be tried first, Churchill turned aside Cherwell's arguments and arranged to meet with the President-Elect in Washington on January 5, 1953, a year to the day after he had arrived for the meetings with Truman. Britain, he told Eisenhower and the press the day he arrived, could be a "useful partner" for the United States in the field of atomic energy if only given a chance. He did not say, but might well have been thinking, that cooperation between British and American scientists could accelerate the development of the hydrogen bomb. In this he would have been wrong. The United States had already secretly detonated a thermonuclear device on October 31, 1952 (November 1, 1952 Washington time) at the Eniwetok test site in the Pacific. The British and Canadians had been informed a few days before that two explosions
were scheduled for early November but had not been informed of the nature of either. 8

The Americans were seemingly leaving the British further and further behind in the development of atomic energy for military purposes. Because most American policy-makers believed this was so and that the British, even after testing an atomic device, had little new data to offer in an exchange of information, the idea of cooperation was far less enticing than the British had hoped. Then there were the complicating factors of intra-American policy disagreements and persistent American doubts about the adequacy of British security standards. After the negotiations of 1949 and the Fuchs spy scandal of early 1950, the Truman administration had never again put together a consensus on a realistic plan for substantial collaboration with the British on atomic energy matters. There had never been an American willingness to consult on the use of atomic weapons. Churchill and a few others might doggedly persist in the idea that the coming of Eisenhower would sweep away all barriers to cooperation, but those who had been involved in negotiations with the Americans on atomic matters longest had to wonder. Would Eisenhower's broom be strong enough to sweep away the opposition of the JCAE? Or would the McMahon Act prove once again mightier than the policy-makers?

*501 H.C. DEB. 5, p. 31.


4. Memorandum for Acheson, Lovett by Lay, August 28, 1952, Papers of Harry S. Truman, President's Secretary's Files, Box 201, Harry S. Truman Library.

5. Ibid.; Memorandum for Dean by Acting Secretary of State David Bruce, October 14, 1952, Papers of Harry S. Truman, President's Secretary's Files, Box 201, Harry S. Truman Library; Memorandum for Wilson by Bradley, July 14, 1953, CCS 471.6 (8-15-45) sec. 39, RG 218, Central Decimal File 1951-53, Box 169, Modern Military Branch, National Archives. On October 17, 1952, Lovett disregarded the JCS memorandum recommending an amendment to the McMahon Act because he considered it untimely.


"What they (the British) really want to know is that we are not starting a war."

--Dwight D. Eisenhower, March 7, 1953

Upon taking office, the new President had very clear in his mind a set of general principles to guide decision making on domestic, foreign, and military policy. His administration must discover a "reasonable and respectable posture of defense," he told the new members of the NSC on February 11, 1953. If this goal could be achieved and maintained over the long haul, the overall budget could be controlled, the economy would continue to grow, and the United States would remain strong enough to combat the growth of Soviet influence around the world. If it could not, the next four years might be difficult ones for the United States both at home and abroad.¹

Keeping a firm rein on defense spending did not mean that Eisenhower intended to oversee the dismantling of American military might. It did mean that he intended to recast it into a different mold and at the same time redefine American national strategy. Under the leadership of the Truman administration, American and NATO conventional military strength had greatly increased and the United States had adopted a national strategy of vigorously containing Soviet expansionism wherever the Russian Bear prowled. Under the Eisenhower
administration, the United States would place more emphasis on building up air and sea power, press the NATO allies to increase conventional strength and permit German rearmament, and rely more heavily on American nuclear superiority to deter Soviet aggression. With 1,600 operational atomic bombs to the Soviets 50 to 100 in January 1953, the United States was still far ahead in this area. Greater emphasis on atomic weaponry, in addition, would enable the administration to reduce conventional forces and save money. By no means, however, did Eisenhower and his Secretary of State John Foster Dulles intend the emphasis on air atomic and sea power to signal the allies the United States was backing away from the American commitment to Western European security. American defense ties not only to NATO countries but to Japan, South Korea, Australia, and others were essential to protect the United States' true interests and preserve the peace. Eisenhower was prepared to use nuclear weapons to defend those interests. At the end of March, for example, he told the NSC he would be willing to use atomic weapons in Korea if a "substantial victory over the Communist forces" could be achieved and the military stalemate broken. Fortunately, the war in Korea was ultimately resolved by negotiation of an armistice agreement in July 1953, permanently dividing the country along the 38th parallel, but Eisenhower's commitment to employment of nuclear weapons if necessary was clear.  

Because the defense policy he was proposing was so different from what had been the norm in the last few years of the Truman administration, Eisenhower understood that a concerted effort would have to be made to win the support of the Republican-controlled Congress. He
warned his subordinates to "exercise particular care to make certain of appropriate and timely consultation with Congressional leaders in all matters where this seems necessary or desirable." Already, the administration was being challenged by anti-interventionists in the Republican party led by Robert A. Taft, Senator from Ohio and the man Eisenhower had bested for the Republican nomination, and John W. Bricker, the junior Senator from Ohio and the author of the Bricker Amendment. The Bricker Amendment was designed to limit Presidential authority to make treaties with foreign powers which contradicted American law, require specific legislation to ratify all treaties and Executive agreements, and possibly even give Congress veto power over Presidential authority to send American combat troops into action in the absence of a declaration of war. Isolationist in nature and strongly opposed to foreign aid, the anti-interventionists wanted the United States to develop a Western Hemispheric defense concept. The Eisenhower administration did pursue plans to develop civil and continental defense against Soviet nuclear attack but shrugged off isolationist arguments to draw back from the policy of world-wide alliances. Eisenhower also had to worry about Senator Joseph R. McCarthy (R, Wisconsin) and his publicity-seeking campaign to find Communists in every corridor of power in Washington. Because he thought the junior Senator from Wisconsin would eventually overplay his hand and lose influence, and because he too was concerned with security (especially the security of American atomic secrets—as evidenced by his decision not to grant clemency to the atomic spies, Alfred and Ethel Rosenberg), he declined to speak out against McCarthy's excesses. In the end,
attempts by the right wing of the Republican party to interfere with Eisenhower administration policy largely failed.\textsuperscript{3} 

In no policy-making area would cooperation with Congress be more important than in the field of atomic energy, but relations between the new administration and the JCAE got off to a rocky beginning. Part of the problem was that the JCAE itself became embroiled in a bitter battle over the committee chairmanship between Senators and members of the House of Representatives. The Senators, both Republicans and Democrats, had taken the lead over the years in exerting the committee's right to review administration policies on atomic energy and believed, therefore, that a Senator should continue to hold the chairmanship. Members of the House, both Republican and Democrat, saw it differently. The JCAE was a joint committee, they argued, composed equally of members from the House and Senate. The chairmanship, therefore, should alternate. Since the Senate had monopolized the chairmanship from the time the JCAE had come into existence in 1946, a member of the House should take the chair for the term of the newly elected Congress. Neither side would yield and the result was stalemate from January through April 1953. Finally, with both sides completely polarized, Senator Hickenlooper, the Senate candidate, yielded to Representative W. Sterling Cole (R, New York) and an agreement was concluded to have the chairmanship alternate between House and Senate members. Hickenlooper became Vice Chairman of the committee.\textsuperscript{4} 

The JCAE was also weakened in its dealings with the new administration when the FBI discovered that a "vitally important
report" prepared by the technical staff of the JCAE had been lost. The report, consisting of a summary of the development of the hydrogen bomb, had been mistakenly classified SECRET by the technical staff, not TOP SECRET, and sent to a Princeton College professor. It had then disappeared. Eisenhower was furious. At a meeting of the NSC on February 18, 1953, he said that if the persons responsible for the loss of the report had been members of the armed forces, they would have been shot. It was small consolation that the JCAE technical staff would (he understood) be abolished after the new chairman was chosen. Vice President Richard M. Nixon did not want to wait that long. The FBI, he said, should conduct an immediate security check of all members of the JCAE technical staff. Perhaps, the President added, the FBI could also take custody of the files of the technical staff before any more papers were lost or dispersed when the staff was abolished. He suggested that the Vice President talk to Cole and Hickenlooper about these matters without revealing which particular report had been lost. 5

Temporarily at least, Eisenhower could use JCAE disorganization and weakness to steal a march on the committee members and reorder the manner in which atomic energy matters would be handled within the administration. This he did by appointing former AEC commissioner Lewis L. Strauss as his Special Assistant for Atomic Energy Affairs with plans to make Strauss Chairman of the AEC on July 1, 1953 when Gordon Dean's term expired. Since the President intended that Strauss remain his special assistant after July 1, members of the JCAE complained that Strauss's dual role would impair relations with the
committee. Strauss would sit in on NSC meetings and international conferences and feel bound to maintain silence about the topics of those conversations. This reticence, in turn, might inhibit his ability to keep the JCAE fully and currently informed about developments within the American atomic energy program. The President had made up his mind, however, and the disorganized JCAE could not get him to reverse Strauss’s appointment. Nor could they prevent the AEC from drawing up plans for the participation of private industry in the development of "practical nuclear power." Because most Democrats wanted the government to construct and operate power reactors to speed development, the issue continued to be a point of contention between the AEC and JCAE through both terms of Eisenhower’s administration. 6

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Gordon Dean had been chairman of the AEC since July 1950 and had been a consistent advocate of better atomic energy relations with the British. At first he had believed that through his friendship with Chairman of the JCAE McMahon and by the force of sound arguments, he could persuade the Joint Committee to amend the McMahon Act in favor of more cooperation. Soon, however, he had come up against the reality of JCAE unwillingness to imperil in any way the security of American atomic secrets. He had found himself, in addition, engaged in a bureaucratic struggle with the DOD over atomic energy policy and control of the atomic stockpile. Although he had succeeded in outmaneuvering the DOD and securing passage of the October 30, 1951 amendment to the McMahon Act, and although he had fended off (for the present) JCS and DOD attempts to take exclusive
control of atomic energy policy and the stockpile, he had failed to achieve greater cooperation with Britain. In his last few months in office, he tried again. Even before Eisenhower's inauguration, he was calling for more flexibility in the exchange of information with foreign governments, especially with those governments which provided the United States with its supplies of uranium ore. The United States had to be assured of a continuous and adequate supply of this critical raw material, he argued. Cooperation with allies, moreover, would permit the United States to concentrate on building up its nuclear stockpile while the allies conducted research into the nucleus of the atom and developed new types of atomic weapons. Since the United States would gain more than it would lose by such cooperation, he and the AEC would recommend within the administration a more liberal policy on information exchanges.  

Dean's intentions were welcome news to the British. Although Churchill had postponed the large expansion of plutonium production desired by Cherwell, the British government still had plans to expand and wanted American assistance as soon as possible to reduce costs. As explained in the House of Commons, the program called for building a small experimental "breeder-reactor" at Harwell, for the design and development of a full-scale breeder-reactor for the production of electric power, and for the construction of a natural uranium reactor at Harwell for research purposes. As of yet, the government had no sure estimate about when nuclear plants would be available on a "significant scale for industrial purposes." And it had no definite commitment for cooperation with other countries (read, the United
States. It was trying.8

In point of fact, British officials were mapping out proposed areas of cooperation with the Americans. Quite naturally, they wanted any information the Americans would be willing to give in the atomic energy field, especially if it could be used for the urgent development of nuclear power reactors for the production of electric power. But they were also interested in the use of nuclear propulsion. The Americans were working on nuclear propulsion of submarines and other naval vessels and this might be a possible area of negotiation. Another area in which collaboration could reduce costs was testing. Now that Britain had proven it could detonate an atomic device without American assistance, the question of national pride was no longer so important. Provided arrangements for a reciprocal exchange of information were satisfactory, the British government would be willing to agree to joint tests at American test sites. The outlook for this possibility, however, probably depended upon changes in American law. Until that was accomplished, the British government would have to struggle along on its own, or in cooperation with Australia. At any rate, Churchill ordered further steps to allay American concerns about British security. A committee of experts, headed by Lord Waverly (formerly Sir John Anderson), was set up in January 1953 to study plans for the reorganization of the British atomic energy program.9

And then there was the question of consultation on the use of the bomb. Addressing the Royal Institute of International Affairs in March 1953, Sir John Slessor complained that at the recent ten day NATO conference in Paris, discussions about strategic air power had
been completely avoided by the Americans. They, the Americans, had cited the McMahon Act as a barrier to revealing information about the atomic capabilities of the American Strategic Air Command and had referred to the red-baiting activities of Senator McCarthy as a disincentive to a freer discussion of the issue. As a result, only the United States, Britain, and to a lesser extent Canada knew anything about modern strategic air power. Since the Americans alone had a strategic bomber force of any significance, the British had little influence on American nuclear policy and strategic planning. This situation was intolerable. In order to remain a Great Power, Britain too must have a strategic bomber force no matter what the cost. The United States could no longer be permitted to have a monopoly on this "instrument of such enormous, such decisive influence for peace and war." 10

On the American side, the importance of consultation had been raised by a State Department Panel of Consultants on Disarmament which had worked through the last year of the Truman administration to recommend an American negotiating position on the arms race and disarmament. The panel, chaired by Robert Oppenheimer and including among its members Vannevar Bush and Allen W. Dulles, issued its report in January 1953. "No small part of the uncertainty which surrounds the field of atomic weapons," they wrote, "derives from a widespread feeling (among the allies) that the United States is clutching the atom to its bosom and may at any moment get angry and hurl it in the general direction of the Kremlin." Greater cooperation, then, with the allies was needed along with attempts at serious bilateral talks
with the Soviets to reduce tensions. A first step would be communication of information to the allies to give them a greater understanding of the atomic bomb itself. But the panel did not suggest that the American government "tie its own hands and surrender the right to decide for itself, in an emergency, whether and how it will use its atomic weapons." The new administration felt the same way about it.

On March 7, 1953, two days after Joseph I. Stalin died in Moscow, new Secretary of State John Foster Dulles reported to the President about conversations he was having in Washington with Anthony Eden concerning American air bases in Britain, Iran, and elsewhere. Former President Truman, Eden had alleged, had given Churchill a "personal assurance" at the January 1952 meetings that the Prime Minister would be consulted on the use of atomic weapons. He, Eden, and the Prime Minister wanted to insure that Eisenhower would adhere to that agreement. Eisenhower refused to be pinned down. "What they really want to know," he told Dulles, "is that we are not starting a war." As for assurances—well, perhaps Dulles should talk to Bedell Smith (now Under Secretary of State). Smith, he thought, knew more about the past history of talks on the subject of consultation than he, Eisenhower, did. 11

In the early days of the Eisenhower administration, the only area of effective Anglo-American atomic cooperation was in the joint control of raw materials. As in the past, the Combined Development Agency (formerly the Combined Development Trust) proposed allocations for the British, Canadian, and American programs. And, as in the past, the Americans attempted to limit the British share. On April 2, 1953, British Ambassador Roger Makins sent Dulles a letter
requesting a 1953 allocation for the British program of 500 tons of U₃O₈ (uranium ore). Already in the United Kingdom the British had stockpiled 315 tons of unallocated Belgian Congo ore and 110 tons of unallocated Portuguese ore, but the British government preferred not to use this latter source. Instead, it wanted to exchange the Portuguese ore for South African ore of an equal quantity currently in American possession. Learning of the proposal, Rafford L. Faulkner, Assistant Director for Foreign Procurement of the AEC's Division of Raw Materials, objected. Even if the United States agreed to the exchange, the British would still need 75 more tons of ore to reach the 500 ton goal. That would mean that 75 tons of ore from current production would be needed to meet the British request, a transfer of raw materials possibly inconveniencing the American expansion plan. He advised efforts by the State Department and AEC to persuade Sir John Cockcroft or some other British representative now in Washington for negotiations with the Belgians on atomic energy matters that the British should reduce their request by 75 tons.¹²

Any effort to persuade the British to scale back their atomic energy program would, at this point, have been profoundly discouraging to the British. Churchill had such high hopes for cooperation with the Eisenhower administration. And indeed Eisenhower did desire an improvement in Anglo-American atomic relations, though to what extent was still uncertain. He would listen to the advice of the interested parties within the administration and make his decision. Upon receipt of a policy letter from Dean on March 6, 1953 explaining the AEC's position on the development of practical nuclear power (NSC 145), he
decided to have the AEC, State, and Defense Departments put their proposals for major revisions in the McMahon Act before the NSC. This was done on March 11, 1953.  

The day before that meeting, Arneson set out in a memorandum to Dulles what he believed the State Department position should be. He advocated support for the AEC policy of permitting private industry to help in the development of practical nuclear power. The reason was that when the AEC put forward its proposed amendment, the State Department could insert language to "enable the United States to deal with certain foreign governments in this area, not only to assure the continuance of the flow of uranium and other raw materials to the United States from present suppliers, but also to stimulate such a flow from other potential producers." The overall effect would be to improve ties with raw material producing allies and perhaps even cause certain neutral countries to lean toward the United States. Arneson's suggestion found favor with Dulles and became the State Department's official position on June 25, 1953. At the NSC meeting on March 11, 1953, the JCS and DOD revealed that they too wanted to tack on language to the AEC's proposal. Speaking for the JCS, Chief of Staff of the Army General J. Lawton Collins said that the administration should also attempt to get Congress to pass legislation to permit the exchange of certain atomic energy information with the allies if in the interest of national security. Eisenhower thought this, and other proposed changes, good ideas. He asked the AEC to put together legislation combining the different proposals in "non-technical language" for his consideration.
The new administration had other business, of course, besides atomic energy matters. Bogged down in a military stalemate, the United States still allocated precious resources and tens of thousands of American troops to fight the Korean War. As previously mentioned, President Eisenhower was impatient enough with the situation to consider seriously using atomic weapons. Then there was the budget. Plans to cut spending would surely trigger opposition in Congress as members of the House and Senate fought to protect favorite projects. Not even the atomic energy program would be exempt and that would mean friction with the JCAE. In late April 1953, just about the time the members of the JCAE were resolving the chairmanship struggle, the administration decided that it must eliminate both the large ship reactor and aircraft nuclear propulsion programs. Research and development costs, in the context of the overall budget crunch, were just too high. New Secretary of Defense Charles Erwin Wilson was asked, in light of DOD difficulties handling the planned expansion of the atomic stockpile in addition, to review military requirements for atomic weapons and see if cuts in the rate of production were advisable. Although the JCAE later insisted that the aircraft nuclear propulsion program be saved, the administration had made very clear its determination to cut the budget.15

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On June 8, 1953, the President took a public stand on cooperation in the field of atomic energy with the allies. The McMahon Act, he said, had been passed in 1946 when the United States had had a monopoly in the atomic field and had been designed to preserve that
monopoly. Since both the British and the Soviets now had the atomic bomb, the Act was outmoded. It had to be revised in a way which permitted exchanges of information with the allies. Although the British were quick to hail Eisenhower's remarks as vindication of their position that excessive American secrecy had led to unnecessary research duplication, a waste of money and materials, and the loss of valuable time in the face of a common threat, new Chairman of the JCAE Cole showed little enthusiasm for the President's pronouncement. The AEC, he said, could release more information to the allies simply by clearing the transfer with the Joint Committee. He urged caution on exchanges of atomic information, however, and said that there was no need for a change in the law. Acting Senate leader William F. Knowland of California added that there was no chance that new legislation would pass before the end of the current session on July 31, 1953.16

The earliest the administration would be able to put its proposals before the Congress, then, was January 1954, but that did not stop Dean from arguing in the press that greater cooperation with the allies was necessary. He even revealed JCS proposals to give the allies information on the size, weight, and shape of American atomic weapons, weapons effects, and other information concerning the use of atomic weapons in joint defense or retaliation operations. But Dean was replaced by Strauss on July 1, 1953 and the administration's atomic energy legislation now passed into the hands of a man who earlier had been a fervent opponent of cooperation with the British and an intense advocate of maximum security for atomic secrets. The British feared he would prove so again. It is interesting to note
that Strauss had not sought the chairmanship of the AEC. The President had pressed it upon him because he intended the AEC Chairman to be a major policy-maker in his administration and wanted a like-minded Republican in the job. After a search for other acceptable candidates failed to produce someone willing to give full devotion to the post, Strauss accepted.¹⁷

Strauss and John Foster Dulles would be the two most important advisors to the President on atomic energy matters and would view the idea of collaboration with the British far less enthusiastically than had Dean and Acheson. In fact, they would restrain Eisenhower to a certain extent in his desire to make up to the British for their spare treatment by the Truman administration on atomic energy matters. Their sometimes torpid attitude toward improving Anglo-American atomic relations, however, was partially counterbalanced by the vigor of the new members of the JCS (appointed in May to take office later in the summer of 1953). Chairman Admiral Arthur W. Radford and Chief of Staff of the Air Force Nathan F. Twining, in particular, advocated a far more aggressive American attitude in foreign affairs while the United States maintained its huge strategic advantage over the Soviets. Consequently, they viewed cooperation with allies in a far more favorable light and advocated information exchanges on the use of atomic weapons. Despite the different perspectives of his key advisors, the President believed he had chosen men who would further the basic policies of his administration.¹⁸

In mid-July 1953, the JCS considered seeking an interim arrangement to permit exchanging information on the use of atomic
weapons with the allies in the absence of new authorizing legislation. They wanted the AEC to reinterpret the information in question as no longer "restricted data" within the meaning of the McMahon Act and thereby circumvent JCAE opposition. The problem was, however, that Strauss and the AEC might object. Soon to retire General Bradley recommended to Wilson that the DOD seek prior agreement with the AEC to change the information's security classification to avoid the possibility of a clash. But there was another way—perhaps a better way—the desired result of greater cooperation with the allies on the use of atomic weapons might be achieved. The Special Committee of the NSC should be persuaded to petition the Attorney General for a legal ruling that the security provisions of the present Atomic Energy Act did not apply to the DOD in its military application of atomic energy. With such a ruling in hand, the JCS and DOD could exchange information with the allies without having to resort to reinterpretations or even bothering with seeking new legislation from Congress. Granted, a hornet's nest of opposition would rise from the JCAE once the members found out, but the administration was currently struggling with plans to use large numbers of atomic weapons for the defense of Western Europe against Soviet attack. The plans would come to naught unless the JCS had authority to familiarize the allies with atomic weapons and their use.19

Planning to rely more and more on atomic weapons was being made possible by the advance of technology. In 1952, stockpiling had begun on small atomic bombs to be carried by fighters, fighter-bombers, light bombers, and general purpose aircraft operating from forward
airfields and aircraft carriers. There were more advances to come. The military was developing atomic weapons to destroy submarines, subsonic turbo-jet guided missiles with maximum ranges of 500 miles to be deployed in two to five years on land, from submarines, and on surface ships, and ground combat assisting atomic weapons—unguided ground-fired rockets and short-range (75-150 miles) guided missiles—to be ready for deployment in 1953 or 1954. These weapons would supplement the main bomber striking force of B-47's (fully operational at forward bases in 1953) and longer range B-52's and B-60's (fully operational in 1956). But it was clear that the emphasis for the future would be on guided missiles, including guided missiles with intercontinental range.20

In light of these technological advances, and with an eye toward finding a reasonable and economic defense posture as ordered by the President, the NSC conducted a review of United States policy and strategy called Project Solarium. In a memorandum on July 22, 1953, Lay described the three basic alternatives open to the administration. The United States, he wrote, could adopt a strategy of defending only its vital interests in the world, or it could draw a line around NATO and the Western Pacific and repel all aggression which violated those boundaries, or it could attempt to disturb and weaken the Soviet bloc while simultaneously strengthening the free world to "assume the greater risks involved" in such an undertaking. The long-term objective of this latter strategy would be not only to defend American interests but ultimately free from Soviet control the Eastern European satellites and mainland China. The discussion of
the last option included a section on ensuring counter-air atomic
strikes in the event of Soviet attack. In order to preserve a
retaliatory capability, complete atomic weapons would have to be given
to tactical units on foreign soil. Inter-governmental agreements
with NATO allies would probably be necessary.21

Although a final decision on basic American national policy
and strategy was three months away, the British were anxious to talk
right away. While announcing in the House of Commons that Britain
would test its second atomic device in October 1953 in Australia,
Minister of Supply Duncan Sandys declared on July 31 the British
government’s "extreme readiness to have a frank exchange" of atomic
energy information with the United States on a complete reciprocal
basis. Britain, he added, would take steps to assure the security-
conscious Americans that British safeguards would be the same as those
in effect in the United States.22

On August 8, 1953, the cause of Anglo-American cooperation
received an unexpected boost from the Soviets. Premier Georgiy M.
Malenkov announced that the United States no longer possessed a mono-
poly on the hydrogen bomb. Prepared to back up words with action,
the Soviets did explode a hydrogen bomb on August 12. Since the
Soviets had closed the gap between their nuclear program and the
American, confirmation of the Soviet test had a significant impact in
Washington, though not perhaps as dramatic a one as had occurred after
the first Soviet atomic test in the late summer of 1949. Bradley,
now retired as Chairman of the JCS, called publicly for relaxation of
atomic energy regulations to permit cooperation between the United
States and the NATO allies. Of far more importance was the reaction of JCAE Chairman Cole. "I presume," he wrote to the President on August 21, 1953, "that this latest sign of Soviet atomic progress will be reflected in the plans you and your advisors are formulating for more effective defenses against nuclear attack from land or sea." He also gave his support for further steps to expand the American atomic energy program, a policy of releasing information on the effects of atomic weapons to promote greater awareness of the threat, and administration efforts to pursue a prudent international control of atomic energy agreement. But noticeably absent from his list was greatly expanded cooperation on atomic energy matters with the allies. The administration would have to do more to convince him.\textsuperscript{23}

In its first eight months in office, the Eisenhower administration laid the foundation for improving Anglo-American atomic cooperation. The bedrock ideas of a sound, growing economy, stable, prudent defense spending, greater reliance on nuclear weapons in the event of war, and greater cooperation with allies dictated early on a thorough reassessment of American national security policy and the state of atomic relations with the allies. Almost immediately, a consensus began to form among the interested parties that some revision of the McMahon Act to permit exchanges of information with the allies in atomic energy and on the utilization of atomic weapons was desirable. The only question was, would the administration go as far toward complete collaboration as Churchill wanted. Or would it leave untouched the restrictions against revealing information applicable to the design and manufacture of atomic weapons, the production of
fissionable material, and the use of fissionable material for the
production of power. To a large extent, the outcome of the national
security policy review, the ability of the AEC, State, and Defense
Departments to consolidate the consensus, and the opinions of the
members of the now reorganized JCAE would influence President
Eisenhower's decision.

1 Dulles, Telephone Call to Eisenhower, March 7, 1953,
Minutes of Telephone Conversations of John Foster Dulles and Christian
Herter 1953-1961 (Washington D.C.: University Publications of America,
1980), Reel 8, p. 704.

1 Memorandum of Discussion at 131st Meeting of NSC, Wednesday,
February 11, 1953, Eisenhower Library, Eisenhower Papers, Whitman File,
FRUS, 1952-54, 2:236-237; Samuel P. Huntington, The Common Defense:
Strategic Programs in National Politics (New York: Columbia University

2 Huntington, Common Defense, pp. 63-64; Memorandum of Dis-
cussion at Special Meeting of NSC, Tuesday, March 31, 1953, Eisenhower
Library, Eisenhower Papers, Whitman File, FRUS, 1952-54, 2:264-281;
Ambrose, Eisenhower, pp. 50, 94. In late January and early February
1953, the Europeans were urging the United States to deploy more
American atomic weapons to Europe to allow them to control defense
expenditures. The United States had only 16 atomic bombs of 20 kilo-
tons each deployed at this time in Europe.

3 Memorandum for Cabinet Officers and for Heads of Important
Executive Agencies, by Eisenhower, White House, March 3, 1953,
Minutes and Documents of the Cabinet Meetings of President Eisenhower
(1953-1961), Presidential Documents Series, p. 214; Memorandum by
Paul H. Nitze and Carlton Savage of the PPS, Washington, May 6, 1953;
Report to NSC by Special Evaluation Subcommittee of NSC, Washington,
May 18, 1953, PPS Files, Lot 64D563 "National Security, Civil Defen-

4 Green, Government of Atom, pp. 12, 55-56.

5 Memorandum of Discussion at 132d Meeting of NSC, Wednesday,
February 18, 1953, Eisenhower Library, Eisenhower Papers, Whitman
File, FRUS, 1952-54, 2:1106-1109.


8 H.C. DEB. 5, pp. 673-676.


11 Report by Panel of Consultants on Disarmament to Secretary of State, Washington, January 1953, Disarmament Files, Lot 58D133 "Panel of Consultants on Disarmament," FRUS, 1952-54, 2:1056-1091; Dulles, Telephone Call to Eisenhower, March 7, 1953, Telephone Conversations of Dulles, Reel 8, p. 704; Poole, History of JCS, Vol. IV, p. 159 fn. 32. On June 24, 1953, Eisenhower agreed that nuclear components could be sent "to those storages afloat and ashore wherein the decision to so deploy rests solely with the United States."


13 Minutes of Cabinet Meeting, March 6, 1953, Cabinet Meetings of Eisenhower, pp. 211-213.


18 Note by the Secretaries to JCS on Military Objectives to be Provided for in Proposed Atomic Energy Legislation (JCS 2172/20), December 14, 1953, CCS 471.6 (8-15-45) sec. 46, RG 218, Central Decimal File 1951-53, Box 170, Modern Military Branch, National Archives.


"In many ways, he's just a little Peter Pan."

--Dwight D. Eisenhower on Winston Churchill, October 23, 1953

In early September 1953, with the news of the Soviet hydrogen bomb test fresh in his mind, President Eisenhower contemplated a future of growing American and Soviet nuclear stockpiles, perhaps an increased danger of war, and certainly increased risk to the United States. Programs to defend the country and develop civil defense, he must have reflected, would not be completely effective once the Soviets accelerated nuclear weapon production and devised delivery systems to carry those weapons. They might not work at all if the Soviets perfected the technology for intercontinental ballistic missiles. Nor did the prospects for disarmament look promising. The Soviets had consistently refused to agree to an adequate system of inspection and verification to insure compliance with any proposed agreement and gave no intimation they would do so anytime soon. No, this dilemma required a different kind of solution. If only the fissionable material the superpowers were using to make weapons could be turned to peaceful uses, the waste of a nuclear arms race might still be avoided. It was an idea that Eisenhower continued to think
about until he developed the Atoms for Peace plan in early October.¹

While the President brooded about great issues, the British opened another front in the campaign to persuade the United States that Britain too was a factor in the nuclear age. At a defense exhibition at Farnborough air base early in September 1953, the British showcased their new highly advanced Delta-winged jet fighters and bombers. They let it be known, in addition, that they had made progress in the development of guided missiles for both offensive and defensive missions and of "certain mechanisms" associated with atomic bombs. While American observers were permitted to attend the exhibition, they were denied hard information on the new weapons, presumably because the British were holding back those secrets as bargaining chips to achieve a quid pro quo from the United States on atomic information. The British moved swiftly to capitalize on the curiosity aroused by the Farnborough demonstrations and press speculation. In late September, Cockcroft and Sir Christopher Hinton, Deputy Controller of atomic energy production in the British program, arrived in North America for technical discussions with the United States and Canada. At the same time, the United States agreed to send two B-29 "Flying Laboratories" to assist in Britain's upcoming atomic tests at the Woomera rocket range in Australia. The planes would help obtain final data on atmospheric conditions so that the British could set and plan the exact time of their test in October. As with the first British test, no American observers would be permitted, but British officials intimated that the two devices exploded at Woomera would reveal certain technical information not yet possessed by the United States. Whether true or
not, such statements were obvious attempts to heighten American interest in exchanging information and to improve the British bargaining position.\textsuperscript{2}

The talks in Washington gained added importance with the arrival in early October 1953 of Lord Cherwell. In meetings with Strauss, LeBaron, Assistant Secretary of Defense for International Affairs Frank Nash, and General Alvin Luedecke, Cherwell, Cockcroft, and Roger Makins asked the Americans for a more liberal interpretation of the McMahon Act. The Americans were willing to give a little. Although the prohibition against exchanging weapons information was inviolate, Strauss reminded them, he did favor communicating non-weapons data, including the effects on certain targets of blast, heat, and radiation resulting from atomic explosions. He was able to get all the members of the JCAE to approve this exchange by telephone and finalized the agreement after another meeting with Cherwell in early November. Cole told the newspapers he was now ready to support a greater exchange of information on the atom and atomic weapons with at least "the top people of our allies."\textsuperscript{3}

With the JCAE coming around to the idea that atomic weapons developments, progress by the British, and Soviet acquisition of the hydrogen bomb made greater collaboration with the allies a necessity, the only question remained how much cooperation would the Joint Committee approve. Some sentiment existed on the State Department's Policy Planning Staff to push for the maximum amount. Because the Soviets were making such rapid progress, Charles C. Stelle wrote to PPS Director Robert R. Bowie, a situation of "atomic plenty" and "atomic
stalemate" was approaching in which the United States could still be confident of its ability to deter Soviet attack because it had so many nuclear weapons. But the allies might be concerned that the United States, realizing the power of the Soviets, might not retaliate automatically against the Soviet Union should the Soviets attack one or all of the NATO allies. This feeling of atomic insecurity could only be alleviated by possession by the allies of their own deterrent capability. It might be a good idea, then, for the United States to give the allies atomic weapons or the technical assistance to build atomic weapons if such assistance were deemed in the national interest and if a program of this kind would result in the elimination of the threat of Soviet atomic blackmail against Western Europe. Although the United States would still have to determine whether the danger of leaks, and the danger of giving recipient countries the power to destroy the United States, was too high or not, this kind of cooperation with the NATO allies could be politically useful. It could provide the United States with added leverage on such issues as Franco-German relations and German rearmament, Swedish neutrality, Japanese rearmament, and the desire of the Republic of Korea for Korean unification.4

On October 30, 1953, the President approved NSC 162/2 as a new statement of American national policy and strategy. In order to meet the threat posed to United States security by the Soviet Union, and to do so without "seriously weakening the United States economy or undermining our fundamental values and institutions," the United States had to emphasize in its military posture the massive retaliatory
capability and deterrent effect of American offensive striking power. In conjunction with the allies, in addition, the United States had to maintain an adequate level of readiness to counter Soviet attacks, hold vital areas, and keep open lines of communication. The American mobilization base had to be preserved and protected.  

Reliance on American strategic air power, the document went on to read, and nuclear weapons generally would continue to require overseas bases. In a war, the United States would "consider nuclear weapons to be as available for use as other munitions." That meant that the United States needed advance consent, where such consent was required, from foreign governments to launch atomic strikes and otherwise use nuclear weapons from foreign bases. The administration, therefore, should pursue such understandings by diplomatic means and secure prior allied consent (for such actions) where possible. Cooperation of allies was important in one other respect. Since the United States was shifting to reliance on its nuclear deterrent, the allies would have to assume a greater share of the ground combat burden. Germany and Japan would have to be rearmed, even over the objections of France and others. Overall, the key to the new strategy was providing an adequate defense while maintaining a sound and growing economy over the long pull. Accomplishing this goal would probably require "redeployments" of American combat troops from Western Europe and Korea to the continental United States.  

Adoption of NSC 162/2 had important implications for American atomic weapons policy. The intention to rely primarily on strategic air power and tactical atomic weapons to deter aggression, and to use
those weapons immediately if the Soviets attacked, made it necessary to transfer custody of more, if not all, atomic weapons to the DOD. The State Department approved such a transfer. But it did not believe the military should have the right to use nuclear weapons automatically in all situations—especially not in limited or localized wars. It wanted the President to decide on a case by case basis when to authorize use, though in certain cases like an atomic Pearl Harbor, automatic use would be appropriate.7

The new national security policy also gave greater urgency to administration efforts to put into effect collaboration with allies on the use of atomic weapons. But there was still the limiting factor of JCAE oversight to consider. Despite Cole's declaration of support for moderate improvement in cooperation, he and most of the members of the committee were far from convinced that the restrictions of the McMahon Act ought to be relaxed to the extent desired by some within the administration. They still rigidly opposed, for example, giving atomic weapons or information applicable to the design and manufacture of atomic weapons to Britain or the other allies. Nor did they see any longer a critical need to cooperate with the British on the control of raw materials. Although the American atomic energy program could consume all domestic and foreign sources of uranium as they became available, Director of the AEC's Division of Raw Materials Jesse C. Johnson told a Special Senate Subcommittee on Minerals, Materials, and Fuels Economic on November 12, 1953 in Salt Lake City, Utah that the United States was no longer a have-not nation in uranium. Production from the Colorado River Plateau was increasing and new supplies had
been discovered in Wyoming, Idaho, and Nevada. This favorable progress report did not satisfy Subcommittee Chairman George C. Malone (R, Nevada), author of his own study (1953-54) on raw materials and Western hemispheric self-sufficiency. A member of the anti-internationalist wing of the Republican party, he complained that in the event of war, the United States would have a hard time shipping uranium from the Congo across the Atlantic Ocean. He pressed Johnson to guarantee that the AEC's Raw Material Division was doing all it could to find additional domestic sources. Lastly, he made clear that he believed the United States could quickly become self-sufficient in uranium. Since Senator Eugene Milliken (D, Colorado) was a member both of Malone's subcommittee and the JCAE, the Joint Committee was fully informed as to the raw material situation.

Now that the administration could no longer use joint control of uranium as an overriding reason for maintaining (and improving) atomic energy ties with the British, cooperation for the common defense and security became the main theme. Fears about leaks through the British program to the Soviet continued to persist in congressional minds, however, as did another concern. The members of the JCAE suspected that the British would use an exchange of information to facilitate construction of power reactors to the point where—while the United States was concentrating on building up a larger and more diverse stockpile of bombs—the British would gain a competitive advantage. This belief was based on the fact that the British were placing ever greater emphasis on the development of atomic energy for commercial and industrial purposes. Under construction in Britain was a
breeder-reactor designed to produce 50,000 kilowatts of electricity a day. Although the AEC was building a breeder-reactor with a 60,000 kilowatt capacity, the British were slightly ahead. Many members of the JCAE, especially Democrats, blamed this state of affairs on the administration's plan to encourage the development of atomic power by private enterprise. If the AEC had been given the proper encouragement and resources, they thought, American development of power reactors would be second to none. 9

In early November 1953, a December conference in Bermuda between President Eisenhower, Prime Minister Churchill, and French Premier Joseph Laniel was arranged to discuss the EDC idea, Germany, Iran, and other topics of interest. It was anticipated by the Americans that Churchill would want to hold private discussions with Eisenhower about atomic energy. The prospects for effecting greater Anglo-American atomic cooperation depended, of course, on the administration persuading the JCAE and Congress to amend the McMahon Act to permit wider exchanges of restricted data. At a meeting of the NSC on November 12, Strauss reported that he anticipated favorable action on an amendment, but before the JCAE would approve and the Congress pass the required legislation, the British would have to complete improvements already begun on their security system. The Canadians, he said, posed no problem in this respect since their security system was as effective as the American. 10

The British had waited a long time for improvement in Anglo-American atomic relations and intended, the Americans learned, to press vigorously for greater cooperation. Paralleling the American approach,
they planned to shift away from the previous emphasis on the mutual advantages of exchanging information to arguments which focused on the danger posed to the collective security of the West by Soviet nuclear development. The Soviet success with the hydrogen bomb made a combined effort by the United States and Britain to deter Soviet aggression all the more important. And since the Soviets had progressed so far, the added security risk created by a complete exchange of atomic energy and atomic weapons information was acceptable. Although Churchill and his advisors realized the administration would be unable to agree to a pooling of British and American efforts on atomic energy until Congress passed amendments to the McMahon Act, they planned to ask at the conference for detailed information on the scope of the amendments Eisenhower would put before Congress and the prospects for passage. If the proposals did not provide for a significant improvement over the kinds and amount of cooperation agreed to in the Modus Vivendi of January 7, 1948, they would object. Indeed, Makins told the State Department on December 2, 1953 that the Prime Minister still held very hard feelings about the postwar decision by the Truman administration to abandon cooperation. But that unpleasantness, he added, was all in the past and the two allies should look to the future. Another matter the British intended to raise was the question of raw material supplies. British stocks had been reduced by attrition over the years so that they now covered only current operating needs. Since both the United States and Britain were pursuing industrial atomic projects (power reactors), it might be necessary to discuss further ways and means of increasing the supply, and/or
of reallocating projected supplies.\textsuperscript{11}

On November 18, 1953, Strauss forwarded to the President a summary of the proposed major revisions of the McMahon Act. The legislation pertaining to disclosure of atomic energy information to selected allied governments was subsequently set out in detail in NSC 151/2 and approved by the President on December 4, 1953, the day before the start of the Bermuda conference. By permitting greater cooperation with the allies on atomic weapons matters, the document declared, the administration hoped to enable the allies to "participate intelligently in military planning for their own defense and in combined operations with the United States." Such cooperation would, moreover, "inspire them to act with the United States in crises and thus give the United States greater freedom of action to use atomic weapons as required." Lastly, a better understanding of atomic weapons would allow the allies to take precautions to protect government officials and the general population in the event of nuclear attack. NSC 151/2 also called for a wider exchange of information. The result could only be an improvement of free world development of atomic energy vis-a-vis the Soviet Union. But even if new legislation did not have this latter effect, it would still permit the United States to continue cooperation with the British and Canadians on atomic intelligence, work for the joint control of uranium, and broaden out cooperation under the fields of the Modus Vivendi.\textsuperscript{12}

At present, only six of these fields were active—health and safety, isotopes, detection of distant nuclear explosions, fundamental properties of reactor materials, extraction chemistry, and low-power
reactors—and in some of these cooperation had been incomplete. The Cyril Smith affair of July and August 1948 had resulted in actions by the JCAE to prevent discussion with the British on the basic metallurgy of plutonium, information coming under the fundamental properties of reactor materials heading. In the remaining three fields, the British and Americans had held many talks but had always been unable to come to an agreement for active cooperation. This was particularly true of the field of nuclear and extra-nuclear properties of the elements. Likewise, they had come close—even to the point of beginning cooperation—on the design of power reactors, but abandoned the attempt, probably because of the potential for commercial rivalry.¹³

But the main purpose of an amendment on exchanging information with the allies would be to permit greater knowledge on the use of atomic weapons. Recently, the JCS had given some information (none considered restricted under the McMahon Act) to allied commanders and certain key staff officers in the Supreme Headquarters, Allied Powers Europe on a strictly need-to-know basis. They had been told the number of American atomic weapons available for the tactical defense of Western Europe, the fact that they were all of the airburst variety, and that they averaged 20 kilotons of explosive power a piece. Under the proposed legislation, the administration intended to be more exact. The allies would be told specific kilotonnages, numbers of weapons within the various yield ranges, the tactical use the United States was planning to make of these weapons, and the estimated results military use would have. Since these were all factors impacting directly on NATO planning, the information would be transmitted through military
channels to reduce leaks. Problems, at least in terms of relations with the British, remained. Expressly excluded from the proposed exchange was information on the design and manufacture of atomic weapons, on the numbers of atomic/nuclear weapons in the past and present American stockpile, on the total atomic capability of the United States (to produce weapons and engage in other atomic energy activities—information necessary to assess raw material requirements), and specific deployments of atomic weapons, except as required to obtain consent of a country to deploy within that country.\(^{14}\)

Ominously, a dispute between the AEC and DOD over the meaning of "restricted data" as defined in the McMahon Act threatened to make the proposed new legislation almost useless as a vehicle to transmit more information to the allies. As originally drafted, restricted data had been defined as "all data concerning the manufacture or utilization of atomic weapons, the production of fissionable material, or the use of fissionable material in the production of power." Now the administration proposed to revise that definition to exclude the words "or utilization of atomic weapons." While the DOD believed this deletion would give it authority to make the desired exchanges, the AEC had begun to worry that information on the utilization of atomic weapons would reveal information about the design and manufacture of atomic weapons. Despite the proposed change, then, the administration would still be legally barred from exchanging information on the tactical and strategic use of atomic weapons in the defense of NATO. And in light of the past history of internal administration policy debates on atomic energy matters, it would be very
difficult to keep the AEC-DOD quarrel out of earshot of the members of the JCAE.¹⁵

Unaware a complication might be brewing inside the simmering kettle of his administration, President Eisenhower went to Bermuda on December 5, 1953. He had mixed emotions. Although he himself favored sharing with the British not only the results of past American research but also atomic weapons, means of delivery, and strategy, he understood that full and effective cooperation was politically impossible. He would have to hide his true feelings and confine words and actions to the limitations set by NSC 151/2. He approached the conference apprehensively for one other reason. Churchill was reported to be almost deaf, reduced in stamina to the point where he worked mainly in the mornings, and increasingly unrealistic about both his own age and Britain's status in the world. He still believed his country a Great Power. If the Americans did not agree to significantly improved Anglo-American atomic relations, Eisenhower worried, the Prime Minister might become difficult. It was very important, then, to project optimism about the possibility of improvement while politely holding the line against commitment.¹⁶

At a late morning meeting on the first day in Eisenhower's quarters at the Mid-Ocean Club, therefore, the President responded to a predictable Churchillian plea for a resumption of full-scale cooperation by quoting chapter and verse of the McMahon Act. He himself was personally sympathetic to the Prime Minister's position, he assured, but his authority to act was limited by the law. Still, he promised to take steps to get the Congress to pass an amendment to the McMahon
Act when the next session began in January 1954. As proof of American good will, he cited the recent exchanges arranged by Strauss and Cherwell. Dreading the Prime Minister's reaction, he was pleasantly surprised to find Churchill reasonably vigorous and mentally alert. The old man appeared to realize that Britain was not dealing from a position of strength. Tacitly admitting that the British program had yet to, and would not in the near future, produce a sizeable stockpile of atomic bombs, he offered that in the event of war with the Soviets, the United States would probably want British planes to assist in the retaliatory strikes against the Soviet Union. But currently, the new British V-bombers were being designed and built with no proper knowledge of the characteristics of American atomic bombs. The Royal Air Force needed to know at minimum the weight, dimensions, and ballistics of American bombs to build compatible bomb bays and release mechanisms into British planes. Bomb bays and release mechanisms had so far been designed to handle only British-made atomic weapons. Strauss handled the reply. The weight, dimensions, and ballistics of American bombs, he said, was basic weapons data. He was sorry but that information could not be provided. The Prime Minister experienced a moment of exasperation. Britain, he confessed, could not afford to spend so many millions of pounds to learn what the United States, its closest ally, already knew. This non-communication between friends made no sense at all because Britain and the United States were faced by a common, very dangerous enemy. Cherwell nodded in agreement. Collaboration was essential to maximize their strength. But the Americans need not tell all they knew. Because British strategists believed one or two megaton
booster fission bombs were sufficient for almost all targets the British would want to attack, the British government had no intention of developing the hydrogen bomb. The administration need not contemplate revealing information in the thermonuclear area. The Americans would not reconsider. Exchange of basic atomic weapons information was expressly forbidden by the McMahon Act, they reiterated, and there was no possibility Congress would agree to lift the restriction.\(^{17}\)

The discussion moved on to other atomic energy questions and Churchill tried to salvage what he could. After agreeing with Eisenhower that atomic weapons—in principle only—should be regarded as a proper part of conventional armaments, he inquired about a greater exchange of information concerning intelligence on enemy weapons and capabilities. Already the two allies were exchanging raw intelligence information and some finished intelligence reports on the Soviet atomic program. Under the October 30, 1951 amendment, in addition, the United States had transmitted information pertaining to certain materials used in intelligence collection. Why not go the full way? Once again, Strauss had to disappoint him. The United States, he explained, could not exchange information on evaluation methods for intelligence data because evaluation was done in terms of existing American nuclear weapons. Thwarted on all his major objectives, Churchill startled the Americans by producing suddenly the British copy of the 1943 Quebec Agreement and declaring that he wanted to publish it and all related documents. The idea was to reveal to the world and the American Congress the full extent of Anglo-American wartime cooperation in the field of atomic energy and so build public
support for a return to collaboration. Eisenhower groped for words. He could only think to suggest that Strauss prepare a White Paper on the subject with Cherwell's assistance.\(^1\)

Perhaps it was Bermuda's warm climate or perhaps the stimulating environment of a major international conference, but Churchill refused to give up on making some kind of progress on atomic energy. On the morning of December 7, 1953, he handed Eisenhower a memorandum written by Cherwell expressing the British government's desire to extend interchanges on intelligence regarding Soviet nuclear tests. A little later in the day, he gave the President a second note, this time reminding Eisenhower that Strauss and Cherwell were to compile a White Paper of documents to tell the story of Anglo-American relations about the atomic bomb. He and the President would then consider whether to publish. He intimated that he expected the President to agree since they both desired a greater interchange of information and believed that secrecy was "evaporating the growth of knowledge between us."\(^2\)

Although Churchill had at the December 5, 1953 meeting agreed to the principle that atomic weapons be considered as a proper part of conventional weapons, he and his advisors (and the French, too, when the Americans raised the matter with them) resisted stubbornly automatic use of atomic weapons. They disliked the idea even in the event Communist forces struck again in Korea—unless the U.N. allies of the United States agreed in advance. American use of atomic weapons, the Prime Minister emphasized, even in Korea might cause the Soviets to retaliate by "attacking the population centers of the
British Isles." Although he and his advisors continued to insist the United States agree to consult in such crisis situations, the Americans refused to renounce their "right to use atomic weapons if war were forced upon us by the Soviets."20

The strong position taken by the Prime Minister, Eisenhower told the NSC on December 10, 1953, was motivated mainly by political considerations. In his last talk with Churchill in Bermuda, he confided, the Prime Minister had said that he was more concerned that the United States not announce its proposed automatic use of atomic weapons in the event of a Soviet attack than opposed to the American intention and planning to actually use atomic weapons if necessary. Telling the world the United States and its allies would resort so quickly to atomic weapons, especially in light of Eisenhower's U.N. speech (given on December 8, 1953) on the peaceful uses of atomic energy, would be a terrible political mistake. Eisenhower thought he had a temporary solution. The United States would continue to count on use of atomic weapons in the defense of Western Europe but would have the British and American Chiefs of Staff meet privately and discuss planning. Since Europeans generally thought of the use of atomic weapons as the "gateway to annihilation," not as a "great new source of defensive strength" like the Americans, no further mention would be made of it for the time being to the French or other Western European governments. Nor would the United States mention redeployment of troops from Western Europe and Korea to the continental United States. Statements on that topic might tip the American hand on use of atomic weapons, or conversely, send a false signal that the United
States was backing away from its commitment to Western European security. Such statements would certainly complicate negotiations on EDC ratification. Four days later at the NATO conference in Paris, Secretary of State Dulles managed both to send the wrong signal and complicate the EDC negotiations. Angered by NATO failure to meet agreed military commitments, he warned that unless a European army was approved soon, the United States would undertake "an agonizing reappraisal" of basic American policies.21

As he had indicated at his first meeting with the President at Bermuda, the Prime Minister was placing great emphasis on the perception of cooperation. If the Americans would agree to publication of the Quebec Agreement, for example, this would contribute to a better public and political atmosphere in which to press for actual Anglo-American collaboration on atomic energy. Churchill also held out hope that Eisenhower's Atoms for Peace speech to the U.N. General Assembly on December 8, 1953 would stimulate public and congressional acceptance of the idea of cooperation. In that speech, Eisenhower had proposed disarmament negotiations and that the United States, Soviet Union, and Britain contribute "X" amount of fissionable material to a U.N. organization for peaceful uses.

The initial international reaction to the speech was highly favorable, but the Prime Minister was unwilling to sit back and let what little momentum had been carried out of the Bermuda conference evaporate over time. He immediately set to work drafting a speech to the House of Commons on the progress made at the conference and transmitted an advance copy to the President for his comments on
December 16, 1953. He wanted to accentuate the positive, he wrote. He would say in Parliament that Cherwell and Strauss had made progress in the autumn on the proposed exchange of some information about the effects on various targets of atomic explosions and that an agreement had been confirmed at Bermuda. The British and Americans, his speech went on to read, hoped to enlarge exchanges of information on intelligence matters so long as the exchanges did not infringe on the McMahon Act. In any event, Britain knew almost as much as the Americans. This would also be implied when he announced that Strauss and Cherwell (who were "very good friends") were preparing a record of the history of Anglo-American cooperation in the atomic field. The President and he himself would consider it for publication. Eisenhower pointed out two problems with the draft. First, the Cherwell-Strauss discussions of October and November had produced an agreement several weeks before Bermuda. The agreement had been "firmed and announced" at that time. Second, the Prime Minister was perhaps revealing too much information about Strauss's and Cherwell's chore of drawing up a history of Anglo-American cooperation on atomic energy. He, Eisenhower, reaffirmed the commitment to draw up such a White Paper but wanted the Prime Minister to be more general. Churchill was not inclined to rewrite in any significant manner the offending passages. His speech, given before the House of Commons on December 17, stated that the agreement to exchange information on the effects on various targets of atomic explosions had been "ratified" at Bermuda, that this was "definite progress" from the British point of view because the United States had already conducted 43 atomic (and nuclear) tests and the British only three, and that
Cherwell and Strauss would indeed draw up a history of Anglo-American cooperation in the field of atomic energy for the President and himself to consider for publication.22

While all British officials wanted cooperation between the United States and Britain on atomic energy matters, only Churchill wanted to insist on publication of the Quebec Agreement and the subsequent history of postwar atomic relations. Eden and Cherwell, for example, had indicated privately (at the Bermuda conference) that they took a "dim view of the enterprise" and would rather not have it done. Ambassador Makins spoke afterwards in the same vein. These men saw no advantage in publishing "ancient history" and in the process recalling if not reviving British bitterness about Truman administration policy. They wanted instead to get on with the job of improving the present relationship. Cooperation would come only if both the Eisenhower administration and British government emphasized the present need for greater exchanges of information for the furtherance of their collective security. Nevertheless, Churchill felt so strongly about the matter that the AEC staff began work on a first draft. By late January 1954, the draft was complete and given to the State and Defense Departments for their review. The administration was in no hurry to complete the task.23

The administration moved much more quickly to build public support for changes in the McMahon Act. On December 16, 1953, the day before Churchill read his speech to Parliament, Eisenhower declared at a press conference that he wanted wider authority from Congress to decide what information, materials, and weapons could be exchanged
with allies. He wanted, further, to be free to tell the allies how to use atomic weapons and how to protect themselves from atomic attack in the field of battle, and even left ambiguous the question of giving the allies atomic weapons themselves depending on the circumstances—for example if the allies ratified and successfully implemented the EDC treaty. In an effort to persuade the Congress to give him the proposed authority, he met with congressional leaders at the White House on December 18 and 19. Predictably, Senator Hickenlooper declared his adamant opposition to "giving away our atomic secrets to any foreign countries," but the majority believed that the President did have a good case to make for the revision of the McMahon Act. Although the administration was winning its battle to improve atomic energy cooperation with Britain and the NATO allies, the extent of its victory was still in doubt.24

The Bermuda conference was yet another demonstration for the British of their limited ability to influence American policy. Although the administration naturally had to formulate proposed changes to the McMahon Act with the expectation that the JCAE and Congress would give short shrift to plans for a rapid, leaky disclosure of American atomic secrets, the real determinants of its negotiating position were the policy conclusions of NSC 162/2 and NSC 151/2. In order to shift to a strategy for the defense of Western Europe based upon the early tactical and strategic use of atomic weapons, the United States needed the cooperation of its allies. In order to cooperate, the allies required information on the utilization of atomic weapons. But Eisenhower and especially Strauss, the President's key
advisor in the atomic energy discussions, would go no further. Churchill's argument that Soviet, and British, progress in the nuclear field made the basic restrictions of the McMahon Act against exchanging atomic weapons and fissionable material information obsolete impressed the President but did not persuade him. Emphasis on security considerations was still very important to American policy-makers and to the members of the JCAE. Also important, even vital, was maintenance of the President's freedom of action on the use of nuclear weapons. Not only must he remain absolutely unfettered in order to launch an immediate retaliation against the Soviets in the event of a surprise attack, he must also be free to order American atomic retaliation should the Soviets confine their attack to Western Europe. Since this policy was consistent with the new strategy detailed in the national security documents, the Americans resisted British attempts to win the right of consultation. If Churchill and his advisors could take some satisfaction in the knowledge that the Americans were at last serious about seeking changes in the McMahon Act, they still had to ask themselves how great an impact those changes would have for Anglo-American atomic relations.

*Ambrose, Eisenhower, p. 146.

1Strauss, Men and Decisions, pp. 356-357; Pringle, Nuclear Barons, pp. 121-122.

2New York Times, September 14, 1953, p. 3; September 16, 1953, p. 4; September 25, 1953, p. 3; September 27, 1953, p. 5.


Ibid.

Memorandum by Under Secretary of State Bedell Smith to Eisenhower, Washington, December 3, 1953, PPS Files, Lot 64D563 "NSC 153-162 September-December 1953," FRUS, 1952-54, 2:607-608; Telephone Conversation between Dulles and Wilson, December 22, 1953, Telephone Conversations of Dulles, Reel 1, pp. 766-767. Meetings took place on December 22, 1953 between Dulles, Wilson, Bedell Smith, and Strauss to discuss conditions under which the United States would use atomic weapons, how to deploy them, and the question of whether and when to consult with the allies. Strauss wanted the AEC, State, and Defense Departments to draw up proposals.

"Stockpile and Accessibility of Strategic and Critical Materials to the U.S. in Time of War." Hearings by the Special Subcommittee on Minerals, Materials, and Fuels Economic of the Committee on Interior and Insular Affairs, U.S. Senate, 83rd Congress, 1st and 2d sessions; Eckes, U.S. and Global Struggle for Minerals, pp. 201, 204-212. An intensified stockpiling program by the Eisenhower administration in 1954 and afterwards stimulated private industry exploration and discovery of many needed raw materials, including uranium, and American dependence on foreign sources of uranium diminished as a consequence.

520 H.C. DEB. 5, pp. 586-587.


Note by the Secretaries to JCS on Military Objectives to be Provided for in Proposed Atomic Energy Legislation (JCS 2172/26), December 14, 1953, CCS 471.6 (8-15-45) sec. 46, RG 218, Central Decimal Files 1951-53, Box 170, Modern Military Branch, National Archives; Report to NSC by Lay (NSC 151/2), Washington, December 4, 1953, S/S-NSC Files, Lot 63D351 NSC 151 Series, FRUS, 1952-54, 2:1256-1285.

Ibid. In reprinting the document, the State Department apparently edited out information on the present state of U.S.-allied discussions on the question of consultation on the use of the atomic bomb and on use of allied bases for atomic operations.

Ibid.

Ambrose, Eisenhower, pp. 145-146.


Ibid.


"I ask that authority be provided to exchange with nations participating in defensive arrangements with the United States such tactical information as is essential to the development of defense plans and to the training of personnel for atomic warfare. Amendments to the definition of 'restricted data' recommended later in this message will also contribute to needed administrative flexibility in the exchange of information with such nations concerning the use of atomic weapons."

--Dwight D. Eisenhower, February 17, 1954

The challenge facing the administration in 1954 was to propose changes to the McMahon Act necessary to improve cooperation with the allies for the defense of Western Europe without going too far and alienating Congress. Many, including Chairman of the JCAE Cole, were convinced that new legislation ought to be passed, but only if restrictions on exchange of the most important atomic secrets—atomic weapons information, at the very least—were left intact. They also wanted assurances that the British and others would protect American secrets and that the administration had adequate means of verifying that this was being done. If these conditions could be met, the likelihood that Congress would amend the McMahon Act before the end of summer was high.

Only progress in disarmament talks with the Soviets or Soviet agreement to adhere to the President's Atoms for Peace idea (and
thereby match the amount of fissionable material the United States intended to contribute to an international pool of material for peaceful uses) could have changed the basic international conditions which necessitated formulation of the new nuclear strategy. American policy-makers did not expect either of these contingencies to occur. So long as the Soviets refused to allow adequate inspection and verification of proposed arms reductions, nuclear and conventional, no disarmament agreement was possible. Nor did it seem that the United States and the Soviet Union, even in direct, bilateral talks, could come to agreement on the terms of a disarmament treaty. The Soviets wanted atomic disarmament only without conventional disarmament and had responded to the President's December 8, 1953 speech to the U.N. with a public call for the banning of the use of atomic weapons. Since NATO did not have the conventional military strength to deter a Soviet attack, the United States could agree to neither of these proposals.¹

While Secretary of State Dulles met in Berlin from January 25 to February 18, 1954 with the Foreign Ministers of Britain, France, and the Soviet Union to discuss the problems of Germany and Austria, Eisenhower prepared a special message to Congress on atomic energy. He gave the address on February 17. Using rhetoric Churchill would have heartily endorsed, he declared that because the American atomic monopoly had disappeared in 1949, and in light of the fact that the Soviets were now catching up to the United States in the nuclear arena, the McMahon Act was now obsolete. The Congress should agree to lift restrictions inhibiting exchanges of information pertaining to
use of and defense against atomic weapons. This would permit the United States and its allies to develop joint defense plans and arrange for training of allied personnel for atomic warfare. But the administration did not want a blank check to reveal atomic weapons data. The President assured Congress that exchanges of restricted data would be regulated according to the importance of the information being transferred, specific uses which could be made of it, the contribution it would make to the common defense, and the ability of the recipient foreign government to provide adequate security standards and practices.²

In order to insure that information was protected according to the required security standards, Eisenhower wanted responsibility for safeguarding atomic energy information transferred from the AEC to the DOD. The DOD could presumably make security arrangements more easily and effectively with the military establishments of foreign governments than the AEC. In his speech, the President went on to ask for amendments to the McMahon Act to permit cooperation on the exchange of "restricted data" for the industrial applications of atomic energy. He also requested authority to release fissionable material in amounts adequate for industrial and research use. These amendments would permit the United States to carry out the President's Atoms for Peace plan. Not in the speech but another motivation for information exchanges on the industrial applications of atomic energy was a desire by the DOD to assist the British in the development of nuclear-powered ships—technically within the category "industrial applications of atomic energy." Since British naval power was important in the event
of war for the control of the sea lines of communication between the
United States and Western Europe, NATO's ability to defend against
Soviet submarine attacks could only be enhanced by nuclear-powered
British submarines and ships on patrol in the Atlantic Ocean and
North Sea.  

While the JCAE went to work holding committee hearings on
the proposed amendments to the McMahon Act, the British House of
Commons debated in March 1954 the defense budget and the advisability
of the government's plans to build up the British atomic deterrent.
Although some Labor members of Parliament decried the expense of
building bombs and equipping the Royal Air Force with V-bombers to
deliver them, the majority clearly wanted to provide full funding for
the British atomic energy program. There was greater opposition,
however, to the proposed strategy for the early use of atomic weapons
in the defense of Europe. Several days after Dulles, on March 16, said
that the NATO and Rio Treaties gave the President the power—without
consulting Congress—to order instant retaliation in Europe and the
Western Hemisphere if an ally was attacked, the Prime Minister was
asked directly whether Eisenhower would consult with Britain before
using atomic weapons in the event of all-out war in Europe, or if he
would consult should the United States only be attacked and American
retaliation originate in part from U.S. Air Force bases in Britain.
Referring to the language of the January 9, 1952 communique from his
talks with President Truman, Churchill would say no more about the
matter.  


The Prime Minister and his Cabinet might very well have escaped with no more probing questions had not the world's and the British public's fear of nuclear war been brought to the surface by an event in the middle of the Pacific Ocean. American hydrogen bomb tests in the Marshall Islands March 1 and March 26, 1954 resulted in the accidental contamination of a Japanese fishing vessel and its crew. Although the Japanese boat had apparently strayed inside the warning range, the repercussions for the United States were severe. The world, Dulles told Strauss over the phone, believed that due to the enormity of thermonuclear explosions, the United States was using vast areas of ocean for its tests. In Britain, many people feared that a few hydrogen bombs might suffice to destroy most of the British Isles. Appeasement talk was in the air. In Parliament too the debate revived. Churchill came under intense pressure to ask the United States and Soviet Union to postpone further nuclear tests. The members wanted to know, moreover, whether the British government had any intention of developing hydrogen bombs. All this agitation caused the aged Prime Minister great unease. Assuring the members that the Americans were taking extra precautions to prevent a repeat of the accident, he appealed openly for restraint. The American Congress was currently examining Eisenhower's proposals for changes in the McMahon Act and he, Churchill, feared that too harsh criticism of American hydrogen bomb tests would damage the favorable atmosphere for passage in Washington.5

Because the Labor party would not let up, Churchill was forced to schedule a speech on April 5, 1954 to clear up misconceptions
about the hydrogen bomb. Using nontechnical information provided by Eisenhower, he attempted to put to rest the exaggerated fears of the British public. He also tried to revive awareness of the importance to Britain of atomic ties with the United States. His method was to disclose the provisions of the Quebec Agreement of 1943 without mentioning the Modus Vivendi of 1948 and its provisions canceling the British right of consultation on the use of atomic weapons. Reaction in Washington was swift. Almost immediately, Senator Hickenlooper revealed that the Quebec Agreement had been nullified in 1948. The next day, April 6, the administration confirmed Hickenlooper's statement. Nor had Churchill's pronouncements had the desired effect in London. Labor members of Parliament embarrassed the Prime Minister by forcing him to admit that the Americans had permitted no British observers at the recent hydrogen bomb tests. His remark that the Americans had allowed a Royal Air Force flight in the vicinity hours after the explosion to collect data seemed small consolation. They also pressured the government to use American air bases in Britain as a diplomatic weapon to force the United States to agree to a joint policy for hydrogen weapons. Attlee's Labor government, they insisted, had successfully kept the spirit of the Quebec Agreement alive by obtaining assurances from Truman that the United States would seek Britain's consent before using atomic weapons against a third party. The culmination of a very bad few weeks for the Prime Minister came on April 13. Under questioning, Churchill confessed that present Anglo-American relations regarding the civil use of atomic energy covered only information exchanges in a limited field. There was no agreement, in addition, to
exchange information on the design or manufacture of atomic weapons.  

On May 4, 1954, the Conservative party struck back. A member of the Conservative party's right wing bluntly asked Churchill if it were true that the Attlee government had—as asserted in the just published book, The Vandenberg Papers—given up in the Modus Vivendi of 1948 the British right of veto over American use of atomic weapons in exchange for American financial aid. To Attlee's outrage, Churchill's reply amounted to a smile of satisfaction. When the question was repeated on May 18 in words charging a "surrender" and "sell-out" of Britain's right of veto, Attlee could no longer keep silent. He insisted there had been no surrender, no sell-out, but as with the Labor attack on Churchill, the damage was already done.  

Although Churchill spent a good deal of time and effort defending the United States in the Parliamentary debates of March, April, and May 1954, he himself had grave concerns about the impact of the hydrogen bomb on the continued security of the British Isles. Acquisition of hydrogen bombs in some numbers by the Soviets, he realized, would mean that the British government would have to reassess its civil defense and city defense programs. Shelters would have to be dug far deeper in the ground than originally conceived, plans would have to be created for a wider dispersal of the population, and anti-aircraft artillery and fighter squadrons would have to be strengthened to take a higher toll of an invading bomber force. The American hydrogen bomb test incident, then, presented both a headache and an opportunity. It was a headache because of the political problem it created both within Britain and between the United States and Britain.
It was an opportunity because it permitted the British government to open discussions with the Americans on the hydrogen bomb and, once again, on the question of consultation.\(^8\)

On April 12, 1954—just as the administration began contemplating intervention with air power, possibly with atomic bombs, in Vietnam on the side of the beleaguered French—Eden met with Dulles in London to discuss the feasibility of a moratorium on further hydrogen bomb experiments. He did so again on May 2. British scientists, Eden said, had determined that two well-placed observatories—one in Scandinavia and one in Switzerland (or even better, one in Europe and one in North America)—could detect explosions equivalent to 50,000 tons of TNT and pinpoint the site of such explosions. It would be a good idea, then, to interrupt the acceleration of the nuclear arms race to propose a moratorium on nuclear tests of such a magnitude. The Soviets would be put on the spot. If they accepted, the American lead in nuclear technology might well be preserved. The only drawback was that Britain too, should the government decide to develop a hydrogen bomb capability, would be disadvantaged. He hoped that under such circumstances the United States would be "as kind to the United Kingdom as possible within United States laws." If the Soviets refused, they would suffer in the eyes of world opinion.\(^9\)

Because the United States was taking such a propaganda bath in Europe over the hydrogen bomb mishap, the NSC on May 6, 1954 decided to study the moratorium proposal. In theory, it would produce good publicity for the United States and its allies. A moratorium agreement could serve to reduce tensions and preserve the American
nuclear lead. But the Soviets might sign a treaty, then secretly break the moratorium in a cunning effort to catch up with the American program. And the United States did have a significant lead. In the last six weeks of testing, it had made great strides in the development of nuclear weapons technology and could probably maintain its advantage by further research and development efforts. Another reason the administration, especially the DOD, looked doubtfully on the moratorium idea was that the United States was developing a small megaton weapon to defend against Soviet bombers. Since high priority had been given by the President to efforts to develop a defense of the continental United States against Soviet nuclear attack, the administration was reluctant to take any action to delay the test, expected sometime in 1956. By late June, it was decided that a moratorium on testing would be infeasible.10

Simultaneous with its effort to win approval of a moratorium on testing, the British government attempted to reopen the question of consultation. Because of the debate in the House of Commons and of the negative American reaction to Churchill's revelation of the terms of the Quebec Agreement, the inescapable impression left with the public was that the British right of consultation no longer existed. This perception particularly annoyed Eden, now asserting himself as Churchill declined. It was his opinion, he told Dulles at the April 1954 meetings of the North Atlantic Council, that the United States was obligated to consult the British government "prior to any decision to use atomic weapons." Now Dulles became annoyed. The British, he believed, were obviously trying to maneuver into the position of having
a veto on American use of atomic weapons. On May 6 (at the same
meeting at which the decision had been made to study the idea of a
moratorium on testing) he told the NSC that Eden was fully aware of
American policy on the subject. His, Dulles', statement to a restric-
ted group on April 23, 1954 at the NATO meeting had put all the allies
on notice regarding that policy and should, he maintained, constitute
the necessary "consultation with our allies." He had said that the
United States assumed that the Soviets would, in the event of general
war, make use of atomic weapons with maximum surprise. In response,
and since NATO relied so heavily on atomic weapons for its defense, the
United States would employ atomic weapons like conventional armaments
to repel the Soviet attack. While the administration intended to con-
sult and cooperate with the allies, the allies had to understand that
"under certain contingencies, time would not permit consultation with-
out itself endangering the very security we seek to protect. So far
as feasible, we must seek understanding in advance on the measures to
be taken under various circumstances. In these ways, our joint capaci-
ties will be best calculated to deter aggression against any of us and
to protect us in case it should occur."

On May 7, 1954, Dulles said publicly that there was a dis-
tinct possibility that the United States might be forced to intervene
militarily in Indochina. A French force of several thousand soldiers
had just surrendered to the North Vietnamese at Dienbienphu. It
appeared likely, in addition, that the Chinese Communists would give
jet aircraft to the North Vietnamese and swing the military balance
even more decisively against the French. Within the administration,
virtually all of Eisenhower's advisors, including Dulles and Admiral Radford, believed that if the Chinese intervened in Vietnam in any major way, the United States should attack China with atomic weapons. But the President did not want to order that kind of unilateral American action without assurances of allied support. If he did order atomic strikes against the Chinese, he told the JCS, the Soviets might become involved and the United States would then have to fight the two most powerful Communist powers by itself. As it turned out, the Chinese did not intervene in Vietnam and the President never had to make a decision.  

The turmoil surrounding the situation in Vietnam, continued debate over the EDC treaty, and the question of consultation caused Churchill to ask for a conference with Eisenhower. This was arranged for May 20, 1954 but was postponed until June 25 because of a conflict with the Geneva meetings on Vietnam. With a final communique already under preparation days before the British arrived, the Americans were concerned not to commit to anything that would interfere with passage by Congress of the amendments to the McMahon Act. The British, on the other hand, wanted to investigate how much cooperation to expect once Congress approved the changes. Churchill, therefore, brought with him not only Eden but Cherwell and Sir Edwin Plowden, Chairman of the British Atomic Energy Authority. Eisenhower relied on Dulles, Strauss, and other advisors to discuss questions and technical matters related to atomic energy and nuclear weapons. In one area, however, he took a personal hand. In order to win British support for the EDC, he told Churchill that the United States would give Britain American atomic
bombs in the event of an emergency. The British, he was thinking, had more bombers than bombs. Besides, he did not want to see only American bomber crews suffering casualties. This promise to the Prime Minister could not, of course, go into the public statement of June 28. Eisenhower and Dulles made certain that the wording suggested no commitments, nothing of which Congress would be "jealous" or to which it would object. The same was true of the final communique of June 29. Aside from references to other topics discussed at the meetings, these two documents spoke only of the desire of both the British and Americans for better cooperation on atomic energy matters once Congress made a decision on the legislation before it.\footnote{13}

Eisenhower's willingness to let the British share the burden of atomic air attacks in the event of war did not mean he intended to consult before deciding in an emergency to use atomic weapons. But he and his advisors realized that the question of consultation—not only with the British but with all the Western European governments—had a bearing on the stability of the NATO alliance. In NSC 5422/2, a statement of policy adopted by the NSC on August 7, 1954, the administration sought to maintain a balance between consultation and freedom of action. "As a broad rule of conduct," the document read, "the U.S. should pursue its objectives in such ways and by such means, including appropriate pressures, persuasion, and compromise, as will maintain the cohesion of the alliances. The U.S. should, however, act independently of its major allies when the advantage of achieving U.S. objectives by such action clearly outweighs the danger of lasting damage to its alliances. In this connection, consideration should be given to
the likelihood that the initiation of action by the U.S. prior to allied acceptance may bring about subsequent allied support. Allied reluctance to act should not inhibit the U.S. from taking action, including the use of nuclear weapons, to prevent Communist territorial gains when such action is clearly necessary to U.S. security.\(^{14}\)

The policy adopted unofficially by the Truman administration, confirmed in the *Modus Vivendi* of 1948, maintained by American officials after American strategic bombers were introduced into Britain in summer 1948 and armed in 1951 with atomic weapons, and adhered to by President Eisenhower through the first 20 months of his administration had now become official American policy. The United States would not let allied claims to consultation on, let alone veto of, American use of nuclear weapons hinder Presidential freedom of action to respond to Soviet conventional and/or nuclear attack. The most the administration would be willing to do was discuss far in advance possible scenarios which would trigger a decision to use nuclear weapons and plans on how those weapons should be employed. Even then, the United States would make no commitment to alter its strategy. If the British and other NATO governments wanted American assistance in the defense of Western Europe, they would have to accept such assistance on American terms.

* * *

The unseemly bickering between Labor and Conservative members in the British Parliament over the consultation question, and the British government's attempt to capitalize on the controversy to put pressure on the Eisenhower administration to make concessions did not
affect the progress of the proposed amendments to the McMahon Act. Bickering between Strauss and the JCAE almost did. The dispute had its origins in Eisenhower's decision to make Strauss both Chairman of the AEC and his personal advisor on atomic energy matters. Since the dual role had given Strauss far more authority vis-a-vis the other AEC commissioners, he had progressively taken more and more of the AEC's policy-making power into his own hands. This was what the President had intended. But his actions angered Commissioner Thomas E. Murray and he and his colleagues complained that Strauss sometimes did not permit them access to information. Strauss, they charged, often made important policy decisions on his own. Because Murray and a majority of the AEC opposed Strauss and the President on a decision to open negotiations with the Mississippi Valley Generating Company to provide power in an AEC plant in Paducah, Kentucky in place of power generated by the government-controlled Tennessee Valley Authority (the so-called Dixon-Yates proposal), the dispute went beyond the confines of AEC meetings. On this particular issue, Murray made common cause with congressional Democrats opposed to the involvement of private industry in the development of nuclear power reactors. The result was further tension between Strauss and Murray and conflict between Strauss and the Democrats on the JCAE. When Strauss refused, in response to a JCAE letter of May 20, 1954, to turn over some information on AEC meetings for the past ten months so that the Joint Committee could look into AEC activities, all the members of the JCAE became upset. During hearings on the proposed changes to the McMahon Act, they pressed the Chairman of the AEC to comply. He refused once again and caused them
to insert into the legislation language requiring the AEC to keep
the JCAE "fully and currently informed with respect to all AEC activi­
ties." The Chairman of the AEC, the members of the JCAE had decided,
would not be permitted to obstruct Joint Committee wishes again.15

The administration had originally put the proposed changes
to the McMahon Act before the JCAE in two parts—international/security
issues and domestic issues. But the Dixon-Yates controversy had
stirred up Democratic opposition to the domestic changes. To improve
chances of passage, Cole and Hickenlooper consolidated the amendments
in late May 1954 into one package. This would prevent Democrats
opposed to participation by private industry in the development of
power reactors (but generally in favor of greater cooperation with
allies) and isolationist Republicans opposed to revealing American
atomic secrets (but in favor of the development by private industry
of nuclear power reactors) from attacking separately the provisions
of the amendments they did not like. The maneuver was successful.
Testimony by the AEC commissioners, Secretary of State Dulles, Assis­
tant Secretary of Defense for Research Donald A. Quarles, and Chairman
of the JCS Radford in June 1954 convinced most of the remaining
doubters among the members of the JCAE that the proposed changes were
for the good of the country and in the national interest. Dulles
summed up the key arguments. He explained that legislation to permit
greater cooperation with the allies on the utilization of atomic
weapons and on the establishment of a pool of fissionable material for
peaceful purposes was necessary to bolster Western European morale.
More importantly, it would enable NATO commanders to plan and make
preparations for defense against Soviet attack. 16

On July 13, 1954, the JCAE recommended to Congress that it pass the amendments to the McMahon Act. The end of the atomic monopoly had created a new international situation, they acknowledged, and the allies needed information on the use of atomic weapons to "dam the tide of Red military power and prevent it from engulfing free Europe." Giving this information to the allies, they were convinced, would be beneficial to United States national security. 17

The full Congress agreed. On August 30, 1954, it passed the Atomic Energy Act of 1954 and the President signed it. Under proper security safeguards, the United States could now give its allies certain formerly restricted information for training in the use of and defense against atomic weapons, and for evaluating the atomic capabilities of a potential aggressor. The act also provided for certain exchanges of non-military atomic technology, for example to assist the allies to build atomic reactors for research purposes and to generate power. Exchanges of information, however, would be neither simple nor unfettered. There would be no transmission of data pertaining to the design or manufacture of nuclear weapons. If the United States transmitted data—say, on the external characteristics of atomic weapons and their yields—the recipient government had to guarantee maintenance of mutually agreed security standards and promise not to transmit the information to third parties. If the United States transmitted a certain quantity of fissionable material for peaceful uses, the recipient government had to guarantee it would not divert that material to military purposes. The procedure for concluding agreements with foreign
governments was also drawn out and involved. First, the administration and the recipient government had to negotiate an Agreement for Cooperation. The AEC had then to approve that agreement, including the detailed terms and the various guarantees discussed above. Next, the President was required to approve execution of the agreement and make a written determination that performance would promote the defense and security of the United States. Finally, the administration had to submit the proposed agreement to the JCAE for a period of 30 days while Congress was in session. Only at the end of the 30 days would the bilateral Agreement for Cooperation have the force of law—but it would be an Executive Agreement, not a treaty.\textsuperscript{18}

What was remarkable (or perhaps unremarkable) about the Atomic Energy Act of 1954 was how precisely it fulfilled the desires of the Eisenhower administration. American policy-makers had wanted participation by private enterprise in the development of nuclear power and had secured that objective despite the opposition of congressional Democrats and Strauss's unwillingness to provide the JCAE with all the information about AEC activities it demanded. They had wanted measured cooperation with the allies on the use of and defense against atomic weapons and won this battle rather handily. The international reaction to the March 1954 hydrogen bomb test accident and British attempts to capitalize on the incident had caused ripples of concern among the administration and Congress but had not halted the steady progress of the amending legislation.

In light of the new American strategy to employ large numbers of atomic weapons in any future war with the Soviets in Europe, the case
in favor of the proposed changes had far outweighed the possible loss of security. The members of the JCAE and Congress had not even said no to exchanges of information applicable to the construction of power reactors—an area where the British appeared to be in competition with the United States. But they had retained their power of oversight and had no intention of letting the administration engage in an orgy of uncontrolled cooperation. Information exchanges would be regulated and limited and the Joint Committee kept "fully and currently" informed by the AEC of atomic energy matters and decisions. This provision for strict accountability of the AEC to the JCAE would have a significant impact when Strauss and the commissioners made a final determination on whether exchanging information on the external characteristics and yield of atomic weapons would reveal actual atomic weapons data.


1New York Times, January 18, 1954, p. 6; FRUS, 1952-54, 2:1324-1331. Secretary of State Dulles, in fact, was publicly pushing "massive retaliation" by nuclear means to deter the Soviets and gave a speech on the subject before the Council of Foreign Relations on January 12, 1954.


3Ibid., Strauss, Men and Decisions, p. 373.


6526 H.C. DEB. 5, pp. 36-60, 191, 963-964; New York Times, April 5, 1954, p. 10; April 6, 1954, p. 12; April 7, 1954, p. 3;
April 9, 1954, p. 4.

7 527 H.C. DEB. 5, pp. 200, 1890-1892.

8 530 H.C. DEB. 5, pp. 34-36.


13 530 H.C. DEB. 5, pp. 34-36; Dulles, Telephone Call to Hagerty, June 22, 1954; Eisenhower, Telephone Call to Dulles, June 28, 1954, Telephone Conversations of Dulles, Reel 8, pp. 941, 936; State Department, Bulletin 31:49; Ambrose, Eisenhower, pp. 207-208.


XVI. STRIVING TO ACHIEVE A MINOR VICTORY

"It (the Anglo-American Agreement for Cooperation of June 15, 1955) is of vital importance to the maintenance of our common freedom."

— Dwight D. Eisenhower, June 20, 1955

Having convinced the full Congress to grant limited authority to improve atomic cooperation with the allies, the administration now had the task of negotiating and concluding a bilateral agreement with the British, then submitting it to the members of the JCAE for their inspection. Therein lay the crux of a difficult problem. If American policy-makers interpreted the terms of the 1954 Atomic Energy Act too liberally, they might agree to a broad exchange of information only to have an aroused Joint Committee block the arrangement. If, on the other hand, they interpreted the terms too rigidly, they might please the JCAE but completely alienate the British. The result would be no agreement at all and frustration of administration plans to tighten Anglo-American atomic ties for the defense of Western Europe. Skillful diplomacy was needed, then, and fortunately, American policy-makers had time to prepare their approach. Because the new act stipulated that an Agreement for Cooperation with a foreign government had to be submitted to the JCAE for 30 days while Congress was in session, there was no reason to rush into talks.
The 1954 mid-term elections were coming up and the new Congress would not convene until January 1955.

In the meantime, the administration took care of other business relating to atomic matters. The British and Canadians were consulted in September 1954 on a proposed procedure for setting up an International Atomic Energy Agency to administer the pool of fissionable material the United States was contributing for peaceful purposes. It was ultimately decided that the initial American share of the pool would be 100 kilograms to fuel experimental atomic reactors. The U.N. General Assembly approved the American proposal in December. On the disarmament question, the administration bogged down in a dispute between the State and Defense Departments. While the State Department believed it worthwhile to pursue talks with the Soviets, the DOD warned that any negotiations would weaken the resolve of the allies to back basic American objectives—including a formal decision by NATO to adopt the early and extensive use of atomic weapons to defend Western Europe. The President did not resolve this question until he agreed in July 1955 to a Big Four (the United States, Soviet Union, Britain, and France) summit in Geneva. With respect to atomic energy, the administration did open early negotiations with one country for an agreement for cooperation. Since the Belgians were still a major supplier of uranium to the United States and since numerous promises had been made over the years to assist Belgian development of atomic energy at the appropriate time, first priority was assigned to negotiating an agreement to give the Belgian government technical aid in the construction of a power reactor in Belgium. Discussions were begun
Before the end of the year.¹

On September 3, 1954—three days before the AEC broke ground on the first American commercial nuclear plant at Shippenport, Pennsylvania—Strauss wrote Eisenhower a memorandum asking the President's authorization to continue cooperation with the British and Canadians. Current agreements included one providing exchanges of technical information and joint raw materials control under the *Modus Vivendi*, a January 17, 1952 agreement to give the Canadians information and technology on uranium refining processes, the June 26, 1952 agreement for cooperation with the British on atomic intelligence, and a joint Canadian-American program approved July 13, 1953 by Eisenhower for the development of reactor fuel elements. Because these arrangements were classified under the 1954 act as "agreements," the President had merely to give his approval to permit them to continue.²

Anglo-American talks to discuss a new agreement on atomic energy did not take place until mid-October 1954 with the arrival in Washington of Plowden and Cockcroft. Along with Makins, they met with members of the AEC and DOD for preliminary talks on possible further collaboration on the industrial and military uses of atomic energy. They were quickly given to understand that the terms of the 1954 Atomic Energy Act did not permit the administration to exchange the kind of information the British atomic energy program badly needed. This great disappointment caused Churchill and his Cabinet to reassess British atomic energy policy. A stark danger existed, they concluded, that Britain—its stockpile of atomic weapons so tiny—would be locked into a position of permanent inferiority by an international movement to
place a moratorium on, or ban outright, nuclear testing and nuclear weapons production. British public opinion, they realized, strongly approved the moratorium idea. They could no longer wait, therefore, for a breakthrough in Anglo-American atomic relations but had to make an immediate decision to accelerate the British program.³

Accordingly, they took a number of actions late in 1954 to create a British stockpile of nuclear weapons of the most modern design. First, they allocated substantially more money for a stepped-up testing program in Australia to develop bombs of greater yield and less weapons weight. Only three atomic tests had so far been conducted and by 1956, the government hoped to be in position to conduct several more. Next, they authorized construction of six additional reactors to expand production of military plutonium and highly enriched uranium. When British scientists knew more about designing and building weapons, the fissionable material would already be on hand to build them. So would the necessary manufacturing facilities. In a few years, the government hoped to turn out "tens of weapons each year."⁴

Most importantly, Churchill and his Cabinet made the decision to initiate research and development of the hydrogen bomb. It had become clear in the postwar world that in order to have political influence and be taken seriously by the superpowers, Britain too had to have the same nuclear capabilities as the United States and Soviet Union. Since it was foreseen that there might be problems with conducting thermonuclear testing at the Australian test site, separate facilities would be built on Christmas Island in the Pacific. Finally, the British government would officially adopt nuclear deterrence as the
basis of its national defense policy. Once British V-bombers began to come off assembly lines in sufficient quantities and a larger stockpile of atomic bombs was achieved, Britain would have its deterrent force. 5

Justifications for developing the hydrogen bomb were very similar, if not the same as, earlier justifications for building the atomic bomb. Manufacture of the hydrogen bomb, it was thought, would permit Britain to establish a "sufficient degree of equality in the postwar alliance" to persuade the Americans to agree to a full exchange of atomic information. A British hydrogen bomb, moreover, would be the lever whereby British leaders could influence American nuclear and foreign policy. Or, if the two governments disagreed, it would give the British Prime Minister the political strength to maintain British policy in the face of American pressure. Finally, acquisition of hydrogen bombs would give Britain some measure of independence in deterring a Soviet attack. This, it was felt, would be extremely important when the continental United States became vulnerable to Soviet nuclear attack. Once American leaders realized the territory and population centers of the United States itself were at risk, they might not be willing to go to war on behalf of Western Europe. 6

Although most British officials did believe a hydrogen bomb capability would persuade the Americans to exchange weapons information and take greater account of British opinions, they thought it highly unlikely that the Americans would back away from their commitment to NATO and Western European security. American actions quickly demonstrated the British were correct. On December 4, 1954, Dulles
convinced the NATO Council of Ministers to adopt a declaratory policy of being prepared to use nuclear weapons to defeat any Soviet conventional (and of course nuclear) attack on Western Europe. In fact, the United States was moving rapidly to improve American military readiness to do just that by drawing up plans to deploy additional atomic weapons to overseas bases. The President also ordered the State Department to insure the cooperation of foreign governments and directed the AEC to facilitate dispersal of atomic, and hydrogen, weapons within the continental United States. The Soviets, it was believed, would have the capability in five years to "strike a crippling blow at the United States." But if expansion of the American nuclear arsenal combined with dispersal continued apace, the United States would still be able to retaliate with at least equal force. Subsequently, 36% of American hydrogen bombs and 42% of the atomic bombs were sent overseas.\(^7\)

Relying on massive retaliation to deter the Soviets might cause political problems within NATO, however, because of allied fears of nuclear war and its consequences for Western Europe. This was recognized by the NSC Planning Board in a mid-December 1954 draft statement of policy intended when finally approved to supercede NSC 162/2. But despite possible strains with the allies, the planners concluded that the United States had no other viable option but to continue to rely heavily on nuclear weapons to deter Soviet aggression. It must also retain the option of use of those weapons, even in the case of local aggression. Many people in Britain were not enthusiastic about the new NATO policy. Statements by Field Marshal Montgomery and General Alfred M. Gruenther, Supreme NATO Commander, that atomic
weapons would definitely be used if war broke out provoked more questions in the House of Commons about arrangements between Churchill and Eisenhower for consultation. Labor party leaders wanted to know whether the United States had a unilateral right to use atomic weapons without talking to the British government and whether control of atomic weapons, in light of the recent NATO decision, had actually been transferred from political to military authority. Not in good health and unwilling to engage in another debate like the one in the spring, Churchill avoided a meaningful response. He left members of Parliament with severe doubts about the extent of American willingness to give the proper weight to informed British opinion on use of nuclear weapons in a crisis.  

At the beginning of 1955, the American strategic advantage over the Soviets reached its highest point prior to the age of intercontinental ballistic missiles. The American nuclear stockpile and operational nuclear weapons dwarfed the Soviet, American superiority in long and medium-range bombers was well established, and, with the French prepared to accept German rearmament and membership in NATO, the North Atlantic Treaty Organization looked stronger than ever. At home, too, the United States government was secure. Despite Democratic gains in the 1954 mid-term elections, Eisenhower's popularity was very high. Part of this was no doubt due to the fact that the administration had scored notable foreign policy triumphs, but the more telling factor was the balanced budget and growing economy. Eisenhower had restrained defense and other spending as he had promised.
The New Look defense policy and basic national security policy as detailed in NSC 162/2 concerned, however, the JCS. They wrote on December 17, 1954 that the administration was emphasizing too much a "preponderant commitment to a policy of reaction." It was imperative, they thought, "that our basic security policy, when revised, reflect throughout the greater urgency of the situation, define concretely the conditions which it is the aim of our security policy to create, and direct formulation of courses of action designed to achieve the basic objective." What they wanted specifically was for the United States, during the period in which it retained overwhelming nuclear superiority, to try and overthrow Communist domination of mainland China and Eastern Europe. To achieve these goals, the United States would have to build up its conventional forces—as it was doing with its strategic forces—and put maximum pressure on the Soviets.

The timing of the JCS memorandum was no accident. Since September 3, 1954 when the Chinese Communists had shelled Quemoy and Matsu, two offshore islands controlled by the Chinese Nationalists, the administration had been very concerned about possible aggression by the mainlanders against Formosa (Taiwan). Then in November, a Chinese Communist announcement that they had given long prison terms to several American fliers captured during the Korean War sharpened the crisis atmosphere. As in May and June 1954 during the scare over possible Chinese intervention in Vietnam, all of the President's key advisors favored American action, some even atomic bomb attacks against mainland China. The President did not accept this advice. Instead,
he watched alarmed as tensions between the two Chinas grew. Finally, in late January 1955 when it appeared the Chinese Communists might be contemplating an attack on Formosa, he secured a congressional resolution (the Formosa Doctrine) granting him authority in advance to engage in war at his own time and choosing if the Chinese Communists attacked Formosa.

If the United States had to fight the Chinese, Eisenhower realized, he would need the cooperation of the allies. He, therefore, sent Dulles to London in mid-February 1955 to lobby for British support for the defense of Formosa. At the same time an invitation was issued to Sir William Penney, the British scientist: most responsible for the British development of the atomic bomb, to come to Washington for talks. The invitation seemed all the more timely after the British government announced on February 17, 1955 its decision to build hydrogen bombs. Arriving in March, Penney carried on extensive discussions with Americans over a two week period. Afterwards, he left behind in Washington a permanent British scientific mission to act as a liaison agency for possible exchanges and discussions of atomic weapons developments.10

Meanwhile on March 10, 1955, Dulles argued before the NSC that the United States, contrary to the advice the British had given him in London, should use atomic weapons if the Chinese Communists attempted to capture Quemoy and Matsu. He then persuaded a reluctant Eisenhower to sanction his March 15 public statement that the United States had to be prepared to use tactical atomic weapons in the event of war in the Formosa Straits. To Anthony Eden, Prime Minister after
Churchill's retirement on April 5, 1955, the announced American intention to use atomic weapons unilaterally was a very serious matter. He had always insisted that Britain had the right to be consulted before American resort to nuclear weapons. Such a decision might trigger a Communist counter atomic attack against the British Isles. Although the Chinese did not have a nuclear capability, the Soviets did. And even if the Soviets chose not to go to the aid of their Chinese allies, the Chinese themselves would probably react to American atomic strikes by overrunning British-controlled Hong Kong. At the very least, then, Eden wanted the British point of view on the use of nuclear weapons represented in American decision making.

Against this tense international backdrop, AEC Chairman Strauss and Assistant Secretary of Defense for Research and Development Donald A. Quarles went to London on April 19 to visit British atomic energy installations and meet with Eden. The topic of conversation was cooperation, but Eden could well have been thinking that a full exchange of atomic information would be to no avail if the United States went to war with China. Fortunately, the Formosa crisis eased with an offer by Chinese Premier Chou En-Lai to negotiate. The question of consultation would not now become a factor affecting Anglo-American negotiations for a new atomic energy agreement.11

What did become an issue was DOD plans to incorporate in a new agreement a provision to exchange with the British American nuclear submarine propulsion information. On April 19, 1955, the day Strauss and Quarles flew to London, the JCAE sent a letter to the AEC requesting information about proposed exchanges with the British and other
nations of restricted data pertaining to military type reactors. Although the committee members were willing to sanction some cooperation of the development of civil reactors—an essential provision of the President's Atoms for Peace plan—they wanted the American technological lead in the military reactor area preserved. They were very proud that the Nautilus, the world's first nuclear submarine, was ready to be handed over to the United States Navy for sea trials on April 22, 1955. In reply to the JCAE’s letter, Strauss wrote on May 16 that it was the opinion of the AEC's General Counsel that the 1954 Atomic Energy Act did not permit exchanges of restricted data on submarine, aircraft, and/or military package power reactors.  

The JCAE still did not relax. The members had learned of two AEC-DOD communications regarding proposed categories of information to be included in a possible agreement for cooperation with the British and Canadians and wanted copies of those communications and the AEC's General Counsel's opinion. Knowing full well that the AEC-DOD communications contained information on DOD wishes to exchange with the British information on nuclear submarine propulsion, Strauss did not want to jeopardize Anglo-American negotiations by letting the JCAE know what was afoot. On June 9, 1955, therefore, he claimed executive privilege for the AEC-DOD communications. He did wave that privilege for the document containing the opinion of the AEC's General Counsel.

Fearful that the DOD proposal to exchange nuclear submarine propulsion information—actually already negotiated with the British and Canadians—would blow up in their faces and cause the JCAE to reject the entire agreement for cooperation, Strauss lobbied feverishly
within the administration to get the proposal dropped. He was essentially successful. Although an exchange of nuclear package power plant information was provided for in a separate agreement for cooperation with the Canadians, the exchange of nuclear submarine propulsion information was excised from the Anglo-American Agreement for Cooperation concluded on June 15, 1955 in Washington. The Anglo-American agreement did, however, provide—on paper—for a degree of cooperation not achieved since the Second World War. There were two parts. The British and Americans would exchange information on the civil uses of atomic energy and on the military uses. The civil agreement contained a very important restriction. It stated that the signatories were prohibited from exchanging data of military significance, or data "not relevant to current or planned programs." This meant that the United States would not give the British information on military power reactors (including nuclear submarine reactors) and isotope separation plants. Data on heavy water and U-235 could be transferred if exclusively for civil research purposes. All information, in addition, had to be exchanged on the basis of reciprocity. If the British had no information of equal value, the United States would be free to refuse to divulge its secrets. The military agreement was the more important of the two. It stated that since the United States and Britain were participating in "international arrangements for their mutual defense and security and making substantial and material contribution thereto," they would make atomic information available to each other so as to facilitate the development of defense plans, assist in the training of personnel in the employment of and defense against
atomic weapons, and cooperate in the evaluation of the capabilities of potential enemies (read, the Soviet Union) in the employment of atomic weapons. The signatories further agreed to maintain mutually satisfactory security standards and not to communicate exchanged atomic information to any third party. No atomic weapons or special nuclear material could be transferred.\textsuperscript{14}

Overall, the terms of the Anglo-American Agreement for Cooperation of June 15, 1955 amounted to a conservative step in the direction of greater cooperation in the field of atomic energy. This moderation was important. It convinced new JCAE Chairman Senator Clinton P. Anderson (D., New Mexico) and his colleagues that, despite their anger at Strauss's decision to withhold the two AEC-DOD communications and despite suspicions that the administration had almost made an agreement to give the British American military reactor information, they should approve the arrangement. They did so in hearings in July. But the moderation of the agreement also created problems. Although a better atmosphere between British and American officials resulted, many in Britain felt that the agreement did not go far enough. The restrictions against disclosing weapons design and manufacturing information was scored in Parliament, the \textit{London Times}, and \textit{Manchester Guardian} and the feeling was widespread that duplication of effort and waste would continue in the British and American programs. The agreement certainly would not help Britain reduce costs. There was a more fundamental obstacle to using the agreement for greater cooperation, however. The AEC and DOD still disagreed as to the extent of information exchanges possible under the agreement. Not only had Strauss and
his colleagues shot down the proposal to exchange nuclear submarine propulsion information, but they were increasingly inclined to refuse to sanction information exchanges on atomic weapons characteristics—size, weight, and yield. Transferring this information, they felt, would reveal information about the design and manufacture of American atomic weapons. If the JCAE learned of this, there would be a backlash from the members. In the end, the AEC blocked exchanges of information the British needed to design delivery systems to carry American atomic weapons. Informed British participation in defense planning, as a result, remained a problem. Despite DOD protests to the President, this state of affairs endured until early 1957. The June 15, 1955 agreement was, therefore, a very unsatisfactory (albeit temporary) conclusion to the high hopes Churchill had had for atomic cooperation with the Eisenhower administration.

The decision of Churchill and the British government in late 1954 to expand dramatically the British atomic energy program had been vindicated by the disappointing terms of the Anglo-American Agreement for Cooperation. If Britain was to build up a relatively large stockpile of bombs, it must do so on its own without significant American help. But British leaders had not abandoned the hope that patience and persistence would eventually pay off in establishment of full cooperation on atomic energy and weapons. For just this reason, they made the decision to develop the hydrogen bomb and using the same rationale settled for the minor victory provided in the June 15, 1955 agreement. Although under that agreement information exchanges—especially on the utilization of atomic weapons—turned out to be
severely circumscribed by AEC-DOD disagreement, the British came tantalizingly close to achieving a real breakthrough. The Americans very nearly agreed to transfer nuclear submarine propulsion information. Again, the JCAE was the villain. This time, however, there was a realistic hope that the administration, particularly the DOD, would rally its forces and increase efforts on behalf of cooperation. Basic American national security policy and the American-inspired strategy of early use of atomic weapons in defense of NATO were being thwarted by inability to collaborate with Britain in the atomic area. As Soviet nuclear capability grew in the next few years, therefore, the pressure to match the rhetoric of cooperation with actual cooperation would become immense.


4Simpson, Independent Nuclear State, pp. 221-222, 244-245.

5Ibid.


7Memorandum by Staff Secretary (Colonel A.J. Goodpaster) to Eisenhower, Washington, undated, Papers of Dwight D. Eisenhower, Ann Whitman File, Eisenhower Library (photocopy); Draft Statement of Policy Prepared by NSC Planning Board (NSC 5440), Washington,
Although the President had ordered dispersal of atomic weapons to operational bases in the United States, there was still the problem of the AEC certifying that the DOD was technically capable of handling so many more weapons. But with the decision by NATO to base its defense on the use of atomic weapons, the transfer of custody was only a matter of time.


Ibid.


XVII. CONCLUSION

From the end of the Second World War to the June 15, 1955 Agreement for Cooperation, Anglo-American atomic relations were not good. Compared to the level of cooperation that existed in other areas of the bilateral relationship, they were poor. But that is not to say that American policy in this area failed. On the contrary, it was extremely successful in fulfilling American goals.

In the period from August 1945 to August 1949, the United States government—the Truman administration and Congress—set forth and attempted to secure a number of objectives. Chief among these was preservation of the American atomic monopoly to enable the United States to build up a sizeable stockpile of atomic weapons. In order to accomplish that objective, the administration and JCAE emphasized maximum security for American atomic secrets and acquisition of free world raw materials critical for the construction of atomic weapons. Another objective was to free the President from all encumbrance on the use of atomic weapons to respond to Soviet aggression. Although it was not thought that in the immediate postwar period the President would have to resort to atomic weapons, the international situation might require it once the Soviets tested an atomic bomb. When the Soviets did, freedom of action on the use of atomic weapons would be vital to American security.

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In light of the above objectives, American policy toward Britain was quite logical. The Congress passed, and the administration approved, the McMahon Act of 1946 placing severe restrictions on cooperation with foreign governments in the development of atomic energy. This was the best way, they believed, to insure maximum security for American atomic secrets. Although in 1946 both the Soviets and British possessed the theoretical knowledge to build an atomic bomb, it would be many years, Americans hoped, before the Soviets detonated a bomb. And even when they did, they would have to spend large sums of money, accumulate large amounts of raw materials, and construct an extensive atomic energy infrastructure to build up a stockpile of atomic weapons to rival the American. So long as the administration took no action which might assist Soviet development, therefore, the United States could look forward to holding a decisive strategic advantage over the Soviets for years to come. That advantage would pay huge political and economic dividends in the chaotic postwar world and might help win a war should the Soviets and Americans get into a fight. Neither the administration nor Congress was willing to jeopardize American atomic superiority by giving away American atomic secrets to what was considered a leaky British ship of state. Nor would they countenance continuation of the wartime British right of veto over American use of the atomic bomb. That right was a dead letter even before the Modus Vivendi of January 7, 1948 officially terminated it. Only joint control of raw materials remained an active and important area of Anglo-American cooperation and only because it coincided with the American objective of building up as rapidly as
possible the American atomic arsenal and gaining an unassailable lead over the Soviets.

Shortly before the Soviets detonated an atomic bomb in August 1949, a shift in American objectives, and therefore policy, occurred. Although maximum security and American freedom of action on the use of the atomic bomb retained vital significance, American officials began to consider seriously whether cooperation with the British might accelerate the growth of their joint atomic strength vis-a-vis the Soviets and preserve for a longer time the strategic advantage. A problem here was that the Fuchs case of early 1950 highlighted the negative aspects of cooperation—the possibility of catastrophic loss of security due to leaks through the British program to the Soviets—and so the door of opportunity blown open by the sudden blast of a Soviet atomic bomb snapped shut again. The possibility of cooperation disappeared for another three years.

What finally forced the door open again was the Eisenhower administration's New Look defense policy and emphasis on nuclear weapons to deter Soviet aggression and defend Western Europe. In order to implement that strategy, the United States needed to secure the cooperation not only of Britain but other NATO countries as well. Unfortunately, the new objective of atomic cooperation clashed with the old objectives—maintaining the highest possible level of security for American atomic secrets and preserving American freedom of action on the use of nuclear weapons. Because members of the JCAE continued to cling to the maximum security axiom and believed, in addition, that the British wanted to appropriate American atomic secrets to gain a
competitive advantage in the industrial and commercial field, they quarreled with administration (especially DOD) plans to press for greater collaboration on the military uses of atomic energy. Because the United States government continued to insist that the President retain freedom of action on the use of nuclear weapons to deal with possible Soviet aggression, the administration clashed with the British. In the latter battle, the United States would never yield. In the former, the JCAE would do so only grudgingly. At the time of the June 15, 1955 agreement, however, the JCAE still had sufficient influence to prevent significant Anglo-American atomic cooperation. Once the growth of Soviet nuclear power and Soviet development of the intercontinental ballistic missile took place, the objective of cooperating with the allies in the atomic sphere would outweigh maximum security considerations.

In sum, the formulation of American atomic policy toward the British had more to do with the struggle for a strategic advantage over the Soviets and restrictions imposed on administration actions by the JCAE than by British development of atomic energy. But the British might have been able to exert influence on American policy had they demonstrated to the United States government that they could contribute to the fulfillment of American atomic goals.

The major factor inhibiting British ability to reason along these lines was the notion, firmly entrenched in most British minds, that Britain was still a Great Power. Even though in the immediate postwar years British finances were exhausted, British military power depleted, and British political influence diminished, British leaders
continued to think of their nation as one of the world's "Big Three."
And even though Britain had neither the technical knowledge, scientific
and technical personnel, and financial resources to come close to
matching the size of the American atomic energy program, British
leaders believed they should be taken into an equal and full partner­
ship with the United States in the atomic sphere. They believed the
Americans owed them this because of their immense contributions to the
defeat of the dictators in World War Two. The Americans believed,
however, that the British were asking for American atomic secrets while
offering precious little in return. Not only would the United States,
because of Marshall Plan aid, be subsidizing the British program, but
the British would be unable to use all the information given them.
Instead, the British atomic energy program would be a conduit for the
transfer of American atomic secrets to the Soviets.¹

Another reason cooperation with the British looked so
unattractive to many American officials before August 1949 was that
the British simply did not appear to be trying to make cooperation
attractive. The British atomic energy program moved so slowly it took
seven years just to produce an atomic bomb for testing. The British
had no stockpile to speak of until 1954. Worst of all, they refused
to see how important security considerations loomed in American calcu­
lations. Their failure to make improvements suggested they wanted
American officials to trust them blithely with the most critical of all
American secrets—and this in the face of numerous proven leaks of
major proportions to the Soviet Union.
British inability to take due consideration of the inequality of the American and British positions carried over to revival of the question of consultation, raised anew in the 1950's. Although British leaders could make an arguable case for consideration of their views with respect to use of American bombers armed with atomic weapons and flying from British bases, broader assertions that Britain had a right of consultation on any American use of nuclear weapons—particularly in an emergency—served only to irritate American officials and complicate the overall atomic relationship. While British concern that American use of nuclear weapons might precipitate an all-out Soviet-American exchange and result in the destruction of Western Europe was understandable and legitimate, it was all too often played out in public for domestic political advantage. Insistence on the broader right of consultation, moreover, was evidence that the British had not yet shaken free of the fiction of Great Power status.

By the mid-1950's, reality began to set in. British officials made a greater, more sagacious attempt to increase the attractiveness of their cooperation to the Americans. Slowly but steadily, they took steps to improve British security. Though much still needed to be done in the 1956 to 1958 period, they at least recognized the importance of this factor in American, especially congressional, deliberations. In late 1954, they also set in motion an accelerated program to build atomic weapons and develop the hydrogen bomb. The importance of this development was that it gave them much more information of value to exchange. Lastly, they did in 1955 what they might have done in 1949—accept a slice of cooperation, rather than demand
an entire loaf, in expectation of receiving further slices later. Even after JCAE opposition excised from the June 15, 1955 Agreement for Cooperation the arrangement to transfer nuclear submarine propulsion information, and even after AEC-DOD disagreement cheated them of early information exchanges on characteristics of American atomic weapons, they took what the Americans gave. Later in 1957 and 1958, when the growth of Soviet nuclear power convinced the administration it would have to overrule JCAE objections and demand greater cooperation with the NATO allies, the British found themselves well positioned to demonstrate that their cooperation would be especially critical for the accomplishment of American goals. The steps taken in 1954 and 1955, then, helped facilitate congressional approval of the Atomic Energy Act of 1958 and the Anglo-American Agreement for Cooperation of July 3, 1958. Thereafter, Anglo-American nuclear relations amounted to a strong partnership in which the United States was clearly dominant, but to which Britain—so long as the British government maintained a sufficient effort—could make a very valuable contribution.

1Oliver S. Franks, Britain and the Tide of World Affairs (London: Oxford University Press, 1955), pp. 7-12, 25, 27-28. Although in this work former British Ambassador to the United States Franks recognized the difficulty for Britons, especially those born near the turn of the century and witnesses to Britain's past power, to adjust to the new postwar realities, he himself still clung to the idea that Britain was a Great Power. In his mind, dependence on the United States, or "interdependence" as he preferred to refer to it, did not mean that Britain was no longer a Great Power.

2Ibid., pp. 34-35. Franks remarked that one reason for Anglo-American misunderstandings was the failure of both sides to communicate the assumptions of a proposal. He also gave his opinion that American officials' estimation of the British went up when they
Although the JCAE Subcommittee on Agreements for Cooperation had specifically excluded from the June 15, 1955 agreement a provision allowing discussion of nuclear submarine propulsion data, the DOD was determined to gain somehow the authority to do so. Six days before the British and Americans concluded the agreement, therefore, Secretary of Defense Wilson wrote the Attorney General, Herbert Brownell Jr., requesting a legal opinion whether the Atomic Energy Act of 1954 permitted exchanges of restricted data concerning nuclear submarine and military power reactors. Brownell replied on June 13. The act did permit exchange of data on military nuclear reactors, he said, but he reserved judgment on the specific case of nuclear submarine reactors until further study had been made. Denied already a look at the two AEC-DOD communications regarding proposed areas of cooperation with the British, the JCAE was also kept ignorant of the Attorney General's opinion. The members only found out the Attorney General had been consulted on July 6, 1955 in Executive Session when the AEC commissioners, defending the June 15 agreement, mentioned his opinion that military power reactors could be exchanged.¹

During that hearing, Strauss and his colleagues testified that it was the AEC's opinion that nuclear submarine propulsion information could not be legally transferred to the British. Indeed, even
though the AEC was defending the June 15, 1955 Agreement for Cooperation, the commissioners still harbored severe reservations about fulfillment of the military part of the agreement. Data on the utilization of atomic weapons, they were more and more certain, would reveal design and manufacturing secrets. Since they were obliged under the 1954 act to inform the JCAE fully and currently as to information exchanges with the British and the implications of those exchanges, they were inclined to adopt a very cautious line. The moment of decision came in December. When the DOD proposed transfer of details on the size, weights, and attachments systems of American atomic weapons to the British Atomic Energy Authority so the information could be used to adapt British V-bombers to American weapons, Strauss and the commissioners objected. Because revealing that information would necessarily reveal design and manufacturing information, they asserted, the United States could not fulfill the terms of the Agreement for Cooperation. The result was continuing controversy between the AEC and DOD on whether the AEC could overrule DOD judgment in favor of an exchange and whether the 1954 act should be interpreted so restrictively. The basic AEC position was that only those atomic weapons essentially similar to British weapons could be discussed and even then not when the discussion involved possible revelation of design information.\(^2\)

To the great frustration of DOD officials, the June 15, 1955 agreement had turned out to be ineffective as a vehicle for the transfer of atomic information. They now could not fully implement coordination of NATO war planning and strategy with American atomic forces. And so long as the AEC insisted on interpreting the law so
strictly, cooperation with the allies would be inhibited. They had to redouble their efforts to find a way around the legal restrictions.

In November 1955, Admiral Lord Louis Mountbatten, First Sea Lord of the Royal Navy, arrived in the United States for discussions with Chief of Naval Operations Arleigh C. Burke. The Royal Navy, he revealed, intended to construct nuclear submarines as soon as enriched uranium from the Capenhurst plant became available in 1957. But it would be very helpful (perhaps essential) if the United States Navy would agree to render technical assistance. Although the British had absolutely no nuclear submarine propulsion information of any kind to exchange, Burke, the Navy, and the DOD favored the exchange. Nuclear-powered ships would enhance the Royal Navy's ability to fulfill its obligations in the North Atlantic and North Sea and thereby strengthen NATO's ability in the event of war to keep open the sea lines of communication between North America and Western Europe. Accordingly, they again petitioned the Attorney General and succeeded on January 26, 1956 in securing his approval for a transfer of nuclear submarine propulsion data. The Attorney General warned, however, that "in view of the sensitive subject matter here involved and its apparent importance, I believe that, in this instance, the matter should be discussed with the Joint Committee before the agreements are entered into. This, presumably, would be undertaken on in informal basis in the interests of ascertaining preliminarily the views of the committee and, at the same time, permitting the committee to become aware of proposed developments in the field of international cooperation which might have significant effects upon the atomic energy program."
The views of the members of the JCAE, of course, were already well known to DOD officials and they had no intention of informing committee members of the Attorney General's opinion until they were better prepared for a showdown. Acting on the basis of the Attorney General's opinion, they permitted a British naval liaison officer to join the Polaris submarine project team as an observer. They then won over the AEC to secret negotiations with the British for an exchange of nuclear submarine propulsion data. For months, the members of the JCAE were kept in the dark. They were only informed on May 21, 1956 in an Executive Hearing of the full JCAE that the AEC was drafting an amendment to the civil part of the Agreement for Cooperation in order to improve exchanges between the British and American civilian reactor programs. But they were not told that an amendment had already been drafted on April 18 to permit exchanges of nuclear submarine reactor information.4

The JCAE first learned what the DOD and AEC were up to the day after Strauss took the proposed amendment to the President and received his tentative approval. On June 8, 1956, Strauss met with the JCAE Subcommittee on Agreements for Cooperation and informed them of the administration's intention. He would give the JCAE the actual document, he assured, as soon as the President affixed his signature. Because Eisenhower was subsequently hospitalized for an operation for ileitis, he did not sign until June 13, but the JCAE did receive the appropriate documentation on June 15. The members were furious. Cole said bluntly that he did not believe the 1954 act permitted such an exchange. Others complained that because Strauss wore two hats
Chairman of the AEC and personal atomic energy advisor to the President—and because Rear Admiral Hyman G. Rickover was manager of both the Navy's submarine reactor development branch and the AEC's Shippingport civil power reactor project, the transfer of submarine reactor information would probably mean a transfer of civil power reactor information as well. The British would get submarine propulsion and nuclear power generating information without reciprocating. Especially galling for the JCAE was the fact that the British refused to divulge information about their Calder Hall gas-cooled, graphite-moderated nuclear power plant scheduled to generate electricity in August 1956. This plant, the British claimed, was a military not civil production facility. Republicans on the committee believed, however, that Calder Hall amounted to unfair competition because it was subsidized by the British government.\(^5\)

On June 25, 1956, the JCAE gained an ally in its fight to frustrate the administration's plans. Commissioner Thomas E. Murray wrote a letter to JCAE Chairman Anderson declaring that he was withdrawing his approval of the exchange because of new information detailing inadequacies in British security procedures. For once, however, the administration decided to stand up to the Joint Committee. On June 29, Strauss informed the JCAE of the Attorney General's legal opinion of January 26, 1956 authorizing the exchange. He then went before the JCAE Subcommittee on July 9 to defend the plan. The JCAE counterattacked strongly. Cole introduced a bill into the House of Representatives to block exchanges of information on nuclear submarine propulsion and Anderson raised the entire matter on the floor of the
Senate on July 17. Although this latter action took place a day after the 30 day waiting period had expired, the administration flinched. The JCAE appeared ready to force a confrontation between the Executive branch and Congress.6

On July 23, 1956, the full JCAE met to hear testimony from Strauss and others on an FBI report citing problems with British security. The members were able to force into the open a dispute within the AEC and administration over the importance of this report. Now frantic to prevent the proposed exchange, the members unanimously agreed to send the President a letter demanding a suspension of the agreement to exchange nuclear submarine propulsion information until they could study the problem further. Since Congress was adjourning on July 27, 1956 for the fall elections, they wanted the administration to wait until 1957. The President reluctantly agreed. On August 3, he sent Anderson a letter assuring that the administration would take no further action until the 85th Congress convened on January 3, 1957.7

Although they had prevented at the last moment the exchange of nuclear submarine propulsion information with the British, the JCAE was nevertheless stung by the administration's surreptitious maneuverings to (as they saw it) avoid the restrictions of the 1954 Atomic Energy Act. They were determined, therefore, to reassert their presumably dominant position when Congress reconvened in the new year. But a few days before the American elections, an international event occurred which had far-reaching consequences for Anglo-American relations and atomic relations in particular. On October 29, 1956, the Israelis invaded Egypt and moved toward the Suez Canal. The canal had
been nationalized by Egyptian President Gamal Abdel Nassar on July 26, 1956 to the great consternation of the British. Now the British, in combination with the French, used Egyptian-Israeli fighting as a pretext for an October 31 invasion and occupation of the canal zone with the additional hope of undermining the authority of Nassar's nationalistic government. The move backfired. The Soviets threatened to take action, including a direct nuclear attack on Britain, to end the Suez fighting. And because the Franco-British gamble caused a furious reaction by even moderate Arab states against United States interests in the Middle East, President Eisenhower ordered a global alert of American armed forces. He then moved swiftly to bring the strongest economic and political pressure to bear on the British and French to end their invasion of Suez. On November 6, the British and French did accept a cease-fire and agreed to evacuate their troops. Evacuation was completed by December 22. The upshot of the entire affair was that the Eden government fell and relations between the United States and Britain were very severely strained.

It was of the utmost importance for the unity and collective strength of the West, newly reelected President Eisenhower realized in the aftermath of the crisis, to take vigorous steps to repair Anglo-American relations. He decided to accomplish this objective by offering the British a wider range of cooperation on atomic matters than ever before. In December 1956, therefore, he permitted the United States Air Force to open discussions with the Royal Air Force to put intermediate range American missiles into Britain as a way of deterring Soviet attack on Britain until the British could develop their own
missiles. This proposed deployment of Thor missiles would be all the more important when the Soviets (it was predicted) began deployment of their own intermediate range missiles in 1958-59, followed by deployment of intercontinental ballistic missiles in 1960-61. With Soviet intimidation during the Suez crisis fresh in their minds, British officials soon agreed.8

The decision was formally ratified by President Eisenhower and new Prime Minister Harold Macmillan in March 1957 at their meetings in Bermuda. Final arrangements were made in February 1958. Under those arrangements, the United States agreed to supply Thor missiles free of charge while the Royal Air Force supplied infrastructure services and manned and maintained the missiles. The warheads, however, would be supplied and completely controlled by American personnel on British bases until orders came to make the missiles ready for firing. This would comply with the legal requirement of the 1954 Atomic Energy Act stipulating that American nuclear warheads always remain in American custody. In order to fire the missiles, the United States and Britain settled on a "two-key" or "double-key" arrangement. British and American officers possessed separate firing keys for each missile and both keys had to be inserted before the missile rockets would fire. But this set-up was not entirely satisfactory to British officials. They insisted that the British government have the right at some future date to mount British designed and manufactured warheads on the missiles and discontinue the need for an American-controlled firing key. The Americans concurred. After the Atomic Energy Act of 1958 was passed and gave specific authorization to the administration
to complete the arrangements, Thor missiles were deployed in Britain in 1959.9

A second action Eisenhower took to mend Anglo-American relations was to give the go-ahead on February 5, 1957 for the transfer to the Royal Navy of nuclear submarine propulsion information. Without informing the JCAE, he permitted discussions to begin with the British in mid-March to define the extent of and means for exchange of information on nuclear propulsion for military purposes. He and the administration justified this decision by arguing that although a submarine was a vessel which could be used for military purposes, it (the submarine) was not a weapon itself. Under the 1954 act, therefore, nuclear submarine propulsion could be considered non-military in nature and a proper area for information exchanges with the British. Only on May 9, 1957 was the JCAE informed and by then it was too late. From May 27 to 30, Rear Admiral Rickover and an American mission visited Britain and made the first exchange of information. Later, from June 10 through 25, two dozen leading British engineers and scientists from the British Atomic Energy Authority and Royal Navy visited AEC and Naval facilities in the United States for technical discussions about submarine reactors.10

These and later exchanges did not proceed without conflict and controversy, however. Rickover found that the task of exchanging information with British officers—permanently stationed in AEC offices and the Navy Department—distracted American personnel from their work. American officials suspected that some British representatives (especially from private British firms) were using visits to obtain
commercially valuable information from Westinghouse, the major American submarine reactor building company, for use in their own civil reactor development projects. The result was that by December 1957, relations had deteriorated to the point where British naval attaches were complaining that they were not getting the needed information. Finally, Rickover went to London (still in December) and proposed that the British deal directly with American commercial firms developing and building American submarine reactors. They should stop wasting money on their own nuclear submarine development project—a project they were badly underfunding and therefore causing to be stretched out over too many years—and buy a submarine propulsion plant directly from an American company. This solution would save the British money, keep them from interfering with Rickover and his men, and give them the capability in the shortest amount of time to build nuclear submarines and increase the West's collective naval strength. The British accepted in March 1958 and Rickover helped lobby Congress to make the necessary legislative adjustments in the 1958 Atomic Energy Act.11

A final action taken by Eisenhower in early 1957 to conciliate the British occurred at the Bermuda conference of March 1957. Despite early AEC concerns that transferring information on the utilization of atomic weapons would reveal actual atomic weapons design and manufacturing data, the President ordered an exchange of information with the British on atomic weapons dimensions and weights to permit the British to adjust their bombers to carry American weapons. He also agreed with Macmillan to expand joint intelligence activities and initiate joint military planning. Through 1957, as a result, the
United States Strategic Air Command and Royal Air Force Bomber Command expanded exchanges of information and established direct communication links. In November, the first exchange of ideas on operational planning and targeting took place.  

By concluding agreements with the British government to deploy Thor missiles in Britain, to transfer nuclear submarine propulsion information and units to the Royal Navy, and to exchange with the Royal Air Force information necessary for the utilization by British bombers of American atomic weapons, the administration risked the kind of showdown the JCAE had threatened in July 1956 when Cole and Anderson went public with their opposition to the nuclear submarine propulsion information exchange. But in the first three months of 1957 when Eisenhower made his decision for greater collaboration with the British, the JCAE were told nothing of what the administration was doing. Once the members of the committee began to find out in May and June 1957, they were unable to prevent the exchanges of information from going forward. The administration, in addition, made a much more persuasive case that greater cooperation was not only advisable but critical. The rupture in Anglo-American relations and potential weakening of NATO caused by the Suez crisis, administration officials explained to members of the JCAE, had made dramatic action to heal the rift imperative. What better way to convince the British of their importance to the United States than to collaborate with them on atomic energy matters?  

To the charge that the administration was compromising American atomic secrets, the administration also had an answer. Information
exchanges on the utilization of atomic weapons still did not include
direct atomic weapons design and manufacturing information. With
regard to nuclear submarine propulsion information, Rickover and the
AEC were transferring that data gradually and only after extra pre­
cautions were taken to see that British security standards and prac­
tices were improved to protect American secrets. The administration
could even point to a partial quid pro quo. In June 1957, another
agreement with the British was concluded to facilitate information
exchanges on power reactors. This time, the British were obliged to
exchange commercially valuable information about the Calder Hall power
plant—though not data on Calder Hall's magnox fuel cans nor data on
other reactors built by private British firms.14

Despite these explanations, the administration could not
deny to the JCAE that it contemplated even greater Anglo-American
cooperation in the future. Some within the administration still
opposed this development, however, and especially the acquisition by
Britain of a more powerful nuclear stockpile. Commissioner Murray,
for example, expressed hostility to British development of the hydrogen
bomb. He believed the British should concentrate all their efforts
on developing small yield atomic weapons for tactical use. He was
extremely upset, therefore, when the British exploded a hydrogen device
at Christmas Island in the Pacific on May 15, 1957. And the British
planned further hydrogen and atomic tests in rapid succession on May 31
and June 19 on Christmas Island and in September and October in
Australia. The reasons they were hurrying was because of persistent
international and U.N. disarmament efforts to end production by nuclear
capable nations of fissionable material for military purposes or place a moratorium on testing of nuclear devices. The state of public opinion in Britain was such, the British government believed, that should the two superpowers agree, it too would be forced by domestic political considerations to comply. Because immediately after the British hydrogen bomb test Presidential advisor on disarmament Harold E. Stassen put his own proposal for an early end to the production of fissionable material for military purposes before the U.N. Five Power Disarmament Subcommittee, some British officials suspected that Eisenhower himself wanted to prevent British accumulation of a larger stockpile. But the President privately disavowed Stassen's proposal in June and gave full support for British nuclear efforts.15

The cause of "full and effective cooperation"—the elusive goal for which the British had been striving since the end of the Second World War—needed one more stiff jolt of international reality to push it over the top. It received that jolt on October 4, 1957 when the Soviets launched the Sputnick rocket into orbit around the earth. By demonstrating the capability to construct nuclear-armed intercontinental ballistic missiles to attack targets in the continental United States, the Soviets seemed to have leaped ahead of the United States in the struggle for a decisive strategic advantage. Although the United States was right on Soviet heels in the development of ICBM's, the launching of Sputnick shocked American leaders and won for the Soviet Union a great international propaganda victory.

The importance of Sputnick was not lost on the British. Prime Minister Macmillan immediately signalled his willingness to pool
nuclear resources with the United States and received an invitation from Eisenhower to come to Washington. The invitation was accepted and the President and Prime Minister, accompanied by their key advisors, met from October 23 to 25, 1957. On October 24 at the White House, they established two committees—one to discuss collaboration on the development of weapons systems and the other to discuss full nuclear collaboration. Eisenhower also committed to seek an amendment to the 1954 Atomic Energy Act to permit full cooperation with Britain. A month later in Paris, the United States was able to persuade NATO leaders to sanction deployment of American tactical nuclear weapons into a stockpile earmarked for NATO use. The weapons would be kept in American custody in peacetime but would be transferred to Western European forces for use on their own delivery systems once an attack by the Soviets had begun. In order that the NATO countries could make their delivery systems compatible to American weapons, the United States agreed to transfer information to NATO states on the weights, dimensions, fusing systems, and attachment points of American nuclear weapons.16

With international events mandating so clearly the necessity of a high level of nuclear cooperation with the allies, Eisenhower in early 1958 asked Congress for amendments to the 1954 Atomic Energy Act to allow four types of cooperation with the allies. First, he wanted authority to give more information to all the NATO allies to deploy American nuclear weapons on their delivery systems in the event of war. Next, he wanted to transfer actual military nuclear power plants, their fuel, and certain non-warhead components of nuclear weapons systems
(for example, bomb attachment mechanisms) to the NATO allies. Third, he wanted to give to nuclear capable allies "special nuclear materials" for all types of military and non-military uses, and non-nuclear components of nuclear weapons. Lastly, he wanted to exchange with nuclear capable allies information to allow them to improve nuclear warhead design, development, and production capacity. With regard to Britain, the amendments would permit arrangements already concluded (but not implemented) by the two Anglo-American committees set up on October 24, 1957. The United States would exchange American U-235 and tritium—both cheaper to make in the United States—for British plutonium. This arrangement would enable the United States to meet its accelerated bomb production requirements, help build up the stockpile of bombs earmarked for NATO use, and supply plutonium to Western European states under the recent EURATOM agreement (a product of Eisenhower's Atoms for Peace plan of December 1953) for non-military research. The British would use the U-235 to manufacture nuclear weapons and for submarine propulsion and would use the tritium for tactical and megaton warheads. Receipt of these materials from the United States, moreover, would allow them to cut off operation of some reactors and thereby conserve raw materials. They would also conserve raw materials by promising not to develop nuclear artillery shells, nuclear warheads for "short-range artillery rockets," a certain percentage of British tactical nuclear weapon requirements, and nuclear depth charges. These armaments would all be available in the event of war out of the stockpile the United States was earmarking for NATO use. 17
Although Eisenhower wanted authority to exchange information on nuclear weapons design, the administration did not intend to tell the British everything the United States knew. The Anglo-American committees agreed only to American transfer of nuclear weapon design information and actual non-nuclear components of similar types of nuclear weapons developed independently by both sides. This meant that the British would receive information and components on those types of weapons that they themselves had under active development. They would not, under any circumstances (short of war), receive actual American nuclear warheads. The terms of the arrangements for delivery systems were far more convenient. The British and Americans would monitor each other's development of strategic delivery systems and reserve the right to purchase or license-produce complete systems or component parts. Lastly, the United States would arrange to permit British purchase of a submarine reactor—as per Rickover's suggestion of December 1957—and the British would give in exchange information on the design of their Calder Hall magnox fuel cans. The overall effect of these arrangements would be to reduce costs, increase the efficient use of resources and scientific manpower, expedite acquisition by Britain of a larger nuclear stockpile and nuclear submarines, and increase the collective Anglo-American (and NATO) strength vis-à-vis the Soviets. 18

Most members of the JCAE and Congress now understood as much as did the administration the great need for cooperation with the allies. So insistent was Eisenhower that Congress pass the required amendments to the 1954 Atomic Energy Act that even those still opposed
knew they could not prevent fulfillment of the vast majority of the changes he requested. Almost all the provisions for cooperation with Britain, for example, would pass. But in JCAE hearings lasting from late January through late May 1958 and featuring bitter complaints by Anderson and others about administration deception over the nuclear submarine propulsion information exchange issue, diehards fought determinedly to limit cooperation with other NATO allies. On one key matter they were successful. Concerned that transfer of non-nuclear components, fissionable nuclear material, and nuclear weapons design information to a foreign government would amount to giving that government a "do-it-yourself kit" to build nuclear weapons, they amended the proposed legislation to insure that the United States could only give non-nuclear components of nuclear weapons to those states having made "substantial progress" in the development of atomic weapons. "Substantial progress" meant, the members of the JCAE made certain, that a nation had to have constructed a processing plant to produce fissionable material for a number of types of bombs and have successfully tested those bombs. The effect of this restriction was to exclude France as a recipient of a "do-it-yourself kit." The JCAE also secured an added guarantee the administration would not go beyond the now ample authority it had to cooperate with the allies on nuclear matters. The committee stipulated in the proposed legislation that all future Agreements for Cooperation had to be put before the JCAE for 60 days and that a concurrent resolution of both houses of Congress could prevent implementation of any agreement.
While the JCAE debated these and other changes to the administration's proposed legislation, the Soviets surprised the West by announcing on March 31, 1958 that they were unilaterally suspending nuclear weapons testing. The suspension would be lifted after a few months unless the British and Americans agreed to similar suspensions. This action put the British in a difficult position. British public opinion favored the proposal, but the British atomic energy program had not yet conducted sufficient tests to perfect a hydrogen bomb concept, reliable and resistant to countermeasures. It was hoped that tests scheduled for September would accomplish that goal. If the United States accepted the Soviet proposal, however, the British government almost certainly would have to go along. It became all the more important, then, for the American Congress to pass the more lenient atomic energy legislation and for the Eisenhower administration to begin cooperation on a broad scale. Hoping to hurry along the process, Macmillan went to Washington June 7 to 9 to negotiate a provisional military nuclear agreement to put before Congress for the requisite 30 days (the 60 day provision would not go into force until the 86th Congress assembled in 1959) covering the arrangements worked out by the two Anglo-American committees. At those meetings, the Prime Minister and President also formalized the "two-key" procedure for control of Thor missiles once they were deployed in 1959. Substantial Anglo-American nuclear cooperation was almost a reality. 20

The JCAE had one last reservation about collaboration. The members were willing to give the administration a virtual free hand to cooperate with the British on atomic weapons but did not see the need
for giving the British a "do-it-yourself kit" for hydrogen bombs. Although they would permit the administration to exchange information on the types of hydrogen warheads the British possessed or would develop, they added a key amendment forbidding transfer of non-nuclear components of hydrogen bombs to the British. Despite lingering fears that the effect of the new legislation would be to allow the British to convert American military nuclear assistance into British commercial benefit for Britain’s state-subsidized nuclear industry, things began to move. In late June, Congress passed the Atomic Energy Act of 1958 and sent it to the President. He signed it on July 2. On July 3, 1958, the British and Americans initialled a new Anglo-American "Agreement for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes" in Washington along the lines of the arrangements detailed above. After very brief hearings, the JCAE approved the agreement and let it come into force at the end of the 30 day waiting period. The British and Americans were at last close partners in the nuclear sphere. 21

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In the inappropriately titled work, Nuclear Politics: The British Experience with an Independent Strategic Force 1939-1970, Andrew J. Pierre writes that the most important factor causing the resumption of substantial Anglo-American nuclear cooperation was the success of the British program itself. The Americans, he says, were amazed by the extent of British knowledge and expertise after the May 1957 Christmas Island detonation of a hydrogen bomb, were less concerned about leaks to the Soviets because of the extent of Soviet
nuclear progress and the fact that British security had improved, and wanted the very valuable information Britain now had to exchange. Pierre also mentions as lesser factors in the July 3, 1958 agreement the American desire to balance expanding Soviet military strength with a stable NATO deterrent composed of intermediate range missiles in Britain and tactical nuclear weapons for NATO forces, and the presence of the pro-British Eisenhower in the White House. He further describes the post-1958 Anglo-American atomic relationship as one of "interdependence." 22

Pierre is undoubtedly correct that the advances made in the British atomic energy program contributed to the American decision to agree to substantial nuclear cooperation with the British, but he is wrong that it was the major factor. The major factor was American realization that the growth of Soviet nuclear power and Soviet development of the intercontinental ballistic missile—dramatized by the Sputnick launch of October 1957—mandated greater nuclear cooperation with Britain and the NATO allies generally. 23

Although it is true that Eisenhower offered Britain greater cooperation in the atomic area as a way of repairing damage done to Anglo-American relations by the Suez crisis, he was motivated to do so largely because of his realistic assessment of the strategic balance. Nebulous Anglophilic sentiment probably played a very minor role in his thinking. Nor is Pierre's characterization of the post-1958 Anglo-American nuclear relationship as one of interdependence correct. By no stretch of the imagination, in fact, could the post-1958 nuclear relationship be termed one of interdependence. The
United States atomic energy program was massive, self-sufficient, and infinitely more varied than the British. The American nuclear deterrent dwarfed not only the British but the Soviet as well until the mid-1960's. The British atomic energy program, on the other hand, became dependent upon the United States for critical nuclear materials, especially tritium. It ultimately created deterrent forces insufficient to deter Soviet attack by themselves but valuable when linked to the much more powerful American deterrent forces. In another inappropriately titled work, *The Independent Nuclear State: The United States, Britain, and the Military Atom*, British author John Simpson admits as much. Overall British nuclear policy after 1958, he concedes, rested on British ability to "situate Britain's nuclear forces within the context of an alliance policy of maximising the 'common defense.'"\(^\text{24}\)

Without the connection to the American nuclear forces, in other words, the British nuclear forces made little sense. With the connection, they added another element of uncertainty to Soviet calculations. In 1958, Prime Minister Macmillan and other British officials might have liked to describe the new partnership as one of "interdependence," but British de-pendence would have been more accurate. British authors may believe, in addition, that they are interpreting the past history and present reality of Anglo-American nuclear relations accurately, but their exaggerated assessments of Britain's importance to the United States in the nuclear sphere amounts to startlingly foolish self-delusion.
1 Hearings Before Subcommittee, JCAE, 1958, pp. 516-519.
4 Ibid.
5 Ibid.
7 Ibid.
9 Ibid.
10 Hearings Before Subcommittee, JCAE, 1958, pp. 41, 164-166, 171, 513-514; Simpson, Independent Nuclear State, pp. 121-123.
11 Ibid.
12 Hearings Before Subcommittee, JCAE, 1958, pp. 175, 189; Simpson, Independent Nuclear State, pp. 125-126.
14 Ibid.
18 Ibid.


22. Pierre, Nuclear Politics, pp. 142-144.

23. Macmillan, Riding the Storm, p. 323. Macmillan's account of the American reaction to Sputnick leaves little doubt that the Soviet threat propelled the administration once and for all to decide upon nuclear cooperation with the British.

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