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Behind the Sheltering Bomb:
Military Indecision from Alamogordo to Korea

by

Noel Francis Parrish

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Thesis Director's signature:

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Foreword

During the five years that ended the first half of the Twentieth Century these events occurred:

The first atomic explosion.
The use of atomic bombs against Hiroshima and Nagasaki.
The end of World War II and the beginning of the Cold War.
The American decision to support Greece and Turkey against Commmonist pressures.
The Marshall Plan for the Rehabilitation of Europe.
The separation of the United States Air Force from the Army, and the establishment of a Secretary of Defense.
The Communist coup in Czechoslovakia.
The defection of Yugoslavia from Russian Communist Party control.
The British-American airlift to break the Russian blockade of West Berlin.
The revolt (peaceful) of Admirals against actions of the Secretary of Defense, known as the B-36 Controversy.
The first Russian atomic explosion, and the American decision to make hydrogen bombs.
The Communist victory over all China except Taiwan.
The beginning of the war in Korea.

Each of these events was related in some way to World War II but their total impact upon subsequent history has been greater than that of the war itself. All of the events were controversial and the controversy over the interpretation of some of them appears to be growing
rather than subsiding.

It is not the intent of this study to rewrite the history of the period from 1945 to 1950 or to add a new interpretation of the origin of the Cold War and the Balance of Terror to the many which now exist, but rather to introduce into the various debates material which has been neglected or overlooked. This material relates principally to the actions, opinions and attitudes of officials, military and civilian, who were responsible for plans and preparations in defense of the United States during this inter-war period.

In order to present a reasonably connected account, many references to published works are necessary but the emphasis is always upon events and interpretations which are generally unknown or held to be unimportant. The unpublished papers of several prominent military officers have been a leading source of information, notably:

The papers of General Carl Spaatz, Chief of Staff of the U.S. Air Force in 1947 and 1948, in the Library of Congress.
The Diary of Admiral Leahy, Military Chief of Staff to Presidents Roosevelt and Truman from 1945 to 1950, in the Library of Congress.
The papers of Air Force General Ennis C. Whitehead, Commanding General of the Far East Air Forces and later of the Continental Air Command and the Air Defense Command, at the Air University.
The Columbia University Oral History Collection, which contains interviews of United States Navy Admirals Ballentine, Connolly and Fechteler, among others.

The papers of Major General Orvil Anderson, first Commandant of the Air War College from 1946 to 1949, at the Air University.


The papers of Lieutenant General William E. Kepner, Chief of the Atomic Energy Division, USAF, at the Air University.

The records of the following prominent civilians have been equally important to this study:

The papers of Joseph and Stewart Alsop, journalists who were widely acquainted in governmental circles and highly influential on key military and diplomatic issues.

The papers of Judge Robert Patterson, who succeeded Henry L. Stimson as Secretary of War, in the Library of Congress.

A study made by Dr. Theodore von Karman and associates for General Arnold on the future of science in warfare, and entitled "Horizon," at the Air University.

In addition to the above, the author has relied extensively upon an unpublished manuscript by Dr. Robert Frank Futrell of the USAF Historical Division: Air Force Historical Study No. 139 -- Ideas, Concepts, Doctrine: A History of Basic Thinking in the United States Air Force, 1907-1964," and also upon an unpublished Master's Thesis by Major Kenneth Moll, entitled Nuclear Strategy: 1945-1949, prepared for the University of Omaha.
Two published sources are so outstanding as to deserve special mention: The well-known Forrestal Diaries, edited by Walter Millis, and especially The Journals of David E. Lilienthal: The Atomic Energy Years, which despite their candor and surprising revelations, have received little attention.

Most valuable for the purposes of this study have been the Spaatz Papers and the Alsop Papers. The Spaatz Papers, consisting of more than three hundred filing cases, have been available for many years at the Library of Congress. That they should have been ignored by scholars is surprising. Not only did General Spaatz command the forces which delivered the first atomic bombs—he commanded the world's only atomic-armed force for some three years afterward. This was the period in which the Cold War between the United States and its allies and the Communist Powers took form.

Researchers of the "revisionist" or "new" left school have neglected to examine much fundamental evidence from the period which is the central target for their revision. Christopher Lasch has written in the New York Times of January 14, 1968, that "revisionist" historians maintain "the United States did as much as the Soviet Union to bring about the collapse of the wartime coalition." He explains:

The revisionist view of the origins of the Cold War, as it emerges from the works of Williams, Alperowitz, Marzani, Fleming, Horowitz and others, can be summarized as follows. The object of American policy at the end of World War II was not to defend West or even Central Europe but to force the Soviet Union out of Eastern Europe. The Soviet menace to the "free world," so often cited as the justification of the containment policy, simply did not exist in the minds of American planners. They believed themselves negotiating not from weakness but from almost unassailable superiority."
William Appleman Williams, according to Lasch, "has done most to promote a revisionist interpretation of the cold war." Williams writes that the Russians "viewed their position in the nineteen-forties as one of weakness, not offensive strength." Lasch summarizes for the revisionists: "American statesmen...unlike the British, were in no mood to compromise. They were confident of America's strength and Russia's weakness (although later they and their apologists found it convenient to argue that the contrary had been the case)."

Highest praise for thoroughness is bestowed by Lasch upon Gar Alperowitz: "Next to Williams' *Tragedy of American Diplomacy*, the most important attack on the orthodox interpretation of the cold war is Alperowitz's *Atomic Diplomacy*...He has made it difficult for conscientious scholars any longer to avoid the challenge of revisionist interpretation." Lasch says Alperowitz uses "official records, memoirs of participants, and all the unpublished material to which scholars have access" and "proceeds with a thoroughness and caution which, in the case of a less controversial work, would command the unanimous respect of the scholarly profession....It is a work in the best--and most conservative--traditions of historical scholarship" and "challenges the official explanation of the beginnings of the cold war at every point."

Alperowitz's book is indeed a contribution. Yet, despite Lasch's enthusiasm for "conservative" methodology, Alperowitz completely overlooks or evades major issues, such as whether the cold war had not already begun before the hot war in Europe was over, and whether the atomic bomb--literally one during the period he writes about--was so powerful as to give American planners so much confidence in
"unassailable superiority."

Unfortunately, for the purposes of history, neither the "revisionists" nor the "apologists" have made use of those records most pertinent to the point in question. Russia's "weaknesses" surely did not include the Red Army, which maintained a strength of 175 divisions. This victorious army of five hundred divisions at the end of the war, was the most powerful land force ever. It was a force which Western Europe feared and Eastern Europe could in no way resist. What American strength was available to stop this army? What confidence had the military men charged with responsibility for plans and preparations against this threat? The answers to these questions, among other, are sought here.

Perhaps Alperowitz and the other revisionists were influenced by the confident public announcements of the statesmen and diplomats whose attitudes impressed them. They may have thought it unnecessary to examine the views of the more plain-spoken soldiers, sailors and airmen, even though the statesmen and diplomats often listened to them in private.

Franklin Roosevelt often bypassed his civilian secretaries to deal directly with his military commanders, and he even asked to be addressed "as Commander-in-Chief," not as "President." Thomas Finletter, Secretary of the Air Force under Truman, spoke somewhat enviously of General Omar Bradley's "war record, achievements and personality" and complained "It's understandable that a president would say, 'I don't want to talk to any of those dull Secretaries. I don't want to bother with them. Let me see Omar'."
In recent years, the public standing of military leaders as professional advisors to statesmen has been compromised by pressures upon them to make statements in support of policies based upon political expediency. For example, in 1948 the Chairman of the Joint Chiefs of Staff warned the Secretary of Defense that the $4.4 billion budget ceiling for 1950 was "insufficient to implement national policy in any probable war situation that can be foreseen." Yet his testimony before Congress, also off the record, was "we can afford only a limited amount for defense, and must look forward to diminishing appropriations for the armed forces." Meanwhile, his numerous public statements indicated the meager military budget was both safe and wise.\(^5\)

In the same year Secretary of State General George Marshall warned Secretary of Defense James Forrestal against making public "a stark comparison...between the forces disposed of by the Soviet Union and those of the free world" and requested "a note of confidence in the ability of free Europe backed by us to give pause to the Russians." The only note of confidence the basically honest Forrestal could produce was "the capacity to make the atom bomb" which would "not necessarily turn the scale of war" but would "dissuade from aggression any nation that believes we have sufficient military strength to put it to effective use."\(^6\)

Marshall's comments as Secretary of State indicate that differences in attitudes between State officials and Defense officials may result more from differences in responsibility than from differences in background. Yet there remains the problem of the "military mind" which many scholars, especially non-military historians, attempt to reduce to a stereotype as familiar as that of the absent-minded and
impractical professor. General Benjamin Chidlaw once expressed satisfaction in belonging to a profession "said to have a mind," but military men often are plagued by attempts to isolate "good" military minds from the normally "bad" ones. Even the tolerant David Lilienthal observed "army minds live on the worst possibilities, all except the sensible ones like Bradley and Eisenhower." 7

In a recent popular text on American government James N. Murray, Jr. states: "While there is no precise definition of 'the military mind,' the phrase itself indicates certain predispositions, inculcated by rigid training, that are inappropriate for forming public policy. The text quotes Professors Richard Snyder and Edgar Furniss on "five attributes that seemed to represent a consensus on just what the military mind involves." These attributes are "rigidity," based on tradition rather than recent experience; "inability to understand complex politico-military problems"; "disrespect and disregard for civilian authority"; "isolation from non-military knowledge"; and finally "judgment...in terms of military force and total victory from total war." They say "clearly these qualities would rarely be found completely dominant in one military leader. Rather, they typify collective attributes which are shared in at least a minimum degree by all military personnel." Murray admits there are schools where officers are trained in the political-economic aspects of international relations but warns they may "produce officers who, because they understand the point of view of their civilian counterparts, are just that much more effective in persuading them to their viewpoint." 8

The possibility that a military viewpoint might sometimes be appropriate is ignored.
General Lawrence Kuter, on the other hand, noted in 1952 that in 12 years the number of regular officers in the air branch had grown from a few hundred to twenty-two thousand and asked how all could have developed "military minds" so fast. Bernard Baruch, whose father was a refugee from Prussian militarism, commented that "no group of men has better served America and her democratic traditions than our military leaders" and added "I reject the notion that there is such a thing as the 'military mind'." Since observers seem to be of no one mind on this subject, we may proceed to examine the varied thoughts and actions of military leaders as they have been and are, rather than postulate what they are assumed to be.

In the course of reviewing the recommendations of military leaders--and measuring their influence, or lack of influence, upon the policies of statesmen--it becomes clear that they are as mixed a lot of personalities and tendencies as may be found in any profession. The requirement for blunt and categorical statement imposed upon all men who deal with emergencies has caused their inconsistencies and contradictions to be more apparent than is the case with more stabilized occupations. The smoother transitions of practiced scholarship usually escape them. Professor W. Barton Leach once described the Air Force as "The Silent Service" so far as writings by senior commanders was concerned, and an air officer admitted "air activities have most often attracted men of active rather than literary leanings...the Air Force has never boasted a high percentage of scholars."

An effort was made in the Air Force to turn this academic deficiency to account. Historian Robert Frank Futrell relates that after
long resistance to Army and Navy dogma senior Air Force officers 
"discouraged the preparation of air doctrine because they felt that 
air doctrines were too short lived to warrant publication. Word of 
mouth generally sufficed to keep senior air commanders well abreast of 
Air Force policy, and it was much easier to scrap the worn out doc-
trine that remains unpublished than it is to drop a doctrine that has 
been published."\textsuperscript{13} This aversion to opinion frozen into print often 
extended to reading as well as to writing. General Spaatz considered 
Billy Mitchell the greatest apostle of air power, but when questioned 
as to whether Mitchell "visualized attacking industrial systems" 
Spaatz replied: "I don't know how much he has covered about that in 
his books but he did cite those things in his conversations."\textsuperscript{14} 

If a study of the division between soldier and scholar be pursued 
to the present it is possible to conclude that it has now been 
superseded by the division between scientist and humanist in the 
present culture. Astute Swiss observer Urs Schwarz remarks that mili-
tary men during and after World War II came "to like and respect the 
professors, since they were the realists, the masters of facts, where 
the conventionally trained officer often had to base his work on vague 
opinions." Schwarz refers, of course, to professors of the physical 
and statistical sciences, and he states further that 

The military leader has abdicated, too readily, in many 
cases, before sophisticated discussions of strategic 
problems by civilian military analysts. Even when we 
admirt that in a modern technological environment all 
problems of armament, equipment and deployment have to 
be investigated by scientific methods, the final 
decision on what is to be achieved, when and how, is 
one of leadership, and not of science.\textsuperscript{15} 

Surprising as it may seem, military leaders of the period covered
in this study were on the side of the humanists rather than of the scientists. Only the expansive personality of General Hap Arnold extended into both cultures to combine a coldly realistic calculation of the future with the spirited Humanism of the past. Many scientists have in more recent years attempted to make the same transition, most of them with less conspicuous success. The sacrifice of principle to end World War II as quickly as possible and to achieve maximum destruction with each atomic bomb demonstrates this point very well (Chapters 2, 4, 5 and 7 of this study). Dr. Oppenheimer's enthusiasm for the atomic bombing of a city and General Spaatz's efforts to substitute another target provide an interesting contrast to popular notions of scientist and air commander (Chapter 4).

In addition to a lack of cultivation of the art of formal exposition among the military men who have been most influential, there is another circumstance which may have contributed to a neglect of their thinking by historical scholars. Military planners in the period after World War II had to begin to think about the atomic bomb. Many tried to avoid thinking about it but others, particularly in the Air Force, had to face up to the entire problem. Hand-wringing and waiting for world government was popular everywhere for the first few years, but the first atomic blast in Russia forced men of action to concentrate on the problem as expressed by Air Force Chief of Staff Vandenberg: "The atomic bomb is not a mere theory. It is not a bad dream. It is a towering reality...and the decision as to whether the atomic bomb shall be used can no longer be made entirely by the United States."
"Truly men hate the truth; they'd liefer meet a tiger on the road" said the poet Robinson Jeffers. It is the business of military planners to meet tigers, in their minds, while other men are engaged in passionate postponement of such encounters. Amid much frantic advice to flee the nuclear tiger or to ignore him, the road to meet him was a lonely one. Only a few scholars, and they were mostly from the physical sciences, volunteered to aid military men who tried to prepare against the possibilities and probabilities of nuclear war. Outstanding among them was Herman Kahn, a "jolly, fat, bespectacled physicist" who, in the words of journalist Jack Raymond, "looked the Gorgon of nuclear war in the face without becoming petrified with fear." Kahn was bitterly attacked by many intellectuals for having studied the problem at all. The eminent mathematician James R. Newman, reviewing Kahn's "On Thermonuclear War" exclaimed "Is there a Herman Kahn? No one could write like this; no one could think like this." Many military men have had to think like Kahn and write their inadequate solutions in secret papers over the past twenty years. The first five years may or may not have been the hardest, but they were not pleasant, as the record shows. Joesph Alsop recorded the story of two prominent American psychologists assigned to study the psychological impact on the American people of a major atomic attack....One of these, a social psychologist... became, after two years of study, so gloomy over his findings that he moved his family to a cattle ranch in northern Florida. The other, an equally serious psychologist, finally threw up his hands and departed to the wastelands of Nevada. It may be said for these men that at least they did not throw up their hands until they had studied part of the problem, and that their escape from it did not disturb others who could not or would not run
away. These and other indications of the heavy burden of honest thinking about nuclear danger may inspire a tolerant sympathy toward the men of all nations who were responsible for decisions during the five years preceding the Korean War. Whether they avoided global disaster or merely postponed it to a time of far greater terror remains to be decided.

Historian Kenneth Moll, who has examined this period most carefully, concludes that "America's military were slow to understand the implications of the A-bomb." The weapon which was used with too little hesitation over Hiroshima and Nagasaki rapidly became the subject of confusion, regret or passive apprehension. "Judgments tended to be colored more by service loyalties and stereotyped thinking than by an imaginative examination of the facts." Air Force research specialist General Roscoe Wilson informed Moll that only after the second series of tests could many military men "be convinced of the weapon's real nature." General Leslie Groves advised that "many simply closed their eyes, preferring not to wrestle with the problems and implications." Air Force nuclear specialist General James McCormack believed that Groves' own "monopoly and secrecy inhibited military thinking on A-bomb implications." 20

Yet it must be remembered, as Walter Millis has pointed out, that the A-bomb caused a "transformation in the whole character of war itself." 21 Moll suggests that "the military should not be condemned too severely, for they were dealing with unprecedented problems. Ultimately their adaptation to the A-bomb was more effective and more rapid than any prior military acceptance of a major new weapon." Russian comprehension of the new weapon's significance was apparently
much less rapid and there was no open discussion of it in that country for several years, a fact which has interesting implications, as will be seen.22

The author agrees with Moll's major conclusions as to the attitude and performance of American military men in general. This study concerns itself also with other questions and with answers, or partial answers, derived from an unusual selection of material. The resulting indications, expressed in over-simplified and therefore tentative form, include the following.

Military dogma inspired a blind determination to invade Japan and delayed the arrangement and acceptance of a Japanese surrender (Chapter 3). This is contrary to the Blackett-Alperowitz thesis that the delay permitted dropping the bombs in order to frighten the Russians. It also varies from the more common explanation that the delay was due simply to a series of misunderstandings.

The inept selection of targets for the two bombs was influenced by the hasty development of a new bombing policy (Chapter 1). Target selection was controlled primarily by scientists and senior administrators of the Manhattan Project through their influence on government officials who were not prepared to deal with the problem (Chapter 4).

For the American military men and diplomats who were in contact with the Russians, the Cold War began to intensify shortly after Stalingrad, when the Russian government officials felt sufficiently confident to assume a more hostile attitude toward Americans who were trying to help them (Chapter 3).

After Nagasaki, American military leaders were among the most fervent supporters of the United Nations and of "world government."
Army leaders in particular were awed by the Red Army and consequently hopeful of Russian friendship while Air Force leaders were especially anxious for the international control of the dangerous atomic weapon (Chapter 5).

Many scientists, along with a few military men, possessed an immediate and clear picture of the future power and significance of nuclear weapons, but their naive notions of foreign and domestic politics defeated most of their energetic and well-meaning efforts toward alleviating the threat (Chapter 6).

Traditional suspicion and fear of centralized military administration, stimulated by the traditional determination of the Navy Department to remain independent, deprived the United States of unified military planning and control during a most crucial period (Chapters 8 and 9).

Drastic limitations on military budgets and manpower, inspired by domestic political expediency and stimulated interservice controversy, forced American policy makers into increasing reliance on the atomic bomb as a counterthreat (Chapters 9, 10, 11 and 13).

An inexplicable excess of optimism within the Administration concerning the capabilities and the intentions of Communist Powers, which persisted even after the Russian atomic explosion, helped to bring on the Korean War. In turn, this disillusioning emergency rescued American military preparedness from a decline that could have produced a much greater disaster (Chapters 12 and 14).
Foreword--Footnotes


5. Colonel N. F. Parrish, Memorandum to Chief of Staff, USAF, on a budget policy proposal by Dr. W. Barton Leach of the Harvard School of Law, March 2, 1950, Author's notes.


13. Robert Frank Futrell, USAF Historical Study No. 139, Unpublished, Air University.


16. General Hoyt Vandenberg to Detroit Economics Club, May 19, 1950, Author's notes.


24. Walter W. Rostow, *The U. S. in the World Arena*, Harper, New York, 1960, p. 141. "Narrowly, the Cold War may be dated from the time that the Politburo was clear that Stalingrad would hold--roughly from the beginning of 1943."
Chapter I

Bombing: Before the Bomb

They carry guns—and wheel in heavy black

Above the cities, till the earth blossoms beneath

In furious fires; they battle, wing to wing,

Clashing in the blue; and threaten such disaster

As this grey earth has never, until now,

Witnessed or shuddered at across the night;

They carry for crews a special, steel nerved race....

John Williams Andrews
Prelude to Icaros, 1936

We may not indulge in ethics before dealing seriously
with history.

Robert Batheolde

Ever since the development of artillery, military commanders and
their governmental superiors have been increasingly puzzled about the
selection of targets. Longer range produces a wider range of choice.
More destructive projectiles intensify and spread the damage that can
be inflicted. The problem of selecting the target whose destruction
will contribute most to the purpose of the campaign is increasingly
complicated by the question of whether to inflict, or to avoid,
additional damage.

When a staff or a commander develops a precise plan of action
which specifies targets the officers in the field may be unable to
follow the plan. The specified targets may be hard to find; appro-
priate substitutes may not be readily identified. When this happens,
as it often does happen, there is a tendency to use weapons for immediate and visible effect on any target within reach. Important but difficult objectives may be neglected in favor of more obvious though less critical targets which in many cases should never be struck at all. The sacrificing of long range purposes for immediate results may increase as a war continues.

As war follows war and weapons increase in range and power the consequences of improper and imprecise target selection become more tragic in terms of suffering and loss among civilians. The problem arises in this respect alone, for among the military the greater decisiveness of powerful weapons apparently has compensated for their greater destructiveness. The rate of military casualties has not increased. Statistical studies by Dr. Quincy Wright and others refute the popular assumption that modern wars have been increasingly lethal overall. General Raymond McClain reported in 1947 that "in no major battles of this war did we suffer the casualties for similar numbers and time as in World War I." For both world wars the percentages of casualties were lower than for the Civil War and for the Napoleonic wars.

Although guns, planes and rockets of greater range and power have brought decisions in warfare without more casualties among men in uniform, the percentage of casualties among civilians has increased in recent years. This is particularly true of the casualties resulting from weapons carried by planes. For this reason the act of bombing has often been regarded as immoral or unfair.

Air Marshal Sir Robert Saundby has made an interesting case for bombing as compared to other methods of winning a war. He has argued
more efficient and less bloody control of Arab tribes was achieved by air surveillance in the Middle East for ten years following World War I. He has claimed that the advantages of a less costly decision in World War II resulted from the heavy bombing of both Germany and Britain. In World War I Britain lost one million of her healthiest young men. In World War II the casualties were only one-third that amount, and one-fifth of these casualties were not the young men Sir Robert considered most vital to the nation's future.  

Despite the logic of these observations, the problem of long range target selection continues to haunt the nations whose technical skill combined with reluctance to suffer casualties has led them to expend firepower rather than manpower. The tradition that it is better to kill many soldiers than just a few civilians persists, and not entirely without reason, since the ostensible mission of soldiers in the modern nation state is to protect the civil population. It is ironic that the most technically advanced and civilized nations have bombed more civilians in recent wars.

Liddell Hart argues that naval powers since the sixteenth century have been more "barbarous" in this respect than Continental powers which depend upon land armies. Naval forces had not only to control the seas but harbors and coasts, which involved destructive raids and indiscriminate bombardment. To airmen, the entire enemy landscape is a hostile coast.

Here again the superficial judgment may be wrong. Evidence that land invasion as compared with bombing has been more costly to civilians, as well as to the military, is overwhelming. Of the 18 million civilians lost in World War II, more than half of them in Russia, only
one million died in bombing raids. Further, the deliberate bombing of civilians was inaugurated by a German Zeppelin over Antwerp in 1914 as one of several terror tactics to soften the route of land invasion. The land invasion proved much more terrible, and no more decisive, than all the bombing.

The principal casualties of the Korean War were the millions of South Korean civilians killed in the land invasion from the North, just as the heaviest casualties of the war in South Vietnam have resulted from guerilla attacks against towns and villages. Major General Edward Lansdale, the famous organizer of effective counterinsurgency operations in the Philippines and in Vietnam, tells of an American platoon commander who passionately opposed the use of artillery and even of rifles after his guns had mistakenly destroyed a village which had been abandoned by enemy forces and reoccupied by friendly civilians. He regretfully maintained "we should fight only with knives, for in no other way can we know for sure who is being attacked."

The special fear of attack from the air, which existed before the atomic bomb, is more psychological than logical, but it is nonetheless real. The rape of Berlin by the Red Army was, to all accounts, more terrible than attacks by American and British planes, but it was less impersonal and it had a beginning and an end, while the air raids were intermittent and unpredictable. Destruction from the sky inspires its own special dread. This kind of dread, magnified by memories of the panicky reaction of London to the Zeppelin and Gotha raids of World War I, contributed heavily to the British appeasement of Hitler prior to World War II.

As early as 1932 Stanley Baldwin was warning the House of Commons:
I think it is well also for the man in the street to realize that there is no power on earth that can protect him from being bombed. Whatever people may tell him, the bomber will always get through....The only defence is offence, which means that you have got to kill more women and children quicker than the enemy if you want to save yourselves. I mention that so that people may realize what is waiting for them when the next war comes...and European civilization is wiped out, as it will be, and by no force more than that force, then do not let them lay the blame on the old men.  

Just six years later Prime Minister Neville Chamberlain, who ranks ahead of Baldwin as a symbol of defeatism, paved the way to appeasement to Hitler at Munich by issuing 35 million gas masks to Englishmen. The very expensive inference was that if Britain actually went to war the islands would be bombed with gas. The facts were that the Germans had neither the plans nor the equipment for a massive gas attack.

The gas mask was the favorite symbol employed in the late nineteen thirties by pacifists and others who advocated non-resistance to Hitler. The original inspiration for alarmist warnings of impending air-gas warfare derived from the writings of Giulio Douhet, an Italian general, whose famous book The Command of the Air was published in Italy in 1921. The book attracted attention because it offered one means of breaking the suicidal deadlock of trench warfare that had developed in World War I, and also because it seemed to prophesy doom. Douhet advocated victory through unrestricted air warfare based entirely on fleets of bombers that would eventually saturate and destroy all defenses. Few remembered that Douhet advocated gas bomb attacks. He was aware that other bombs would not have been very effective against cities in the very small tonnages that planes could carry in his day.
"Douhetism" appealed to French and British statesmen who dreaded taking a stand against Hitler. It frightened their people into the same attitude. The similar but more reasonable "air doctrine" of the period appealed to a few airmen and bolder statesmen of England because it seemed to offer the only hope of resisting Hitler successfully. The nation had by no means recovered from the loss of a million young men in World War I. Another long and costly deadlock on the Continent seemed pointless, no matter what the outcome might be. Churchill and a few other leaders in England felt that the Royal Air Force could outdo Goering's Luftwaffe, if given the means, and stop Hitler without sacrificing the nation's future in the process.

Except for these few bolder leaders, British policy, as Joseph Alsop has expressed it, "was utterly paralyzed by the specter of Hitler's Luftwaffe." Prime Minister Baldwin had thrown aside reports on its growing strength, with the pettish comment "more damn stuff about German airplanes." Just four years later "the aged Baldwin had to be warned not to show his face in the streets of wartime London, lest he be stoned."16 The "old men" were blamed after all.

After the British were forced into their war of desperation, they failed to attempt an invasion of Germany in relief of Poland and were driven from the Continent at Dunkirk. The burden of what to do next fell more and more on the Royal Air Force Bomber Command. The Bomber Command was ready, at least in spirit. Its tradition of offensive air warfare antedated Douhet by several years. Walter Rostow, who was commended by General Carl Spaatz for his work on air targeting during the war, states that in 1941 the British viewed the war against Germany as a series of peripheral operations "to be combined with the
very heavy bombardment of German cities designed ultimately to break German morale." Lord Alanbrooke recalls that in the spring of 1941 the attitude "that the war could best be won by a vast bombing effort" was growing fast. Churchill, after the costly commando raid on Dieppe, found opinion still divided as to whether air power by itself could win but said there was "no harm in trying." All this was possible only after Churchill had provoked, and the RAF had won, the Battle of Britain.

Churchill became Prime Minister on the day the German panzer divisions pushed into France. That night the RAF made its first attack inside Germany. The commander of the Royal Air Force, after he had frittered away part of his strength in the battle for France, was glad to strike at targets in German cities through the summer of 1940. The Germans did not take the bait, but held their planes to their intended job of whittling down the RAF defenses by attacks on its airfields and communications and on especially vulnerable targets, such as fuel tanks, in the British Isles.

Finally, on 24 August, a dozen German planes strayed over London in error and dropped a few bombs on the central city. The RAF retaliated immediately with a week of night raids against Berlin. Since he had boasted that this could never happen, Hitler had no choice but to begin the bombing of London—with the RAF fighter defenses still intact.

Some six years earlier the prophetic Prime Minister had called the exposed city "a tremendous fat cow, a valuable fat cow, tied up to attract beasts of prey." Much of London burned, but the RAF Fighter Command, relieved from attacks against itself, won its decisive battle.
Much of the Luftwaffe which had been drawn up to support the planned invasion of England was expended. Having offered its own great city in successful sacrifice, Britain now had few inhibitions about "area bombing" against German cities.  

Five years to the day after the first British air raid against Germany in World War II, General Hoyt Vandenberg of the United States Air Force, asked Marshal Goering, former commander of the Luftwaffe: "Will you tell me why you bombed cities in England instead of concentrating on aircraft and engine factories?" Goering replied that after British attacks on German cities "the people were angry and I was ordered to attack indiscriminately." As Vandenberg suspected, Goering knew how foolish it was.

So began a series of events and decisions that would lead at last to the atomic bomb on Nagasaki. Few suspected at the time that events and decisions would lead so far.

A witness to the Battle of Britain was the U.S. Air Force commander's trusted deputy, General Carl Spaatz. He noted at the time "that the Germans made serious blunders, particularly in their concept of air warfare" when they bombed London. The United States Air Force, as General Vandenberg's question to Goering indicated, was never enthusiastic about the bombing of cities. When General Spaatz returned to England in 1942 as the American air commander in Europe, there began a long argument between British and American airmen on the question of area bombing versus precision bombing. The differences were never completely resolved.

The friendly controversy over bombing objectives continued even beyond the war. In the interview mentioned above, General Spaatz
asked Goering: "Which had more effect on the defeat of Germany, the area bombing or the precision bombing?" Goering replied: "The precision bombing, because it was decisive. Destroyed cities could be evacuated, but destroyed industry is difficult to replace." This was the answer everyone, by this time, expected to hear. General Spaatz had gambled many of hundreds of American lives and planes on its truth, and he had won the gamble. It was not an easy faith to maintain and it was difficult even to gain permission to attempt it. Yet, despite the cost and uncertainty of precision bombing efforts, the deliberate bombing of civilians in cities was at the time decidedly un-American. The famous first advocate of city bombing was not read by American airmen and he was completely unknown to most of them.

The ghost of Douhet, who advocated the most ruthless form of city bombing as a total war strategy, has often been raised—and usually in the wrong places. Even so conscientious an historian as Carroll Quigley accuses American airmen of "Douhetism" before World War II. United States Navy Admiral Richard Connolly said in 1960 that General Arnold and others were "saturated with the old Douhet theory...I've talked to enough of the high priests of the cult to know it." Yet Dr. Bruce Hopper, who worked closely with General Spaatz during and after World War II was "astonished" even to find "parallels" to Air Force views in Douhet's book. Spaatz once recognized Douhet, whom he has never read, as having had "considerable influence," but considered him second in importance to Viscount Trenchard. Spaatz added "it was believed at the time and later proved to be true, that Douhet had under-estimated the capacity of the armed fighter to defend an area against the bomber."
General Billy Mitchell, the principal proponent of air theories in the United States, talked to Douhet on a visit to Italy, after his own ideas were formed, but he never mentioned Douhet in his writings. Finally, Douhet was not translated into English before World War II, and few U.S. Air Force officers read Italian. There did exist in English a five-page extract from Douhet—in the files of Air Corps intelligence.30

Surprisingly, there appears to be a greater connection between the evolution of U.S. Air Force theories of warfare and Admiral Alfred Thayer Mahan, high priest of Navy doctrine. Urs Schwarz has noted that Mahan's writings "prepared the ground for newer estimation of the role and capabilities of air power."31 Admiral William Sims, the brilliant Chief of American Naval Operations in World War I, agreed with General Billy Mitchell air power was a global force at least comparable to sea power. The leading civilian proponent of air power in recent years, Alexander de Seversky, derived his concept of global air warfare from his study of the global sea power principles developed by Mahan.32

When Spaatz and his B-17s arrived in England they shared one important characteristic with their respected allies of the Royal Air Force: each group had always done its own thinking. The British airmen, though more articulate than the Americans, had never been bookish. As Sir Hugh Lloyd put it "our first air college in 1926 was not popular. We wanted to fly and not be huddled up in a classroom all day."33 Yet the more experienced British tried to teach the Americans their hard-learned theory of how to win the war in the air.

As Lord Tedder summarized it for Spaatz after the war, the RAF
had avoided "area bombing" until late in 1940; then their crews were
told to bring no more bombs home after failing to find their primary
targets, but to drop them on targets in "built-up areas," if necessary.
After the German attacks on England, German towns were specified as
secondary targets. Ultimately, industrial "areas" were sometimes
assigned as primary targets, to disrupt the "morale" of the workers.
This was not as effective as had been hoped, Tedder admitted, for "our
economic intelligence is now proved to have been seriously at fault." 34
Psychological intelligence on the effects of bombing residential areas
was even more at fault.

Viscount Trenchard, called by the RAF the "father" of their inde-
pendence in the early nineteen twenties, said

Frankly, just among us here today, the British and the
Americans...perhaps the Americans even more so, were very
much against dropping bombs on civilians....We of the
Air Force said the Germans would do the bombing when
they were ready....The Germans were holding off because,
if anything, they were more uncertain than we were as to
how their civilians would stand up to it. But I must
say, I think American public opinion had great influence
and was strongly against killing civilians.

The elderly Viscount's frank comments revealed the influence of
circumstances that changed British practice early in the war, and also
revealed his own divided mind on the matter. "When we went out at
night, we went to hit factories. At first we thought we were hitting
them but then we knew damn well we weren't....The intention of damaging
war potential was good. The intention of both forces, day and night,
was to destroy factories." The United States Forces, he said, stuck
with daylight bombing and turned to fighter escort when opposed. "We
could have done it if we had a bomber worth a damn."

Trenchard did not dodge the controversial question of "bonus
effects." He said that he would choose a target in a city over the same target in a desert. "It may be brutal, people are bound to get killed...but the particular munition of war being made there will also be affected because of the dislocation and the interruption." He would not bomb workers as a primary target, but he had a word of sympathy for "Bomber" Harris, wartime chief of the Bomber Command, who did. Harris's book in defense of city bombing, said Trenchard, showed only the "material" side of his character. "You would never believe from his book how many nights that chap held his head in his hands, worrying about how many would not come home."  

Viscount Trenchard's off-the-record comments are especially interesting as an example of the moderation which was characteristic of the older air officers both in England and America. (It will later be seen that among scientists the younger were, during the war, more inclined toward restraint; but this was not true after the war.) Trenchard's defense of Harris, who is now considered the villain of British bombing policy, indicates a combination of sentimentality with "coldblooded" realism which was not uncommon. Harris did lose a lot of airmen, and was most saddened by the fact that, as he ruefully admitted in his book, the results were not worth the sacrifice.

Lord Tedder's admission that "economic intelligence" was at fault was an understatement. Judgment was at fault. This was revealed when British scientists introduced a system of statistical analysis called "Operational Research." These studies showed that the night raids on cities were killing no more than 400 Germans per month in exchange for half that number of British crewmen and the planes that carried them. Worse still, the expected shock to "morale" in Germany, always
a nebulous goal, simply did not occur, just as it did not occur in England. For some reason, the near-panic of civilians under air attack in World War I was not repeated. Air Marshal Slessor explained "No one before the war could possibly have foreseen what civilian populations turned out to be able to endure in the way of air bombardment."37

Very heavy losses were inflicted on German civilians in World War II. The British fire raids against Hamburg in July of 1943 were the most terrible. Forty thousand were killed, including five thousand children. A quarter of a million houses were destroyed, which was half the city. But in the entire war some 330,000 German civilians were killed as against half that number of British and American airmen.38 Most of the eighty thousand or so British airmen were lost on area bombing raids now believed not worth the cost. United States air losses also were heavy over Germany (24,000 of the 34,000 U.S. officers lost in World War II were Air Force officers), but the results achieved by their efforts were more decisive.

Viscount Trenchard and Lord Tedder have explained how the British bombing policy was influenced in the direction of city bombing by the difficulty of finding and hitting smaller targets. Exactly the same process was repeated later by American air commanders in Japan. Over Germany, despite difficulties, they held to their original faith that the problem of concentrating on precise military and war industry targets could be solved.

The commitment of the United States Air Force to the precision bombing of specifically chosen targets in Europe was not based on knowledge or assessment,40 and it ran counter to British experience and advice. It was based on faith and ideology. In this instance, in
contrast to the invasion dogma that prolonged the war against Japan, the ideology was sound and the faith, through perseverance, was vindicated. American airmen, however, thought their doctrine not a "faith," but a simple, and obvious, necessity. General Lawrence Kuter cautioned William Haines, author of the novel and play Command Decision, which dealt with this issue, that precision bombing was more than a "tactical principle." It was "the only method of turning off hostile power at its source."¹ When American airmen arrived in England they were willing to learn, and also ready to teach.

"The extraordinary ease--almost casualness--with which a sketchily organized American staff could promulgate strategic as well as tactical doctrine can only be explained by the existence of a predetermined pattern of thought, common to all Americans and tacitly accepted as immutable truth." The American forces brought to Europe a "confidence in the possibility of an offensive" and "their strong belief in the concentration of forces."² Urs Schwarz was writing about General Pershing's staff in 1918, but his words are equally applicable to that of General Spaatz in 1942. The Eighth Air Force was the first American unit to go into action in Europe, and at first things did not go well for the leaders of the Eighth or for their "immutable truths." Their airplane, the B-17, was a good one but the American force was weak in numbers, armament and fighter support. German armament and interceptors were superior. General Spaatz had occasion to remember that before the war the Luftwaffe had seven times as much to spend on development of such items as had the U.S. Air Force.³ Unescorted bombers were shot down. The Eighth could not penetrate deeply into Germany in daylight, and its bombs were scarcely effective against the
massive German submarine shelters on the French coast.

Just at this time, in mid-1943, the British were achieving their most notable successes against Hamburg and Berlin and they pressed the Americans to begin a night campaign against cities. But Churchill, with his unusual insight, was tolerant of American stubbornness, and the shallow but costly penetration of a growing German air defense system was allowed to continue. (As Goering would later remind Spaatz, "Only the diversion of the Luftwaffe to the Russian front saved England" and made these operations possible.) On the defensive for the first time, the efficient German aircraft builders were beginning to turn out excellent interceptors at an amazing rate. Unless the new aircraft plants were knocked out, precision daylight bombing would be less possible than ever. Unable to wait for more bombers and still lacking fighters for escort, Major General Fred Anderson pushed his crews deep into Germany sixteen times between July and December, 1943, to destroy half of German fighter production and force dispersion which delayed German progress by three months. (This decisive operation was the subject of the novel, play and movie Command Decision.)

Just two months after this campaign, in February of 1944, the Luftwaffe and its manufacturers were beginning to recover. A decision had to be reached. It was calculated that American raids concentrated on precision against the new plants and fighter defense would cost a hundred bombers.

General Spaatz made this extremely difficult command decision knowing that either the Americans had to act on their Air Force concepts, and take their losses, or admit they had been wrong....Following fundamental military principles, the breakthrough was driven home day after day, despite the strain on the crews (and the understandable resistance of their commanders) until
normal winter closed in again.

Losses were heavy, though not as heavy as predicted, but German losses were decisive.\textsuperscript{46}

During "Big Week," February 20th to 25th, 1944, the bombers and escorting F-51 fighters directed by Generals Spaatz and Anderson again cut German fighter production by fifty per cent and this time defeated the desperate German fighter defense force in continuous battle. The experienced pilots lost by the Germans were never replaced. The defeat left their aviation fuel and air training fields open to repeated attacks.\textsuperscript{47} As Rostow expressed it, from first-hand knowledge:

"A generation of leaders, a form of operational doctrine, a set of mature staff concepts, and a fighting style crystallized over these decisive months. The character of the modern Air Force cannot be understood outside the context of that experience."\textsuperscript{48}

Gaining the upper hand over the German air force in that week of unusually good winter weather was but a prelude to the real strategic air offensive. As the Luftwaffe declined, new American planes and pilots arrived in ever greater numbers. Just as Air Force doctrine had indicated, the necessary control of the air, once established, permitted ever more systematic reduction of the total German machine. In this process the line between area bombing (city bombing) and precision bombing of industry, oil and other specific targets was not always distinct. Daylight bombing, which permitted better target selection, became less costly because of long range fighter escort and the saturation effect of more bombers as the war progressed. But consistent bad weather over northern Europe often made it necessary to divert to targets in or near built-up areas which could be identified
on radar scopes.

Nevertheless, the difference in emphasis between the British and American air forces continued. As target selection became more systematic two general goals remained identifiable:

Although in the end a military effect is sought, the field of battle (in strategic air warfare) is, in a sense, a war economy and its logistical lines of connection to the fighting fronts (for precision bombing), or the whole social system as it relates to military intentions and capabilities (for area bombing). 43

The latter of the two goals included what the British called "morale." British influence on joint pronouncements was evident in the instructions for the Anglo-American air forces drawn up by the Combined Chiefs of Staff at the Casablanca conference in 1943. Prescribed tasks for the Allied air forces included destruction of the German "economic system" and "undermining the morale of the German people." United States air doctrine, from the old Air Corps Tactical School at Maxwell Field, Alabama in the 1930's, said the real target was industry itself, not national morale. 50 In addition, American public opinion supported this view. The so-called "moral embargo" advocated by the Roosevelt administration just prior to World War II had not yet been forgotten. This was an effort to dissuade airplane manufacturers from selling planes to countries which had bombed civilians, as Italy had done in Ethiopia, Japan in China, and Russia in Finland. 51

Roosevelt spoke in 1940, as had Wilson in 1914, 52 with apparent conviction on behalf of humanitarian public opinion against the bombing of civilians. Yet, just as airmen were drawn into new and less restrictive precedents by circumstances of navigation, identification
and weather, so were American as well as British statesmen led to advocate more expansive bombing in the hope of sparing their own troops. Both Roosevelt and Churchill were especially enthusiastic about bombing, primarily for this reason.

Almost a year before Pearl Harbor, Roosevelt had instructed the Navy to consider the possibility of bombing Japanese cities. The "earlier American concept of Just Warfare--limitation of warfare to the combatant troops and the exclusion of the non-combatant civilian population" had begun to fade as Roosevelt visualized for Europe also "a war that might be won without engaging American armies in land combat."53 His hope that fantastic aircraft production for France and Britain would turn the tide against Hitler had been quenched by the fall of France. From that time on there was increasing expectation that Germany would be invaded.

Whether the invasion of Germany was necessary remains debatable. General Spaatz, who saw the Army Air Forces rise from a small force of 1600 officers in 1930 to a size of some two-and-a-half million--one third of the total Army--tried to give the ground forces their due by saying: "I doubt very much the war (in Europe) would have been won necessarily entirely by bombing."54 Rostow states that Germany could "obviously" have been hammered to defeat from the rim but the unconditional surrender formula and the war against Japan required the most rapid ending possible for the war in Europe.55

The impatient advance of American forces into Germany brought new demands for the destruction of German cities and towns, by bombing as well as by artillery bombardment. These demands coincided with the virtual completion of the strategic air campaign. Attacks on fuel and
transportation had virtually ended German war production by February of 1945, but there remained "enough guns and ammunition in being and in tactical dumps inaccessible to strategic bombers for costly ground warfare to continue. The bombers struggled to be useful, and their commanders felt deeply the irony of the situation where, at peak strength, they were unemployable" except on follow-up missions and minor targets. "It was in this setting of frustration that shattering but unnecessary attacks were made on Dresden and Chemnitz in the final days of the war in Europe."56

"Frustration" is not applicable for the famous bombing of Dresden, and on this issue even the well-informed Rostow is mistaken. The circumstances of the raid indicate no need for such an explanation and show further that the raid was in no sense a discredit to the American air commanders involved. Unfortunately, the full circumstances have never been related. Because this last great destructive raid in Europe became a major item in German propaganda near the end of the war in Europe, and in Communist, leftist and miscellaneous propaganda ever since the war, it may be worthy of examination in some detail here. The following summary is based on a thorough and fully documented study by Joseph Angell of the United States Air Force Historical Division, in January 1959, which was never made public.

Dresden, the seventh largest city in Germany, with a population of two-thirds of a million, escaped with less punishment than many German cities. Seven thousand tons of bombs were dropped on or near Dresden during the war, as compared with a total of thirty-seven thousand on Essen, a city of equal size, and a total of forty-four thousand tons on Cologne, a city which was only slightly larger.
The destruction of the central city of Dresden and almost all the casualties resulted from the one typical night area raid on February 14, 1945 by the British Bomber Command. Twenty-six hundred tons of mixed high explosive and incendiary bombs were dropped on or near the city's center by seven hundred seventy-two RAF bombers. This raid started a fire storm in the older portion of the city which resulted in destruction or damage to half its houses and the death of about 25,000 persons. The high death toll was due partially to the fact that the city, whose center had not yet been bombed, was crowded with refugees from Berlin and also by persons fleeing Marshal Koniev's armies which were already less than 75 miles east of Dresden.

It was to support the advance of the Red army that Dresden was bombed. At the Yalta Conference Stalin had directed General Antonov to indicate what assistance was required to aid the Russian advance. Antonov requested air action on communications lines (principally railroads) to prevent the Germans from shifting troops from the Western Front to meet the Russian advance. Dresden, with Berlin, Leipzig and Chemnitz were the key points through which these troops would have to be moved. On the day following the British night raid against the city, American bombers attacked, for the fourth time, railroad yards outside the central city.

Public Information officers at General Eisenhower's headquarters, in commenting on the Dresden raid, greatly exaggerated the casualties and erroneously implied that United States and British air forces had begun a joint campaign of terror bombing. The resulting press accounts caused United States Air Force headquarters in Washington to demand an explanation and to warn that established bombing policies must be
maintained. The Strategic Air Force headquarters in Europe reaffirmed the policy that civilian targets still were not suitable targets for American raids, that the American raids against the Dresden marshalling yards were not against the city itself and were not unusual. The purpose was to support the Russians on the Eastern front and the Russians appreciated the effort. These comments were then presented by General Marshall to Secretary of War Stimson and the incident was officially closed.

Exaggerated Nazi propaganda accounts of the Dresden bombing were soon discounted, although the linking of British and American Air Forces in the bombing of the city itself remains a common error. However, in 1948, two former German general officers prepared for the Historical Division of the United States Army European Command a distorted version of the Dresden raid which declared the number of dead to be two hundred and fifty thousand. This account may have become the basis for some of the Communist and other propaganda against the Americans, who were blamed for the raid.

Major Raymond Fredette, generally a cautious historian, appears to accept the enormous figure of 135 thousand casualties from a book on the disaster by David Irving. Most German postwar accounts in recent years estimate about 25 thousand dead and 30 thousand injured. This figure is in line with average population and casualty figures for other bombed German cities if it is assumed the crowded city contained a million people, an extra 400 thousand, on the night of the raid.

Reactions to the Dresden raid were doubtless aggravated by the fact that it occurred when the war seemed almost over and after other
large cities had already been raided. In all, there were more than 50 cities raided in this manner, some them—Berlin, Hamburg, Munich, and Essen—several times. The first such raid on each city, if heavy, generally caused the greatest damage and loss of life.

It should be remembered that even the very last raids of the war, such as the last great one against Dresden, occurred during or shortly after the killing of some 5,000 Londoners by unmanned V-1 buzz-bombs and the death of some 3,000 under V-2 rockets that continued to fall indiscriminately until near the end of the war.  

One of the reasons why no greater effort was made to correct the impression, which persisted even among Americans, that the United States Air Force was at least partially responsible for the destruction of Dresden was a natural reluctance to shift the blame to an ally as highly respected as the Royal Air Force. Another was a somewhat forlorn hope that the Russians would be happier and therefore more amenable if they were not publicly linked with an unpopular event such as the Dresden raid. To the extent that exaggerations and distortions serve the purposes of various types of propaganda, some of it well meaning, they are virtually uncorrectable. Yet the fact that many Air Force veterans of the European theater have been confused by the fictions surrounding Dresden is an illustration of how serious is the misunderstanding.

The policy of sticking to precision bombing was a proud one, not only because it was humane but because it was effective. It cost many American lives, especially in the beginning, and at times required a great deal of forbearance and stubbornness as well. Post-war studies have vindicated the wisdom of the policy from the standpoint of
efficiency and postwar attitudes have endorsed it from the standpoint of human relations. All of this means that the sudden abandonment of the policy over Japan requires careful consideration, especially since that abandonment helped to justify the dropping of two atomic bombs on two Japanese cities.

The sixth and last American bomb raid on the railroad yards at Dresden occurred on March 17, five weeks after the famous raid. This last raid was the largest of all—572 bombers—but it caused few casualties and no more controversy than the similar daylight raid of February 15 would have caused had not the British destroyed most of the city before dawn.

The American policy on bombing was thus being continued to the end in Europe, but one week earlier a completely different policy was inaugurated with a vengeance in Japan. In what has been called the greatest man-made disaster in history, 335 B-29s on March 9, 1945 dropped 1700 tons of bombs across Tokyo and created a fire storm which destroyed one-quarter of the city, killed some 125 thousand Japanese, and left one million homeless. This tremendous and dreadful achievement killed four or five times as many civilians as had the notorious Dresden raid one month earlier, yet "the government did not hail the shift as a new policy, there was no outcry in the press, churchmen made no noticeable protest." Robert Batchelder explains that the "American people had become so accustomed to destruction they did not realize that America's cherished doctrine of precision bombing had been abandoned."

Yet the doctrine had not been abandoned in Europe and the minor furor about the bombing of Dresden continued even among the British,
who had been doing that sort of bombing since 1940. There was a vast difference in attitudes toward the Dresden and Tokyo raids, less than a month apart. Pearl Harbor, Japanese mistreatment and execution of prisoners, inability to distinguish between people and government as was done for Germany, and possibly an obscure element of racism all played their part. One senior officer who fought in both theaters remarked casually that the United States Air Force never resorted to systematic city bombing against "civilized people," but he was referring merely to the factors mentioned above. The shift to a new bombing policy against Japan was, for military men, both complicated and difficult. A more emotional attitude toward Japan may have reduced the strain to some extent but this was less apparent with the military than with the civil population.

A panel of engineers, according to General Arnold, decided whether to attack Japan with pilotless aircraft, guided bombs, or B-29s. 63 A conference on this subject in July of 1944, after studying copies of German pilotless aircraft, questioned "whether the U.S. should design a weapon fashioned for attack against large cities as a matter of policy....Without considerable refinement in accuracy and control, the present model will not be a weapon for attack of military targets." 64 It was concluded that with control of the air over Japan, the U.S. could deliver bombs accurately.

Following this reaffirmation of the precision bombing policy, the B-29 became the standard vehicle for the strategic attack against the Japanese Islands. Meanwhile, tests had been made at Eglin Air Base which showed the flammability of model buildings resembling Japanese construction. 65 A Committee of Operations Analysts called attention to
this vulnerability in connection with their analysis of the dispersion of small factories in Japanese urban areas.

The Joint Targets Committee of the Joint Chiefs of Staff, however, rejected all hopes that widespread strategic bombing and naval interdiction might bring victory without an invasion. Plans for mining of harbors and attacks on urban areas were delayed. Bombing against Japan from November 1944 to March 1945 consisted of high altitude precision attacks, principally against aircraft industry targets, which was in line with the pattern followed in Germany.

The results were as disappointing in Japan as they had been originally in Europe. Extremely strong and variable winter winds off the Asian continent, poor cooperation from Russia on weather reports, and high-altitude technical difficulties with the new type aircraft combined to disrupt bombing accuracy. General LeMay believed, along with most airmen, that successful air attacks could render a bloody invasion unnecessary. It became obvious, however, that unless he could make faster progress the costly invasion would surely be launched.

At this point, with the Japanese air force already on the decline, General LeMay gambled that his B-29s could penetrate without their guns and gunners. He also gambled that Japanese low altitude antiaircraft was weak, and brought his planes down from 30 thousand to 9 thousand feet with increased bomb loads and improved accuracy.

General LeMay has received full credit for the masterful shift in strategy involved in the great Tokyo raid, which had at least as much to do with ending the war as did the two atomic bombs. His attack on Tokyo, however, was much more than a change of strategy, it was a
change of policy. General Spaatz has stated that the decision for area bombing in Japan was a decision of the Joint Chiefs of Staff and may have been recommended to them by General Norstad, who was Air Force Operations Officer in the Pentagon. Records of the debate or discussion on this important point have not, so far as is known, been made available.

General LeMay's own expressed views on area bombing are not quite as enthusiastic as might be expected, but he said "in conflicts of this century the civilian mass has become blended with the industrial, the military, the target mass." This point of view was not challenged by anyone in authority at the time, least of all by President Truman and Secretary of War Stimson. These gentlemen, and others responsible, apparently accepted the idea that "mass" targets are all military. Yet they continued to announce that mass targets, down to Hiroshima and Nagasaki, were specifically military, just as though the word used in this manner still had meaning.

General Thomas Power, who was eventually to succeed General LeMay as Strategic Air Commander, has recorded a more personal if equally enigmatic reaction to the first result of the new policy: "True, there is no room for emotion in war. But the destruction I witnessed that night over Tokyo was so overwhelming that it left a tremendous and lasting impression upon me." The change in policy did not mean that the B-29s would concentrate exclusively on cities. Airfields and transport also were attacked, and mines were laid. It was later learned that the first four months of precision attacks, before the new policy, were more effective than had been believed. Destruction at some aircraft plants had led to a
dispersion program for Japanese aircraft plants which reduced production by seventy-five percent.  

The city attacks continued, with crews being pushed to the limit to beat the planned invasion, until industrial production had been cut by one-third, some 250,000 had been killed--approaching the number killed in Germany over a five-year period--and 66 cities had been partially destroyed. As General LeMay put it, the raids were "driving the Japanese back to the stone age." The B-29 campaign was as great a technical achievement as it was a strategic one. The new planes were flying three times the range at one-half the cost of equivalent operations in the European theater. The Strategic Bombing Survey estimated after the war that Japan would probably have had to surrender within three months.

Secretary of War Stimson sought reassurance from General Arnold that the fire bomb raids were necessary, but technology had triumphed. Japanese leaders were already trying to work out a surrender. Yet Secretary Stimson himself, acting upon surprisingly unified advice, would authorize two further blows by a far greater triumph of technology, a bomb whose limitless growth would soon shade all other weapons under its mushroom cloud.
Chapter I--Footnotes


11. This factor has been skillfully analyzed by Major Raymond H. Fredette in The Sky on Fire: The First Battle of Britain, New York, Holt, Rinehart and Winston, 1956.


14. Ibid., p. 800

15. Ibid., p. 799.

17. Walter W. Rostow, *The United States in the World Arena*, New York, Harper and Row, 1960, p. 55. General Spaatz wrote on Jan. 12, 1945 "Major Rostow is one of the few Americans in existence who is intimately familiar with German aircraft production, wastage and order of battle, as well as important economic angles of interior Germany... To withdraw Major Rostow at this time will greatly weaken intelligence essential to the U.S. Strategic Air Force in Europe," Spaatz to Donovan, Spaatz Papers, Library of Congress.


20. Ibid., p. 248.


27. Bruce Hopper to General Muir Fairchild, September 8, 1946, Spaatz Papers, Library of Congress.


32. Alexander de Seversky Lecture, Air University, November 1953, Air University.


34. Lord Tedder, Lecture at Cambridge, forwarded to Spaatz on March 17, 1947, Spaatz Papers, Library of Congress.
35. Viscount Trenchard, Interview with Dr. Bruce Hopper, 28 April 1947, Spaatz Papers, Library of Congress.

36. Carroll Quigley, *Tragedy and Hope*, p. 838. The quotation is from scientist P.M.S. Blackett.


44. Goering interview by Spaatz, 10 May 1947, Spaatz Papers, Library of Congress.


47. Walter Rostow, *The United States in the World Arena*, p. 154. Also, interview of Spaatz by Bruce Hopper, 27 June 1945. Asked about General Doolittle's objection that his surviving crews were near the breaking point, Spaatz replied: "You always have that with commanders, when the orders are from up top and the pressure is too hard."


52. N. F. Parrish, *The Inauguration of Indiscriminate Bombing*, Unpublished, 1965. Wilson wrote personally to protest the German bombing of cities in the early weeks of World War I.


57. Manuscript No. P-50, Historical Division, European Command, Air University.


60. United States Strategic Bombing Survey Overall Report (European War), Washington, 1945, pp. 97, 64, and *Effects on the German War Economy*, p. 13.


Chapter II
Mild Men Create a Monster

The end of the world will be when some enormous boiler shall explode and blow up the globe. And they (the Americans) are great boilermakers.

Jules Verne

Might not a bomb no bigger than an orange be found to possess a secret power to destroy a whole block of buildings--nay, to concentrate the force of a thousand tons of cordite and blast a township at a stroke?"

Winston Churchill, 1925

It will be a hard thing to put this across to the military mind.

Albert Einstein, on requesting the manufacture of atomic bombs

Five months elapsed between the great Tokyo fire raid, which marked a reversal of bombing policy, and the fall of the first atomic bomb on Hiroshima. During this period defense measures, which included partial evacuation, lessened the loss of life in other Japanese cities. Destruction and casualties, however, were generally proportionate to the size of the cities.

In this respect and in others, the area bombing of Japan by Americans followed the pattern of the bombing of Germany by the British--but was compressed from five years to five months. The first
great raid against a German city had destroyed half of Hamburg. Half as many lives were lost as in the fire bombing of much larger Tokyo.
The last great fire raid on Dresden produced casualties comparable to those caused by the final atomic bomb as it exploded over Nagasaki.
By a strange coincidence the air casualties in World War II were strikingly similar in Germany and Japan. In Japan, as in Germany, attacks on just over sixty cities killed about a third of a million people.

The bombing of cities, which originated as a German policy of World War I, continued as British and German policy in World War II, and finally became American policy against Japan to bring about the end of that war in the Pacific. The use of atomic bombs against Japanese cities may be considered the culmination of a long process. Once the process had begun, the evolution of mass bombing and the creation of an ultimate weapon for its climatic employment seemed to occur automatically.

It may have been inconsistent for Secretary of War Stimson to order the use of atomic bombs in August after he had "sternly questioned his Air Force leader" in June on the necessity for fire bombs, but his thinking followed what was for him a rational pattern. General Arnold had replied that, in crowded Japanese cities, the production of war materials could scarcely be stopped without destroying the cities themselves. (Later, General Arnold learned that no more than one-eighth of the destruction caused by city bombing was related to the Japanese war effort.)

Secretary Stimson, following a circular logic, allowed his approval of the "conflagration bombings" to justify his use of the atomic bomb. In thus abandoning all restraint, he was "implicitly
confessing that there could be no significant limits to the horror of modern war." Reluctantly but blindly following this pacifist argument that war is an absolute and unmitigated evil, Stimson could justify his decision to use the bomb. Its use was justified, he said, because "the destruction of Hiroshima and Nagasaki put an end to the Japanese war" and because, among other things, "it stopped the fire raids."\(^4\) This self-justifying conclusion came from a man "who had been championing international law and urging the restraint of war by morality for thirty years."\(^5\) Former Secretary of State Stimson's anti-war principles had been, like those of many Americans of his period, largely a combination of benevolence and legalisms. The rapid advance of technology found him with neither the time nor the understanding to develop a system of ethics useful for the selective and discriminating application of unlimited force. Lacking any rationale for restraint, Stimson simply threw up his hands. War was hell, so let it burn. In this evasion he was not alone, as we shall see.

Strangely enough in the aftermath of Secretary Stimson's recommendation to drop atomic bombs on cities there was rapidly developed a conviction that forces far greater than any he visualized could and would be controlled. Within a year General Arnold himself would counsel preparation for "war without the atomic destruction of cities" because even an aggressor might "withhold some atomic bombing" for various reasons. The General would warn that "who destroys his enemy's cities may expect to see his own destroyed in turn."\(^6\)

The introduction and use of the nuclear weapon caused a sudden reversal of the popular American attitude that maximum destruction in war was inevitable. After the atomic bombs fell "men condemned not
only the atomic raids because of their indiscriminate attack on civilians but they also began to condemn the Tokyo fire raid."7 Thus the attitudes that caused great events were changed by the events themselves.

No one was more disturbed by this sudden turn of attitudes than certain scientists, notably the physicists, who had acted to introduce the atomic bomb. These men bore the burden of the first understanding of the new weapon and its potentially unlimited future.

Most of the theoretical work leading to the atomic bomb was performed during a period when anti-war sentiment was at its height. In the America of the thirties the passion for neutrality at any price was such that law after law was passed which prevented President Roosevelt from selling "munitions" to the peaceful and unprepared countries who needed them most. At the same time, the "un-neutral" actions of denying the oil Mussolini needed for war and withholding from Japan the scrap iron essential for arms were forbidden.

In all the Western Democracies, crusading against militarism and armaments was so popular in academic and intellectual circles that it was almost a badge of liberalism to join the "peace movement." Isolationist Senator Gerald Nye conducted a long investigation of munitions profits that made him a kind of folk hero to this non-fold group, as was Henry Wallace in a similar period following World War II. Despite Nye's "sympathy and relations with would-be American fascists" 8 he managed to stigmatize powder-makers as "merchants of death" so bitterly that a generation afterward the duPont Company objected to a former official becoming chairman of the government's Munitions Board. "It is clear," said Bernard Brodie, "that there
existed in the thirties a deeper revulsion against war than in any other era in history.\textsuperscript{9}

It was in this peace-conscious environment that a few scientists in sedate universities worked with hands unsoiled by gain or profit toward the creation of the greatest of all munitions. So stupendous was the potential of the atomic bomb that it frightened everyone who knew of it, including, first of all, the scientists themselves. "From timid pedagogue to eloquent Jeremiah--all in the space of a few short years" said one physicist of his colleagues. Some who "never bothered to vote" before Hiroshima, and were ill at ease before seminar students, suddenly found themselves addressing large audiences on the fate of the world. "Physicists were automatically called 'obscure' in popular publications. Now the adjective, even for the most obscure of us, is 'prominent'."\textsuperscript{10}

Physicist Samuel Goudsmit's further remark that "we physicists are among the maladjusted veterans of the Second World War"\textsuperscript{11} may have been more profound than he knew. Military leaders suffered a notoriety explosion similar to that of leaders in war-related science.

After World War I the victory over Germany had been interpreted in America as a citizen army's victory over militarism and "seemed to confirm the utter superiority of the American principle of unpreparedness." This interpretation would not stand historical analysis, but "leading American military men, like Generals Pershing and Bliss, endorsed fully the idea of disarmament."\textsuperscript{12} The result of this and other factors was "a losing battle for officers, men, support for military study and research, for material and for public interest." Late in 1940, with the war in Europe already a year old, the United
States had fifty-five thousand men in its army and one hundred eighty-nine planes ready for action in its air force. Scientists and military men worked frantically to redress the error and to keep the casualty lists down. This time there was no turning back. Twenty years after World War II, in contrast to the piddling force of 1940, the United States was estimated by one informed authority to possess no less than fifty thousand nuclear warheads.

Until the beginning of World War II the atomic bomb was slowly being created with academic unconcern about its possible consequence. The democracies lagged behind the dictatorships in preparation for war, including the application of science to warfare. For this reason, the democracies had to go all-out in their efforts and gamble on every new research possibility. In the midst of World War II General Arnold wrote to his principal scientific advisor, Dr. Theodore Von Karman:

Our prewar research and development has often been inferior to our enemies....It is a fundamental principle of American democracy that personnel casualties are distasteful. We will continue to fight mechanical rather than manpower wars. Are manless...precision military rockets...a possibility?...Is atomic propulsion a thought?!

The atomic bomb was not the only unusual weapon that was suggested to redress the military lag of the democracies without paying the cost in casualties. General George Marshall, who was Secretary of State in 1947, told David Lilienthal, Chairman of the Atomic Energy Commission that after the terrible losses at Iwo Jima he was prepared to use gas at Okinawa. With no mention of the international covenants about gas, Marshall said softly, "we were all ready to use it on some of the islands" and he described the technique in detail. The reason it was not used, Marshall explained, "was chiefly the strong opposition
of Churchill and the British." They were afraid of its use by the Germans against England.\textsuperscript{16}

Marshall was convinced that forcing Japanese troops on Okinawa to wear clumsy gas masks would save lives all around and, of course, he may have been right, but reducing American casualties was his over-riding concern.

This intensified impulse to avoid further personnel losses lay behind the fire bombs and the atomic bombs alike. As historian Trumbull Higgins bluntly states: "...during the Second World War, in the name of sparing military casualties, the Western Allies had led the parade into the ever more facile slaughter of civilians."\textsuperscript{17} (Unprecedented concentration on firepower to save manpower would consistently dominate American policy through the Korean War and into Vietnam, where "aircraft and artillery are called in to do the job that infantrymen did in other wars." This would lead as always in the past to complaints against "this relentless firepower that has scarred the countryside, obliterated hamlets and...fifty percent of some major Vietnamese cities."\textsuperscript{18})

Rapid demobilization and wholesale disarmament in peace, then hurried, desperate mobilization leading to unstudied, strategically unplanned and often unnecessary destruction when war came--this was the American pattern for eighty years before the atomic bomb was dropped. World War II saw the first deep involvement of scientists in the process.

Before American entry into the war, shortages of funds and a strong taboo against any kind of centralized coordination in American weapons development had prevented the kind of cooperation between
commanders and scientists that saved Britain in her most desperate hour. Just two years before World War II a study prepared for the United States government on important new inventions failed to mention either atomic energy or radar, despite the fact that these projects were well under way in England.

It was 1940 before news of the success of "Operations Research" in Britain was brought to the United States by Harvard President James B. Conant. This system of formal cooperation between commander and scientist was finally introduced to the Joint Chiefs of Staff by "stuffy old" Vannevar Bush in 1942. The trick of applying "numerical thinking" to military operations had been introduced by British physicist P.M.S. Blackett to "help avoid running the war on gusts of emotion." Also in 1940, Sir James Tizard arrived with reports of radar, a powerful new explosive (RDX), and studies on the gaseous diffusion of uranium isotopes for an atom bomb. At this time, Britain had done more in atomic research than had the United States.

These penetrations of the field of military technology by civilian scientists began the development, for the first time in the United States, of comprehensive planning at various levels with the aid of natural science, economics, political science, and psychology, without which "no comprehensive strategy can be developed." The new partnership was further developed by the Air Force when long range attacks against enemy supply and production systems required civilian experts in these fields to aid in target selection.

The British led in the transfer of military-scientific collaboration to the United States and brought several military-scientific innovations, but leadership in atomic development was assumed by
scientists of continental Europe. It is significant that Einstein's letter to President Roosevelt urging him to advance research toward an atomic bomb was dictated in German.24

Einstein, an avowed pacifist, was following the suggestion of an outstanding group of refugees from Hungary, Leo Szilard, Eugene Wigner and Edward Teller. The first report on uranium fission had been published in Germany in 1939 after experiments inspired by Italian Enrico Fermi were successful there. This report caused a group of nuclear scientists who were refugees from Hitler to proceed, by stages, to the United States. The group of refugees brought with them more knowledge of nuclear fission than was possessed anywhere else. The only "American" among the six who produced the Einstein letter to the President was Alexander Sachs, a Russian-born economist.

Earlier in 1939, Fermi had approached United States Navy officials in Washington on the possibilities of uranium as an explosive, but found the Navy was not interested.26 (Eight years later David Lilienthal wrote in his journal "to have spent the day with Fermi is like saying that one spent the day with Copernicus of Galileo or the primitive who discovered fire."27) The outbreak of World War II in the fall of 1939 dropped a curtain of secrecy over all such research, but vigorously anti-Hitler refugee scientist Leo Szilard later claimed "I invented secrecy." He had proposed to British and French scientists that they keep fission experiments secret. Pro-Communist French Scientist Joliot-Curie at first refused, but Szilard knew "Joliot would have to fall in line; if he didn't we would know his results and he would not know ours."28 Joliot-Curie was soon captured by the Germans and Szilard, a key figure in the making of the bomb, became
after the German surrender a bitter opponent of secrecy in the United States. Szilard believed that progress in Germany was slowed because the scientists there were not enthusiastic about making the bomb for Hitler.

Enthusiasm for atomic research by the anti-Hitler refugee scientists in America eventually got results, but not before their committee had been forced to listen to a lecture by an Army lieutenant colonel on how wars are won by men and morale rather than by weapons. After a year of further stalling by military and other agencies the refugees, now aided by American scientists, received on the day before Pearl Harbor the approval of their project by the Top Policy Group which included Vice President Henry Wallace. Although Szilard complained that a year had been lost in red tape, the temperamental scientist later said all the big discoveries were made before the Manhattan Project was organized: "If you organize too early you have to go to so many meetings you have no time to produce an idea."

The famous Manhattan Project, so often referred to by postwar orators as a model for everything from undersea research to slum clearance, was significant for more reasons than the production of the bomb. Its total cost, more than two billion dollars, was considered enormous at the time, but it has been matched in each year since the outbreak of the Korean War by the amount the United States government spends on research. Ever since the organization of the Manhattan Project, the United States government has been the principal patron of the sciences.

One of the American scientists who worked on the bomb before Pearl Harbor described his feelings on entering the project as typical
of scientists at the time: "The Battle of Britain was just over, but things were still at a very low point. If one could make the bomb, that would be the salvation of the world, not the damnation of it." American scientist Arthur Compton directed a team of scientists, with Fermi doing the work, to build a graphite-uranium "pile" under the unused football stands of the University of Chicago, and produced the first controlled nuclear reaction just a year after Pearl Harbor. This experiment would never have generated enough plutonium for a bomb, but it proved the physicists' calculations were correct.

The team at Chicago was already showing what came to be regarded by others as "scientific temperament." Some of its members, who had learned their physics from distinguished researchers still in Germany, were convinced that Hitler would soon have the bomb. They became so jittery about the imaginary ability of the Germans to build a bomb and drop it on Chicago that they moved their families out of the city. Equally amusing, in retrospect, was the occasion when the scientists, after examining in a small receptacle their total supply of uranium dust, retired to another room. A janitor soon dumped the dirt down the drain, where it was eventually recovered with the aid of plumbers and radiation detectors.

The Chicago experiment was enlightening, but decisive progress in the design and manufacture of the bomb was made at Los Alamos, Oak Ridge, and Hanford. The whole project would have been long delayed by a shortage of uranium, of which less than an ounce had ever been made in the United States, except for one of those unpredictable "accidents" in which one man displays an unprecedented amount of foresight.
Edgar Sengier, head of Union Minière in Katanga, learned from Joliot-Curie about experiments in the chain-fission of uranium. This byproduct of the refining of other minerals was used for coloring ceramics, but Sengier happened to have a thousand tons of uranium ore, 65 percent pure as compared with .2 percent in North America. Sengier managed to ship it from Brussels to New York just before the Germans captured Belgium. He could get no one in the United States interested in this uranium and left it in a New York warehouse until 1942 when Colonel K. D. Nichols of the Manhattan Project visited him to request the opening of the flooded African mines. Segnier said "You have a mine here in New York." The atomic project was advanced by many months. Sengier's Congo mines later became so invaluable to the atomic bomb project that David Lilienthal said because of him "many of the peoples of Europe can live without constant dread of being overrun."37

While the separation of uranium isotopes was going on at Oak Ridge and Hanford in monster machines designed by Eugene Wigner, the design of the bomb itself, and its triggering mechanism, was being worked out at Los Alamos where Robert Oppenheimer was placed in charge. This amazingly articulate "pure genius"38 coordinated the work of the world's greatest collection of working scientists, including nearly a dozen winners of the Nobel prize.39 As a man, Oppenheimer was something of an enigma and his erratic influence on nuclear policy for years to come would make him one of the most controversial Americans of all time. Lilienthal, who admired Oppenheimer's brilliance, saw him first when he was "making funny 'hugh' sounds between sentences or phrases as he paced the room,
looking at the floor—a mannerism quite strange. Very articulate...I left liking him, greatly impressed with his flash of a mind, but rather disturbed by the flow of words." In a later description Oppenheimer's close friend Joseph Alsop said he "smokes cigarettes in chain fashion and speaks with nervous brilliance." Truman called him the one individual "most to be credited with the achievement of the completed bomb," and Alsop said he "is accorded such respect by the whole tribe of physicists that many of the younger men copy his mannerisms and his turn of phrase." The first serious crisis over policy at Los Alamos and elsewhere in the Manhattan Project came with the surrender of Germany. Since most of the refugee scientists who had pioneered in the project were inspired to a considerable degree by hatred and fear of Hitler and his works they lost much of their enthusiasm for the project when he disappeared. General Leslie Groves, the bluff but effective soldier who had administered the Manhattan Project, later complained: "One group that objected to the use of the bomb did not object until after V-E Day. That group was mostly centered around people who were bitterly anti-Germany and who did not appear to feel the same way toward Japan." Robert Batchelder argues that the avowed purpose of the scientist's work on the project "was precisely to prevent the use of the bomb" but this oversimplification of motives is partially contradicted by his own quote from Dr. Goudsmit: "Isn't it wonderful that the Germans have no atom bomb? Now we won't have to use ours." A majority of the scientists on the project later advocated use of the bomb, but the fact remains that many were appalled at its possibilities. The highly
respected Danish scientist, Niels Bohr, wrote to Franklin Roosevelt, after a meeting with him in 1944, to advocate "mutual agreement and true confidence" between nations that would avoid the "terrifying prospect" of future competition "for a weapon of such formidable character." Bohr wanted to go to Russia to see Kapitza and other Russian nuclear scientists of his acquaintance in an effort to persuade the rulers of Russia to make it "an open country" in return for shared knowledge of the bomb. This idea now seems extremely naive, and so Churchill thought at the time. Although Roosevelt appeared to sympathize with Bohr, nothing was ever tried in connection with his idea.

The construction of the bomb continued without interruption after V-E Day and the imminence of the planned invasion of Japan caused even greater pressure for speed. Admiral William D. Leahy, Chief of Staff to the President, continued to think in May of 1945 that "claims made by the scientists are at least extravagant" and in June he found himself less impressed with "Dr. Bush's super explosive" than was Secretary of State Byrnes. Meanwhile, the work on the bomb proceeded from crisis to crisis in the utmost secrecy. The costly and delaying secrecy was futile. The only true "secrets" were technical ones concerning isotope separation methods, the size of a "critical mass" of uranium and plutonium which would support a chain reaction, and the trigger mechanisms for the bombs. These discoveries were reported to the Russians by British scientist Klaus Fuchs and others as fast as they occurred.

Neither the Germans nor the Russians were convinced the American project could succeed. Their own nuclear scientists, who had
progressed as far as any in 1940, were not sufficiently lacking in
vanity to believe that others might be making much more rapid progress.

Stalin, who doubtless knew at least as much as President Truman
about the project, surprised the President by showing little curiosity
about the first atomic explosion when told of it at Potsdam. A
message coded in medical terms and ending "Dr. Groves pleased,"
reached President Truman following the successful test near Alamogordo
in the New Mexico desert. That explosion was suddenly the most dra-
matic of all the technological triumphs of history and by all odds the
most ominous. The scientists who witnessed it were awestruck. One
said "the strong, sustained, awesome roar" following the blinding
flash "warned of doomsday" and made them feel "blasphemous to tamper
with the forces heretofore reserved for the Almighty." General
Groves had planned for a yield of ten kilotons, although many
scientists, including Oppenheimer, expected less. The power of the
small percentage of uranium that actually fissioned reached the equiva-
 lent of 19 thousand tons of high explosive.

One scientist, who continued to work on nuclear weapons for many
years after the first explosion at Trinity site, confessed: "I guess
there wasn't one of us who came back from Alamogordo without asking
himself, 'My God, what have I done?'" (This phrase was also used
by some of the airmen who participated in the bomb drops just eight
weeks after Trinity.)

Carroll Quigley, who has written in Tragedy and Hope what is per-
haps the best brief account of these events, concludes that: "The
particular stalemate of nuclear terror in which the world now lives
derives from the two decisions made in 1945 to continue the project
after the defeat of Germany and to use the bomb on Japan." Air Force Commander H. H. Arnold, though neither scientist nor historian, often seemed to possess the comprehension of both. Six months before the first atomic explosion and more than ten years before the first long range missiles, he made one of his characteristic secret talks to his staff. His apocalyptic view matched the nightmares of the most disturbed scientists as he "drew a picture of the next war as starting without warning with thousands of pilotless 'things' suddenly raining destruction over Washington and other prime targets in the United States." As a defense against this, he visualized other "things," not only seeking out the enemy's weapons, but also counter-offensive weapons which would find and destroy the enemy's ability to manufacture articles for waging war.
Chapter II--Footnotes


20. Carroll Quigley, Tragedy and Hope, p. 842.


22. Urs Schwarz, American Strategy, p. 139.


33. Dr. Samuel Goudsmit, quoted by Daniel Lang in From Hiroshima to the Moon, p. 223.

34. Related to the author in 1964 by members of the wartime athletic staff at the University of Chicago.

35. Carroll Quigley, Tragedy and Hope, p. 854.

36. Ibid., p. 852.


38. Ibid., p. 186.


43. Batchelder, *The Irreversible Decision*, pp. 27, 43.

44. *Hiroshima* Plus 20, p. 121.


52. Daniel Iang, *From Hiroshima to the Moon*, p. 353.


Chapter III

Military Dogma Prolongs the War

Turn earth: turn darkly!- Turn through the blood and battle...

Turn with acceleration....Turn with the secret of power:-

The unopened atom:- The fire of the suns forgotten....

John Williams Andrews
Prelude to Icaros, 1936

Japan may have been defeated by bombing, by mining, by submarines, by ground attack against her armies on distant islands, or by all of these. The various methods of warfare competed and in some ways interfered with each other. Invasion across the beaches, more costly than all other attacks combined, was long planned but never necessary. Yet it was almost carried out because it represented one doctrine in one theory of war.

Three major questions regarding the defeat of Japan relate to the use of atomic bombs there and to postwar policies and events in America which were influenced by the way the bombs were used:

What was the influence of Russia on American strategy?

Why was there no serious effort to arrange acceptable surrender terms before the bombs were dropped?

Why did preparation for invasion proceed at full speed when Japan was beaten and seeking terms?

Time has obscured the memory of the problems that existed between Russians and Americans throughout the war. American military men, who admired the Russians as allies, made every effort to help them despite continuous obstruction. General LeMay complained that when
some of his B-29s had to land in Russian territory "the crews were treated more like prisoners than allies." The men were kept in jails and the B-29s were completely cannibalized. It was impossible even to learn what had happened to the crews until they were released, sometimes a year later. General LeMay complained of "the implacable, infuriating silence of those Soviets," while he got along famously with Mao Tse-tung, who cooperated completely and offered both presents and friendship.\footnote{1}

Early in the war one of General Doolittle's crews landed near Vladivostok because of a leaky gas tank, and was interned for years by the Russians.\footnote{2} While they siezed and appropriated American planes landing in their country, the Soviets made a great deal of trouble over accepting the lend-lease planes delivered to them, often refusing to accept the planes if there was the slightest defect.\footnote{3} Major General Elmer E. Adler, who was trying to deliver lend-lease supplies at the head of the gulf of Persia early in the war, found the Russian military men "were always accompanied by their political commissars, who raised objections to everything we attempted to do."\footnote{4} General Adler also wasted a great deal of time trying to negotiate with the Russians for a British-American force in the Caucasus to help on the eastern front in 1942. Stalin had agreed with Churchill on this, but the negotiators spent weeks in Moscow attending ballet or opera while the Russians stalled. They showed no intention of carrying out the agreement which was designed to help them.\footnote{5}

Historian Robert Frank Futrell reports that "when the War Department began its planning for a postwar defense establishment in 1943, no one identified a likely adversary for the United States. The fact that
the Soviet Union would become an enemy of the free world apparently became known to different leaders at different moments." For General Spaatz the moment came when reports from his people who were building bases at Poltava for shuttle-bombing missions showed "the Russians were going to be very difficult people to get along with." 7

During the war the American Military Mission in Moscow was headed by modest and conscientious Major General John R. Deane, who found the Russian people to be much like Americans. He advocated a "firm but friendly attitude" despite Soviet policy "aimed aggressively at domination of all her neighboring countries." 8 Deane's book, The Strange Alliance, reported Soviet intransigence in obstructing lend-lease aid. Deane was especially critical of Roosevelt's self-confidence in dealing with Stalin. Roosevelt's failure with the Marshal was explained by Deane, who saw it happen: "In this case the charmer was himself charmed." 9 (Joseph Lash's notes on Roosevelt are similar: "He got along better with Stalin and thought Stalin like him. Mrs. Roosevelt asked him how did he know? He had a hunch, the President replied." 10)

General Nathan Twining, Commander of the Mediterranean Strategic Air Forces in World War II had "trouble with the Russians all the way through" while his relations with British, French and Greeks were fine. "I don't think Washington ever believed some of the things they (Russians) did to us....I had several airplanes shot down by the Russians, and things like that....They were just hard to reason with....Unpleasant." 11

One of the most scholarly air leaders of World War II, General Mair Fairchild, learned in 1943 the importance of Russia in American policy. As a member of the Joint Strategic Survey Committee
in Washington he "made the unpopular suggestion that Lend-Lease to Russia be immediately halted. He was fired from his job because of these views." Lend-lease gifts to Russia were truly stupendous. It was not generally known that they included a small navy of 185 destroyers, 156 sub chasers, 28 frigates, 1 cruiser, 75 mine sweepers, 3 ice breakers, 36 liberty ships, 56 other merchant ships, 9 tankers and many small seagoing craft. The Russians refused to return these ships and other items of American aid after the war.

Air Force Chief General H. H. Arnold also tried to influence policy toward Russia. He pointed out to Ambassador Harriman in September of 1944 that the Air Force had pursued a "policy of generosity" by providing all types of aid "over and above Protocol commitments." Since this policy had not worked, Arnold proposed "a stiffer policy toward our Soviet friends." He thought that since the Soviets were "tough realists" they might be more impressed "if we adopt a policy matching their own." At the same time, Arnold reminded Harry Hopkins that the Russians had refused to allow American transport planes over Russia and had forced the evacuation of American shuttle bombing bases that had been used to help them in the war against Hitler. Seven months before Hiroshima, Arnold suggested to a fellow officer that the Soviets might modify their attitude "due to our success in Europe and the recent bombings of Tokyo. They are realistic accomplishments and would appeal definitely to their line of thought." 

It was not until May of 1945 that General Hoyt Vandenberg, who had already visited Moscow, had a feeling of foreboding about Russia. He and General Bradley went forward to meet Marshall Zhukov and found
the Soviet army was digging in, opposite the Americans. Zhukov displayed aircraft with features American designers had called impossible. Vandenberg, observing the hostility and the achievements, talked to General Bradley about his concern over the feeling in America that the Russians had "masses of manpower and no brains." 17

The leather-faced Stalin, who had out-charmed Roosevelt, had brains enough to be quite candid. When Air Marshal Tedder visited him in January 1945 to offer RAF help (including the bombing of Dresden, Chapter II) for the Red invasion of Germany, Stalin said: "We have no treaty but we are comrades. It is also sound selfish policy that we should help each other in times of difficulty." Tedder was grateful for the reception. Stalin said "I am embarrassed by your gratitude." 18

When the surrender of Germany was achieved on schedule, Stalin, for reasons of his own, refused to agree that it should be announced. President Truman had to go ahead and make the announcement despite the Marshal's continued objections. 19

Stalin's great triumph had already occurred at the famous Yalta Conference, where various concessions were made to him to insure the entrance of his massive army into the Pacific war. The desire for this intervention was a near-obsession with General Marshall because it would help with another obsession--the invasion of Japan by the United States Army. Despite the very persuasive work of General John R. Deane in Moscow to show that Russian help would be of little value, Marshall continued until late April to push for concessions to gain that help. In May the Joint Chiefs of Staff finally agreed that Russian entry was no longer necessary "to make the invasion feasible." 20
Marshall, however, managed to get this position reversed at Potsdam, against the advice of the King and Arnold, and steps were taken to pressure China into accepting the Yalta concessions. The Yalta concessions to Russia had disturbed Air Force leaders most, since it was already obvious to them that the B-29s could rapidly reduce Japan's economy to helplessness.

General Spaatz's political advisor, a Harvard professor of Political Science, summed up the Air Force failure at Yalta in a postwar memorandum. Bruce Hopper recognized the importance of General Eisenhower's famous diversion toward a mythical German "redoubt" in Bavaria, which permitted the Russians to advance deeper into Central Europe. Dr. Bruce Hopper said: "The Air Force knew that the redoubt was a desperate red herring...but the statesmen at Yalta believed in surface forces....They made policy on surface force information. One could make a theme on this. Discount of the Air Force was responsible for giving away blue chips to Russia, from the Elbe to Port Arthur."22

Failure of the Air Force to make it clear at Yalta that Marshall's invasion of Japan would not be necessary has often been blamed on General Arnold's illness at the time. Columnist Iyle Wilson charged that Marshall, and Admirals Leahy and King simply "brushed off" Larry Kuter, the bright but young Air Force General, who was Arnold's representative at the Crimea city. General Spaatz sent his most persuasive Air Commander, General Fred Anderson, with a report from General LeMay that Japan was doomed under the B-29s, but it was kept from the sick President. Harry Hopkins agreed with Anderson but he also became ill. "Hap Arnold would have busted down somebody's door" said Wilson.23
General Kuter's own interpretation of the Yalta failure was slightly different. He felt that air achievements in Japan at the time of the Conference, February 1945, were not yet impressive, though they were predictable. It was true that Marshall personally excluded him from one meeting with the President at which the other services were represented. At a later meeting, Marshall insisted on answering questions the President directed to Kuter, seizing the papers Kuter had before him. When Marshall finally allowed Kuter to present his views, he made comments to the President upon all of them. Marshall, who was later to become Secretary of State, sneered at Kuter's report of the B-29 attacks to date. He said the report was so imprecise it "sounded like the State Department." Kuter's only support came from British airmen, who agreed (privately) that Marshall's insistence the Luftwaffe would copy Japanese kamikaze tactics was "asinine."  

Whether it was Roosevelt's "memory failing" and "repeating himself" as Baruch said, or his desire to establish "a sort of dyarchy with Stalin" as Sir Gladwyn Jebb saw it, he was prepared to pay the Russians "an extraordinary price...largely at the expense of China--in return for their coming into a war that was already won." Jebb's comment is supported by Byrnes' revelation that Roosevelt did not even read the State Department's briefing for him before he met with Stalin at Yalta.  

Unfortunately, for the Potsdam Conference in Berlin five months later, Byrnes himself, as Secretary of State, had not been briefed on the situation in Japan. Secretary of the Navy Forrestal had opposed inviting the Russians into the war against Japan. Forrestal believed, with most of the Navy, that Japan was already beaten by the Naval
blockade. He was not invited to Potsdam, but attended anyway, bringing with him radio intercepts of Japanese efforts to get the Russians to arrange a surrender—efforts Stalin had carefully avoided revealing at the time. Forrestal was too late, since a severe ultimatum to Japan had already been dispatched. The ultimatum originally contained a new concession indicating that the Emperor might be retained. This statement was mysteriously deleted. Lewis Strauss, who was Forrestal's assistant, says this omission "was indeed the ultimate decision which precipitated the use of the bomb." 

Military leaders, the Joint Chiefs of Staff, and Secretaries Stimson and Forrestal had all wanted to keep the Emperor as an aid to enforcing the surrender. Later events proved this to be wise. Failure to include the possibility in earlier peace terms offered Japan was due to the doctrinaire political ideology of such men as Secretary of State Cordell Hull and it may have delayed the coming of peace. Another possible influence for delay was the controversial "unconditional surrender" formula which also resulted from political partisanship. Robert Sherwood in *Roosevelt and Hopkins* explains that the "unconditional" shibboleth derived from an uproar at Casablanca over deals which the Allies had made with French-Nazi collaborators Darlan and Peyrouton, and "liberal fears" that this might indicate a willingness to make similar deals with Goering in Germany and Matsuoka in Japan.

Whatever may have been the influence of political doctrines in delaying the arrangement of terms of surrender until the atomic bombs were dropped, it appears that military dogma played a much greater role in the delay. Walter Rostow saw no effort by high officials of the
Army and Navy to understand that the B-29s were on the verge of disintegrating the Japanese economy and military structure. Stimson and Grew, he felt, were outstanding in their recognition that a national interest existed as against "the parochial interests of the military in maintaining a situation where the defeat of the enemy in the field was the overriding criteria for all decisions."

Admiral Leahy records that Admiral King joined General Marshall in urging President Truman as early as June to approve the planning for an immediate invasion of the southernmost Japanese home island, Kyushu. At that time, Marshall was estimating 69,000 casualties out of 190,000 troops for the invasion. Leahy wrote, with an almost audible sigh, that the Army seemed "determined to occupy."

Even General Arnold, who believed that bombing would soon make Japan's surrender inevitable, went along with the invasion plan because it would provide closer air bases. After all, Marshall had gone along with Arnold's bombing, despite his belief that it was indecisive. To an experienced Pentagon staff officer, compromises of this kind between service faiths and practices are recognizable from a distance. With the Joint Chiefs of Staff, compromise is a way of life. (General Vandenberg, shortly after becoming Chief of Staff of the Air Force, complained to an aide: "Fifty percent of the decisions I make are what I believe best, but the other fifty percent I am forced to make in order to reach a necessary agreement with the Army and Navy." Admiral Richard Connolly explains that Marshall went along with Admiral King on fighting a naval war in the Pacific until after the surrender of Germany, then the Army "wanted it fought in massive fashion."
As early as April of 1945 the Joint Staff Planners reported that a mere clarification of the surrender terms for Japan might achieve a surrender, but the War Department's Operations Division would accept none of this. They continued to insist that--despite the bombing, the blockade, and the proposed Russian entry--a landing, or at least threat of landing would be required. Marshall would not settle for a mere threat, and he reported to the President in mid-June that an actual landing would be necessary.\(^{37}\) Admiral Leahy has emphasized that the invasion was never actually approved by the President even though massive preparations were under way to "aim for the Tokyo plain."\(^{38}\) Leahy also emphasized that Marshall had the "conservative Army view" which examined every assistance for invasion.\(^{39}\) (Marshall was so convinced that invasion was the necessary end of all military action that he once testified "the only sure defense against aerial bombardment is conquest of the enemy's territory."\(^{40}\))

At the time of the Yalta Conference Marshall had planned to use atomic bombs in conjunction with an invasion--two to support each attack and one against the Japanese reserve units at each invasion site.\(^{41}\) Apparently, he never did understand, not even after the war, how few bombs there were in 1945.\(^{42}\) Others made the same mistake, but only from lack of information. Admiral Connolly heard only intimations of the bomb until Hiroshima. When he got the news he prepared an immediate dispatch to Washington asking for "six of those things." He requested them for the invasion to support amphibious landings by attacking headlands which dominated the approaches.\(^{43}\)

The Navy was almost as deeply involved in carrying out the proposed invasion as the Army, but despite Admiral King's agreement with
Marshall, Navy leaders saw little necessity for it. Admiral Connolly was confident Japan would surrender without an invasion. Admiral Nimitz considered that neither atomic bombing nor invasion was necessary to produce a surrender.  

The United States Navy knew the Japanese at home were beginning to starve. Why, said Admiral John Ballentine, did not United States intelligence know it? Ballentine had the task of trying to find enough ships, American and Japanese, to bring in emergency food supplies after the occupation, and the job was barely done in time to prevent mass starvation, even with full American help. Japan needed ten million tons of shipping to stay alive. By late 1944 nine million tons had been destroyed. Admiral Wiley calculated that "Japan had long since passed her point of no return. But we seemed not to know it." Admiral Ballentine insists the Navy knew it. Who, then, refused despite all evidence to recognize that invasion was unnecessary?

"Official Army doctrine has been (and still is) that a nation has not been really defeated until the lowly infantryman has trod upon its soil and holds it with his presence," explains Robert Batchelder. He points out that the official Army history refers to the Potsdam Declaration which, it was hoped, might bring about a surrender, as merely "a calculated effort to lower Japanese will to resist while military pressures were building up." True "military" pressures, for the Army, meant invasion moves, and they were being rushed. In Australia the divisions selected for the first suicidal assaults were being reorganized to replace, insofar as possible, all soldiers with dependents.
During July of 1945, the last month of the war, General Nathan Twining was Commander of the 20th Air Force in the Marianas. He had studied the situation in the Japanese Empire: "They had no ships... they couldn't have lasted long." Twining had a book of large scale pictures showing how completely Japanese cities were destroyed. "There was nothing, no industries, zero." In an effort to hold off the invasion he showed the pictures to Army friends and tried to convince several of the officers coming through--the invasion force--they thought we were nuts....They said 'Ah, you Air Force people are crazy-- these are good friends of mine--they were going to make that invasion...."49

In the face of the Army's grim preparations for invasion, the Air Force Commander prepared for an immediate Japanese surrender. On August 3, a week before Hiroshima, General Arnold issued an order for a number of four-engine transports to be made available by August 15 "to materially increase buildup of forces...between surrender date and occupation by our forces."50 The surrender date was precisely predicted before the first atomic bomb was dropped.

The Japanese people, as well as the government, wanted to give up. The Air Force Tactical Commander for General MacArthur, General Ennis Whitehead, wrote to General Chennault that his formations had been ranging at low altitude over Honshu, the main Japanese island, for three weeks, beginning in mid-July. The people were "waving white flags from ditches and trenches in the fields."51

An intelligence officer from the Pacific Theater later wrote to General Whitehead that he pleaded with General Willoughby, the intelligence officer on MacArthur's staff, to forward intelligence
information which predicted "that Japan would fold on or before August 15... Willoughby wouldn't even send the dope to Washington. I pleaded with him to do it and he told me I was a silly optimist." General Whitehead wrote that Marshall had always favored "toe-to-toe" land operations. Army General Bonner Fellers of MacArthur's staff wrote: "The fact that sea and air power could drive Japan to her knees did not seem to impress General of the Army Marshall. His whole concept was that war can be won only by ground forces, supported by the Air Force and the Navy."  

Until as late as June 18, planning by the Joint Chiefs of Staff had been conducted entirely apart from all discussions of the atomic bomb. At the first meeting with the President, the Secretaries and the Chiefs, when both subjects were discussed, Assistant Secretary of War McCloy thought the plan of invasion was fantastic, but he thought the bomb would keep it from being carried out. Dr. Oppenheimer, an enthusiast for dropping the bomb, said later "in the back of our minds was the notion that the invasions were inevitable because we had been told that."  

When the Interim Committee to consider employment of the atomic bomb met with its staff of nuclear scientists no Air Force or Navy officers were present. There was no one to point out that neither King, Arnold nor Leahy believed an invasion necessary, bomb or no bomb, and that the Air Force and Navy Chiefs had agreed only to planning for the invasion, not to its implementation. The only military leaders to appear before the interim committee were Army General Leslie Groves, of the Manhattan Project, and General Marshall. Marshall apparently did not want the committee confused by the majority military view.
In addition to hopes for the bomb there was the hope that Russian entry might bring an end to the war before the invasion could begin. In late June, Byrnes and Truman were confident the Russians would move on August 15. Some around the President agreed with Secretary of the Navy Forrestal that Russian entry would not be worth the ultimate price in terms of increased Russian influence over China. Others favored the move and apparently hoped Russian cooperation would make them more friendly. The State Department's top expert on Russia, Charles Bohlen, wrote that the United States could not "afford to hold out any clarification of terms to Japan which could be construed as a desire to get the Japanese war over with before Russia has an opportunity to enter." Yet it was not the waiting for the Russian invasion of Manchuria that prolonged the war, but waiting for the American invasion of Kyushu--waiting by the Japanese.

Air Force General Carl Spaatz, whose attitude toward Army leaders was always conciliatory, conceded that for Japan as for Germany, an invasion might have been necessary to bring about a prompt surrender. Yet General Spaatz’s reasoning was unusual, and gave no comfort to the advocates of the invasion: "Had the Japanese been told that we would continue bombing until they surrendered, but would not invade...they would have surrendered." They were prepared, said General Spaatz, to make the invasion "very, very costly" and our losses "very, very heavy," so they wouldn’t surrender as long as they knew we were planning the invasion." Military analyst Hanson Baldwin agrees that Premier Suzuki and the Emperor could not make peace because Japanese military leaders "argued that huge losses inflicted on the enemy during the invasion would force peace on terms Japan could live with."
Robert Butler's thorough study of the surrender reports that War Minister Anami and his two service chiefs no longer promised victory after the first atomic bomb. Yet even after the second bomb they urged fighting on. Their reason for continuing the war remained the same—that Japan's Army could inflict "extremely heavy damage upon the enemy" as it tried to cross the beaches of Kyushu.
Chapter III--Footnotes


4. Ibid.

5. Ibid.


8. General Deane to General Eisenhower, September 1946, Patterson Papers.

9. General Deane's answer to question by the author, Air University, 1947, Author's notes.


13. Colonel H. F. Cunningham, Intelligence Officer to General Ennis Whitehead, January 6, 1946, Whitehead Papers.


18. Air Marshal Tedder, Memorandum on Meeting of January 5, 1945, Spaatz Papers.

19. Leahy Diary, April 12, 1945.


22. Bruce Hopper to General Spaatz, March 6, 1946, Spaatz Papers.


29. Ibid., p. 196.


33. Leahy Diary, June 18, 1945.


35. General Hoyt Vandenberg, statement to the author, 1949, Author's notes.


38. Ibid., p. 111.


44. Ibid.


51. General Ennis C. Whitehead Papers, Unpublished, Air University.

52. General Whitehead from Colonel Cunningham, Oct. 9, 1950, Whitehead Papers.


Chapter IV

A Fumbling Decision to Atomize Cities

Such was the crowning triumph of military science, the ultimate explosive, that was to give the "decisive touch" to war....

A recent historical writer has described the world of that time as one that "believed in established words and was invincibly blind to the obvious in things." Certainly it seems now that nothing could have been more obvious to the people of the early twentieth century than the rapidity with which war was becoming impossible. And as certainly they did not see it. They did not see it until the atomic bombs burst in their fumbling hands.

H. G. Wells, 1914

(The passage is from a novel, The World Set Free, published just prior to the outbreak of hostilities in World War I, and dedicated to Frederic Soddy, who with Lord Rutherford developed the theory of the atomic disintegration of radioactive elements. The novel is concerned with an air war of the mid-twentieth century in which atomic bombs are dropped. World government follows.)

My sessions with the Under Secretary of War, Judge Patterson, and General Farrell were always marked by tenseness on their part," wrote David Lilienthal of the men who had long dealt with him on the mystery
project near Knoxville. The date was August 7, 1945 and Lilienthal had just learned what the power resources of his Tennessee Valley Authority had made possible. Lilienthal was liberal as well as articulate, but his language reveals a common wartime attitude: "It must have been a terrible responsibility—and it still is. For if it is not as the country is led to believe—a full blown discovery, ready to annihilate the Japs—then they are in trouble. If it is as terribly effective as represented, their responsibility is even greater."²

Indeed the responsibilities of Judge Patterson and General Farrell were great, though not as great as those of their superiors, Secretary of War Stimson and Manhattan Project Manager General Groves. It would have been highly embarrassing to divert two billion dollars of resources from sacrificial war efforts, along with what Lilienthal called "the cream of America's scientific crop," and to contribute nothing toward victory. Lewis Strauss has said that no scientist ever expressed to him the view that the bomb should be dropped to justify expenditures,³ and no evidence has appeared to support such a charge, but it was expressed by Admiral Leahy and others.

Eugene Wigner, one of the honored pioneers in nuclear research, says of the scientists that "generally, the higher up they were the more they were in favor of using the bomb in the way it was used." Since the "higher up" scientists were those who had the greater responsibility for the project, they might have been influenced as Lilienthal suggested, but such motivations would scarcely be conscious ones. Equally unsubstantiated is Carroll Quigley's charge that some Air Force officers wanted the atom bombs dropped as an argument that Japan had been defeated by air power.⁵
The views of the scientists on the question of whether the bomb should be used have been widely publicized, but not accurately. Wigner says of them: "Nobody felt guilty. Because to present a technical possibility is not to decide its use." He joined other scientists in a petition that the bomb not be used against inhabitants, because so few others at that time understood the bomb's power. Wigner opposed bombing a city because "we felt it was wiser not to do it. I don't know whether we were right or wrong; and that is not our competence.... But, to my knowledge, none of us felt we had the right to decide what would happen."6

An exception to this attitude was scientist Robert Oppenheimer. Wigner saw no point to Oppenheimer's postwar gesture of saying his hands were bloody, and neither did President Truman. Truman often related how the scientist "sat there and wrung his hands" and said "I have blood on my hands" because he helped make the bomb. "I told him the blood was on my hands—let me worry about that."7 Yet if any scientist had a right to claim such an obsession Oppenheimer had, not because he helped make the bomb, but because of his strange role in encouraging its use.

By March of 1945 informal discussions among the scientists at Chicago, whose work on the bomb project was largely complete, produced some objections to the proposed use of the bomb. Szilard drew up a memorandum expressing concern about postwar relations between the United States and Russia if the bomb were used, and tried to deliver it to President Truman. Szilard was referred to Byrnes instead. Byrnes objected to Szilard's "general demeanor" but was concerned about his statement that "the younger scientists were critical of
Doctors Bush, Compton and Conant" who were being consulted on use of the bomb. Said Byrnes, "I asked him his opinion of Oppenheimer. He quickly expressed enthusiastic admiration." Byrnes then assured Szilard that Oppenheimer would meet with the advisory committee on use of the bomb. "This pleased Szilard and his companions" and they departed.

At Los Alamos, meanwhile, Oppenheimer was demonstrative in his enthusiasm for using the bomb on Hiroshima, calling it a "beautiful" target. One of the workers on the project at Los Alamos reported to a journalist that Oppenheimer's appearance before several hundred waiting scientists there was a fine performance. After Hiroshima he rushed down the aisle to the stage, hands clasped above his head in triumph, and shouted "we dropped one today." Most scientists were less confusing in their attitudes, but they differed from each other sufficiently to cause Byrnes to remark after learning their opinions: "In this age it appears every man must have his own physicist." While the myths about Oppenheimer as pacifist have been most puzzling, the "Hamlet of the atomic energy program" is not the only scientist who has been misrepresented. Dr. Edward Teller who has since been accused of addiction to extreme violence because he developed the hydrogen bomb, says that "to abstain from progress is a medieval idea." But Teller opposed the way the bomb was used just as definitely as Oppenheimer favored it: "I was positive then, and I am positive now, that we made a mistake dropping the bomb without a previous bloodless demonstration." Teller's idea was to drop the bomb over Tokyo at 20,000 feet rather than 2,000 as at Hiroshima. This would keep loss of life at a minimum while creating a terrifying
display where it would count most.\textsuperscript{12}

Oppenheimer could think of no demonstration sufficiently
dramatic,\textsuperscript{13} and it appears he did not search for one. Hard-bitten
General Spaatz, who had blasted Germany and fire-bombed Japan, was more
ingenious. He scarcely knew what to expect from the Hiroshima bomb
and simply followed orders. He became so unhappy over its effects that
he tried to modify the plan to attack another city with the second
bomb. Spaatz called his headquarters in Washington to suggest that
the second bomb be exploded over Tokyo Bay, where it might damage in-
stallations on the shore and create a tremendous impression with
relatively minor loss of life. This proposition appears to have been
more practical than Teller's, but Spaatz was told that the decision
had been made above military levels and he would have to go ahead and
bomb a city as he had been told.\textsuperscript{14}

General Spaatz had accepted area bombing of Japanese cities
despite his faithful adherence to the policy of military precision
targets in Europe. He believed simply that the atomic bomb was too
powerful a weapon to be used in such fashion.

Spaatz recognized the difficulty of bombing Japanese industry with
many of its components "in houses around the community," and he con-
sidered it significant that we ourselves had been bombed by Japan.
"We had not the same urge, the same feeling, as far as the bombing of
Germany was concerned....We didn't hear any complaints from the
American people about mass bombing of Japan; as a matter of fact, I
think they felt the more we did the better. That was our feeling
toward the Japanese at that time."\textsuperscript{15}
General Spaatz's former commander in Europe, General Eisenhower, has stated he was told by Secretary of War Stimson at the Potsdam Conference about the bomb that was to be dropped on the Japanese.

I was getting more and more depressed just thinking about it. Then he asked me for my opinion and I told him I was against it on two counts: First, the Japanese were ready to surrender and it wasn't necessary to hit them with that awful thing. Second, I hated to see our country be the first to use such a weapon. Well, the old gentleman got furious. And I can see how he would. After all, it had been his responsibility to push for all the huge expenditure to develop the bomb, which of course he had a right to do, and was right to do. Still it was an awful problem.16

When General Spaatz briefed Admiral Nimitz on the bomb, the dignified Pacific Fleet Commander showed "no particular reaction," but the more expressive MacArthur commented, "it makes armies and navies unnecessary."17 General MacArthur's psychological warfare officer, General Bonner Fellers, rode from the briefing with him and remembers a more skeptical comment: "They say it will win the war, but I don't know whether it will or not."18 Admiral Lewis Strauss, who was on duty as an assistant to Secretary of the Navy Forrestal, advised the Secretary against dropping the bomb on a city, and was later increasingly proud of that fact.19

General Nathan Twining, who had operational responsibility for the atomic missions as commander of the 20th Air Force, believed the use of the bombs somewhere on Japan was necessary to avoid the planned but useless invasion. He had done his best to dissuade Army friends from their invasion plan and had failed. General Twining reasoned: "If our strategy had not contemplated a surface invasion... the decision to drop the bomb could be reasonably questioned. However...U.S. policy makers...still insisted on an old-fashioned
across-the-beach invasion. In the face of this decision, the bomb had
to be dropped.\textsuperscript{20}

As we have seen, there was just one top military policy-maker who
considered an invasion necessary, General Marshall. The other military
leaders had endorsed no more than planning and preparing for the in-
vasion, yet even that action encouraged the Japanese to resist as long
as possible, in hopes of at last inflicting really heavy damage on
their foe. No military men other than the members of the Joint Chiefs
of Staff, who were represented to the advisory committees by General
Marshall, were consulted on the use of the bomb. General Spaatz, who
received the order to drop the bombs, was merely briefed on the sub-
ject, and he briefed the Army and Navy chiefs in the Pacific just
before the drop. None of the few military men who were let in on the
secret were enthusiastic about the bomb and even General Marshall
himself on occasion had questioned its use.\textsuperscript{21} Surely the atomic bomb
action against Japan was one the most unmilitary of all major actions
in all major wars.

The attitude of General Spaatz toward the bomb is well illustrated
in answers to questions asked him during an interview by C.J.V. Murphy:

"What were the tactics used for dropping the bomb?"

"The tactics used were to go to the target and drop the
the damn thing."

"Do you realize your first emotions when you first saw the
strike pictures and realized what it meant?"

"I don't know what I felt about it. I was impervious to
emotions of any kind at that time."\textsuperscript{22}
General Twining's responsibilities for the mission were somewhat more specific. His informal account of his introduction to the bomb that was to be launched from his airfield is revealing in several respects:

I had no more idea what the atomic bomb was than a rabbit...I knew something was inside the fence over there....I had gotten there and was told this--that we were going to drop it. So I just said No, we aren't going to drop it....I don't know what this thing is.... Besides that, we never knew what the weather was in Japan. It's 2000 miles away. Very difficult to predict...they were wrong half the time. This bomb had to be dropped on a clear day; it couldn't be brought back and we only had one of them. So that was quite a problem. What do you do if you can't drop it, what do you do with it? I still don't know what we would have done....I was led inside the fence and...they told me what the bomb would do. Of course I didn't believe them at all. It was an awful looking thing--warts all over it--the last thing you would expect while looking at a bomb--terrible. Then I said I wanted to see the crew that's going to drop this thing. Are they any good? Of course they were--Air Force....So I was feeling pretty good by this time and I asked them a question. I said, "Can you drop that pumpkin--they called it a pumpkin--can you hit anything with that pumpkin in the general area with that shape?" "Oh," they said "Don't worry." Well, so we did it and we got a break on the weather, and that was it.\(^3\)

General Twining's 20th Air Force was operating 923 B-29s over Japan at the time. Altogether they could deliver four times as much destruction as the plane with the atomic bomb, but on the day of the atomic mission General Twining worried most about that one plane. The B-29 was named "Enola Gay" for the mother of crack pilot Paul Tibbetts who lived in Glidden, Iowa. The story of the mission itself is now well known but some informal comments on the entire project by the now Brigadier General Tibbetts, Jr., Retired, are of interest.

An indication of the thoroughness with which the first atomic mission was planned is the fact that the crew and plane had nine
previous missions over Japan, dropping a conventional atomic-shaped bomb each time. Other crews of the atomic bomb unit also practiced on individual missions which were possible because the U.S. Air Force had gained control of the air over Japan. There was no fiasco such as Hitler bombing cities in England before defeating the Royal Air Force. Fighter planes had been flying 10-hour missions from Iwo Jima to help gain air control. General LeMay would later boast, it had become safer to fly over Japan, despite a few remaining Japanese fighters and guns, than to fly on a training mission in the United States.

The "practice shapes" used in training were Nagasaki types and carried 5000 pounds of explosive. General LeMay was so pleased with the results achieved by Tibbetts' highly trained crews and the "pumpkins" that after the first 45 were expended he ordered 100 more. The one hundred "conventional atomic shapes" were sent, but were never needed. There were plenty of bomb-shells around, despite the extreme shortage of fissionable cores for them.

On the night before the Hiroshima mission Tibbetts told his crew something about the object they were to drop and showed them pictures of the Alamogordo test. One crew member, like Tibbetts, had studied chemistry in college and had begun to guess what the bomb was. During three months of training in the United States he and his men had been in contact with some scientists of the Manhattan Project and "met quite a few that, shall we say, were a little bit different from the average man that we were used to dealing with. We had some of the typically absent-minded professors that we dealt with. But, brilliant men in their fields. They never paid too much attention to us."
After the explosion they could understand the scientists a little better. The mission was "a perfectly unexciting and routine thing--up until taking a look at the damage that had been done. It was a little bit hard to realize--kind of inconceivable as to what we were looking at. This explosion was so big compared to anything of any kind any of us had ever seen before that it seemed almost unreal." A Japanese fighter plane came up "to see who and what caused that kind of sight" but never got close.

The uneventful Hiroshima trip was followed by the very eventful Nagasaki mission. Tibbetts sent his squadron commander, Major Sweeney, on the second atomic delivery flight, along with his best bombardier, Kermit Beehan, who had "been through as many troubles as a man could go through." Sweeney said "after all these months I know Beehan real well, and if Beehan says to fly the airplane upside down, I'll try it." Over Nagasaki, Beehan saved the situation by getting the bomb off on a second run just as clouds closed in, with barely enough gas left to reach Okinawa. 27

Beehan knew he had dropped the bomb a mile and a half northeast of the target, but it had to go. General Doolittle, who knew General Spaatz's views, said "I'm sure General Spaatz will be much happier to know that the bomb went off up there in the industrial area instead of over the city of Nagasaki." 28 Nagasaki suffered only half the casualties of Hiroshima. General Groves also was relieved at the lesser damage, but this raises a question as to why an aiming point for maximum damage was selected in the first place. General Farrell, Groves's deputy, said to Beehan "you picked a better aiming point in thirty seconds than we did in thirty months of studying." 29
Thirty months is a long time to study targets and to be improved upon by an accident. What did the scientists want in a target? General Tibbetts is quite definite about it. He says that Dr. Vannevar Bush headed a committee of people from the Manhattan District who directed a group of target analysts in the Pentagon to select targets in Japan that had not been bombed.

They wanted virgin targets, and the reason behind it—even though not given to the group at the time—was that they wanted to make bomb blast studies, or bomb damage studies, on virgin targets once the bombs were used.... They were definitely military targets. There was no question about that, and they offered, say, a classroom experiment, as far as being able to determine the bomb damage later. These were good virgin targets, and they were ideal for the purpose we wanted to use them for.30

Although the word "virgin" seems to have gone out of use in connection with targets, General Groves is almost equally blunt in explaining that he insisted on bombing Kyoto, until finally overruled by Stimson and Truman, because "it was large enough to ensure that the damage from the bomb would run out within the city, which would give a firm understanding of its destructive power."31

Kyoto itself, as Groves points out, contained a considerable amount of industry although it was not primarily an industrial city. This cultural center, with a population of more than a million, was saved by Stimson despite Groves’s insistence, because of the tearful pleading of a young professor who was serving in Army intelligence. He was Edwin O. Reischauer, who became United States Ambassador to Japan.32 But for his sentiment for the city of temples, and for Stimson’s inefficiency as a tester of bombs, the death toll would surely have been multiplied several times.
More than a year later Secretary Stimson, now near death, was disturbed by a rumor that the Air Force had put Kyoto back on the target list and that it had been the primary target for the second mission. Through Secretary Patterson, General Spaatz reassured him that such was not the case. 33 He had chosen, for "operational" reasons, the most "military" of the three remaining targets, Kokura, "The arsenal city." Kokura was obscured by clouds so the target which had replaced Kyoto on the list was bombed in its stead.

General Groves, some weeks after being overruled on Kyoto, finally agreed with the decision and asked General Arnold to keep it on the list of targets proscribed from fire bombing, so that it might remain "virgin" and never be sacrificed at all. 34 Haakon Chevalier, the man Oppenheimer falsely accused of spying, says "the General was not blood-thirsty, but he was certainly a stickler for efficiency." 35

The efficiency sought from the atomic bombs was obviously damage testing rather than maximum military or even industrial damage, and this is one of the reasons why military men were not asked to pick the targets. At Nagasaki the damage was concentrated in the Urakami Vallen. There was some heavy industry in this valley, but its destruction was pure accident, as we have seen. At Hiroshima, despite the near complete destruction of the central city, only about one-fourth of the city's industrial production was damaged. The principal heavy industries were more than two miles from the aiming point for the bomb, and they were undamaged. 36

The point here is not that the selection of targets for testing purposes was wholly censurable. Perhaps it was not. Most of the scientists believed, correctly, that other nations would soon have the
bomb and the United States would from that time be a possible target. To learn thoroughly the precise nature of the consequent danger was an understandable goal. Nevertheless, the target selection was scientific, not military.

In the unclassified portion of General Arnold's papers in the Library of Congress is one folder marked "Atomic Bomb." It contains a sheet of scrap paper with just the names of four cities, printed by hand: Kyoto, Nagasaki, Hiroshima, Shimonoseki. By the name of each city, small pencilled numbers indicate the population. Nevertheless, General Arnold must have understood, as did Colonel Tibbetts, that what was wanted was not a maximum number of inhabitants but the associated maximum area for testing the effects of the bomb.

Tibbetts considered the atomic bomb decision a "political" one, as did General Spaatz, who said simply "it wasn't a military decision." At first General Spaatz was ordered orally to drop the atom bomb but he understood the significance of his action well enough to insist upon written orders. Despite the fact that General Spaatz considered the bombing of cities a legitimate form of warfare if the cities contained war industry, he did not choose to misuse the word "military" as both Stimson and Truman misused it.

Spaatz pointed out that "the fire bombing was just as disastrous in a way as the atomic bombing" and also that "we stuck rather rigidly in the European war to at least having a military target as the objective." He recognized that "a lot of the bombing was inaccurate enough--dropping through the overcast...having it scattered around enough--so that the general effect was the same as area bombing. But, the operation was directed toward military targets." General Spaatz
always insisted this principle was followed not "just for humanitarian purposes," but for sound military reasons. He did not consider just any reason to be a sound military reason, not even in the midst of a war.\textsuperscript{37}

With equal honesty General Arnold revealed, just a year after the war, that a "large fraction" of each square mile of destruction visited upon Japanese cities was "personal property and institutions not needed in war production." One-eighth of the total Japanese loss was calculated as "strategic loss of war effort."\textsuperscript{38} By "strategic loss" General Arnold meant loss which would not be subtracted from Japanese military capabilities for many months to come, or long after the war was over.

President Truman, on the other hand, followed the prevailing custom of the civilian leadership when he spoke of using the bomb "in the manner prescribed by the laws of war. That meant that I wanted it dropped on a military target." That in turn meant, however, "a war production center of prime military importance."\textsuperscript{39} And that meant, in final application, any large city—almost Kyoto, and finally Hiroshima and Nagasaki. There were, of course, no laws of war that were recognized as applicable to the use of nuclear weapons or even to the bombing of cities.

President Truman reported in another context that he asked Secretary Stimson which cities were "devoted exclusively to war production."\textsuperscript{40} The answer, unrecorded, should have been "none." In his speech of August 9 the President took credit for making a distinction between a military target and a city: "The world will note that the first atomic bomb was dropped on Hiroshima, a military base. That was
because we wished in the first attack to avoid insofar as possible the killing of civilians." 41 Had a "military base" been bombed, instead of a city, the President's statement would have been true.

Robert Batchelder insists this type of thinking was not peculiar to Mr. Truman. "He merely reflected the general consensus among American leaders." Batchelder learned from Arthur H. Compton (who, like Tibbetts, used the term "virgin targets") and from James B. Conant, that these leading scientists and the Interim Committee on the use of the bomb all applied the word "military" to any type of target, but especially to cities. 42 "In spite of the genuine concern of Truman and Stimson to minimize civilian losses, their unquestioning approval of a large city as a target guaranteed maximum civilian losses. In fact, it would have been difficult to devise," Batchelder concludes, "any use of the atomic bomb that could have taken more civilian lives." 43

It would be comforting if all the inevitable tragedy surrounding the manner in which the bomb was used could be blamed on misuse of the word "military." The word had come to mean simply "approved" or "necessary," or just "desirable" in war. The fault lies, of course, not in semantics, but in the absence from America of any recognized principle or any system of ethics regarding the use of force.

While the men of responsibility who made the difficult decisions regarding the bomb may be charged with twisting language, some of their strongest critics have been guilty of pure fabrication. The fakery surrounding the irresponsible ex-pilot, Claude Eatherly, offers an excellent example. As late as 1967 Texan Ronnie Dugger added yet another book 44 to the literature presenting Eatherly as a hero despite previous exposures of his crimes and pretensions.
Eatherly, who wanted to fly the plane that dropped the bomb, was assigned instead to fly a weather observation plane on the same day. After some postwar trouble with the law, he had, like Robert Oppenheimer, dramatized his self-proclaimed guilt complex to the applause of many. Typical of the falsehoods surrounding Eatherly is Dugger's claim that he found success and recognition in the Air Force, when in fact he was asked to leave it after cheating on an examination. Bertrand Russell proclaimed Eatherly a "hero of dissent" who "devoted himself throughout many years to various kinds of civil disobedience." This consisted of robbery and other crimes. For years the "Bulletin of the Atomic Scientists" carried frequent laudatory references to Eatherly, including one long poem in French, plus charges by Szilard and others that air crews connected with the atomic missions had degenerated in ways similar to Eatherly. None of these statements were based on fact.

Colonel Paul Tibbetts, the actual pilot of the Hiroshima plane, has recently stated that seeing American prisoners of war released from Japanese camps repaid him for his efforts toward the well-performed mission that dropped the first atomic bomb. He has been "subjected many times to criticism--primarily of Communist origin." No one ever stepped forward to defend him. "I have been accused of being insane, being a drunkard, being everything you could imagine a derelict to be as a result of a guilty conscience." When stationed in India he was the object of a seven-week vilification by a Communist controlled newspaper in New Delhi. "I was never supported by anyone. So, I look at it this way--that my part in this thing may well have been something that...the less said about it by the U.S. Government,
the better...they couldn't afford, in the political arena today, to come in and defend me...this is conjecture....I've no regrets. I hold no feelings of ill against anybody....The Air Force has been good to me."49

Surprisingly little speculation has appeared on whether the atomic bomb would have been used against Germany if it had been ready in time. General Tibbetts is convinced that it would have been. In September of 1944, when he formed his atomic delivery organization, he was directed to develop a unit "capable of a split operation, and this split meant Germany. Taking one part of the unit to Germany, one part to Japan. It could well have been a simultaneous drop, had Germany lasted."50 Whether or not an atomic bomb would have been dropped on a German city is an unanswered question but American policies toward Germany (Chapter I) indicate it would not have been so employed.

One of the excuses for ordering the second atomic bomb dropped so soon, three days after the first, is the fact that there were only two more bombs. The intent was to give the impression of atomic plenty, or so it was said. The third bomb was en route. General Groves has said that it would have been ready by August 24, while Herbert Feis says before August 20.51 Tibbetts' estimate is that the third bomb, which was stopped in San Francisco, could have been delivered by the 10th of August and used in another two days.

Just why the Nagasaki bomb had to be used in such a hurry has never been explained satisfactorily. Explanatory effort has been concentrated on the first bomb, which was in some respects excusable as an experiment. No one knew for sure what it would do. But, as General Spaatz asked, why drop the second bomb on a city after the
first had provided so complete a test? Still puzzling, as it was to air commanders at the time, is the matter of the six million leaflets which other B-29s dropped, just after the Hiroshima bomb, with just three days allowed for Japanese people to "petition the Emperor" as they were requested to do. Time was not allowed for the government in Tokyo to hear about the Hiroshima bomb, confirm reports, and make up its mind.

This is yet another reason why dropping a bomb near Tokyo would have been more persuasive, as General Spaatz suggested. President Truman's speech threatening the dropping of other bombs was made after the second bomb had already fallen on Nagasaki. As Batchelder has pointed out, neither the contemporary discussion nor later accounts admit the brevity of the interval between the two drops.52

The second atomic sortie was officially scheduled for August 11, which was too soon in any event, and when typically cloudy weather threatened, the air commander's instructions caused him to hurry up the drop rather than to postpone it. The rushed effort very nearly created the disastrous necessity of returning to Okinawa with the bomb, dropping it on some invisible target, or dumping it into the sea. There is every indication, according to Batchelder and other students of the final surrender and its causes, "that the atomic bombing of Nagasaki was unnecessary."53

It was as though the few responsible authorities in Washington--Secretary Stimson, Secretary Byrnes, President Truman and General Groves--having agonized, intermittently for months on the possible and permissible uses of the first bomb, left unplanned events to run their erratic course with regard to the second bomb. The President,
en route from Potsdam by ship instead of by plane, was personally out
of touch as the bombs fell; the Secretary of State was preoccupied
with Europe; General Marshall was intent, as always, on the invasion;
and the tired and in some ways antique Mr. Stimson\textsuperscript{54} was often out of
the picture; so it was General Groves, a technician, who made the
decision for the third bomb to be stopped at San Francisco. It was
left up to an Air Force commander, halfway around the world, to select
one of three targets assigned against his advise. He was to time the
drop for a specific date despite the unpredictable and generally bad
weather and was allowed discretion in timing with no understanding of
its obscure purpose. He was thus to juggle the most dangerous and un-
returnable of weapons to achieve a purpose which has never yet been
clearly stated. After Nagasaki, arguments justifying the use of the
first bomb continued to be heard, but practically none for the second
bomb.

To have launched one juggernaut for a purpose which at least was
understandable, then to have abandoned all control and direction of a
second blast—this may well be the most regrettable feature of the
entire episode of the atomic bombs. It is the continuing shock of
Nagasaki. Was this the kind of performance H. G. Wells had in mind
when he wrote of atomic bombs that would fall from fumbling hands?

Two days after Nagasaki all B-29s en route to the Pacific were
stopped.\textsuperscript{55} Only three more industrial targets in Japan were bombed,
aside from oil targets, after August 11.\textsuperscript{56} Spaatz was reducing his
operations ahead of the anticipated surrender. An indication of how
little the atomic bombs were needed to add to the destruction is the
fact that the 20th Air Force was then prepared to drop in two months
more bombs than it had dropped in the previous year—165,000 tons.\footnote{57}

All this in answer to just 100 tons of bombs dropped by the Japanese at Pearl Harbor.

The Japanese Air Force, or what was left of it, died hard. Even after August 15 a few Japanese fighters attacked American reconnaissance planes over Tokyo, but with little effect.\footnote{58}

In the House of Commons on August 16 Churchill said, with his uncanny prescience: "There are at least three and perhaps four years before the concrete progress made in the United States can be overtaken."\footnote{59} Just five weeks earlier, at Potsdam, he had told Lord Moran that if the Russians had got the bomb it would be the end of civilization. "It has come just in time to save the world." With three years of grace remaining we must fix things up with the Russians, he said, since Britain and America were the only great nations with principles.\footnote{60} Few Americans were worried about Russia at the time, and few military men other than those who had contact with Russian officials could think of them as other than hard-fighting allies who had suffered many casualties. Churchill had no such sentiment, for he had fought Hitler alone when Stalin was allied with the Nazi leader.

Americans soon learned their respected ally had attacked at the last possible moment. On the way to Okinawa after bombing Nagasaki on August 9, the crew heard news of Russian entry into the war, which some people still maintain was more decisive than the atomic bombs.

Alone among leading American airmen, General Chennault thought the surrender of Japan had been caused by Russian entry into the Manchuria.\footnote{61} General MacArthur's air commander, General Ennis Whitehead, had no illusions about the end of the war or meaning of the
Russian advance. He later wrote: "When the Japanese surrendered it seemed very apparent that the forces which will eventually cause World War III were already in motion. I have devoted my energies to preparing myself and whatever unit I may command." 62 Another unusual reaction from a military man was General Kenneth Wolfe's view that "If we had not dropped it and found out the capabilities of the bomb, we certainly would not have the hydrogen bomb today." 63 At the time General Arnold, General Spaatz and their staffs were already worried about what they knew would be a more general and a very different reaction to the dropping of the bombs.

Soon after the surrender, General Spaatz, who had landed with General MacArthur at Atsugi airport near Tokyo "right in the midst" of hundreds of thousands of armed Japanese soldiers, was concerned about some 200 newswriters already on the way to Hiroshima and Nagasaki. He strongly advised against censorship but hoped to release stories of Japanese atrocities against B-29 crews "to offset probable reactions to atomic bomb damage stories." It was not possible, however, "to get air-tight evidence soon enough." 64 Even more forlorn was a suggestion by General Norstad, Air Force Operations Officer in the Pentagon, to General Spaatz: "It is believed that the accuracy with which the Hiroshima bomb was placed may counter a thought that the project involved wanton, indiscriminate bombing." 65

Unfortunately, the skillful drop was very discriminate for testing the bomb and achieving maximum destruction on the city, as directed, but not for any other purpose. General Groves' prompt action in ordering scientific and medical teams into Japan to investigate contaminated areas and help treat casualties was more helpful,
but all efforts of this type were overshadowed by grieved and often horrified reports of the unprecedented effects of the bomb.

No sooner did reports of the bomb's effects reach the outside world than there was speculation as to the consequences of its use. As time has passed the gloomy speculations have tended to increase. The most durable opposite view is stated by historian Carroll Quigley: "If we had not used the bomb on Japan, we would have been quite incapable of preventing the Soviet ground forces from expanding wherever they were ordered in 1946 and later." 67

Also interesting is famed Washington journalist Richard Rovere's speculation that "If we had spared Hiroshima and Nagasaki, we would have been all the more strongly tempted to use it on Moscow and Leningrad a couple of years later." 68 In the absence of evidence that any one in authority was ever so tempted, this speculation appears unfounded. Another favorable comment came from Robert Oppenheimer, the confused and confusing physicist whose changing attitudes toward the bomb and the problems it caused are still not entirely explainable. Oppenheimer suggested that the use of the atomic bomb fortunately brought its existence into view so that the nuclear weapons problem could be dealt with openly. 69

Pessimistic comments were much more common; witness Chester Barnard's "this is the end of our democracy," and the later comment of the dying Senator Vandenberg to his pastor: "I do not know the answer to this awful problem we have brought upon ourselves." 70 Also ill, H. G. Wells wrote a classic sentence of despair regarding the world situation as he saw it in 1945: "There is no way out or around or through the impasse. It is the end." 71
Varied reasons have since been advanced for Hiroshima, though not for Nagasaki. Assistant Secretary of War McCloy, who strongly opposed plans for the invasion, nevertheless considered it might occur, so he favored the use of the bomb. He was also conscious of the fact that American forces in the Pacific were still losing about 250 men a day while the war continued. Though tired, aging and ill, ex-Secretary Stimson, who had served as Secretary of War under Taft and as Secretary of State under Hoover, manfully defended his advice to use the bombs and accepted full responsibility. He was a man of such distinction and such reverence for distinction, as Walt Rostow explained, that he considered the Russians would react to participation in the UN as would a grateful outsider to membership in an exclusive Ivy League fraternity, and so would become worthy of the honor. The old gentleman, who is reported to have said in an earlier time that code-breaking should be forbidden "because gentlemen do not read each other's mail" and who uttered homilies to the effect that "trusting" the Russians would make them trust us, seems an unlikely candidate to bear the burden of having launched the most terrible of weapons.

Stimson's defense of his decision included an unfortunate phrase: "There was no sign of any weakening of the Japanese determination to fight," which was promptly and effectively countered by Japanese-speaking P. J. Byrne of the Maryknoll Fathers, who was interned in Kyoto throughout the war. Byrne though it "passing strange" that American Army authorities could find no weakening when the Japanese were already starving. Their Navy was gone, their Army in Manchuria was cut off, the industry lay in ruins. Their Army was defeated throughout the Pacific and their Air Force was no longer able to
disturb the raiding B-29s. Father Byrne said the fall of Saipan, which could not be concealed, caused more consternation than the atomic bombs because it proved the Japanese government's deception concerning the entire war situation. He found the Japanese people more friendly to the Americans who did the bombing than to "the asinine government" which would rather see them all destroyed than admit its error.72

The Washington Post, which printed Father Byrne's comments, came to the conclusion that "the estimate of the situation in the War Department was askew."73

Among other recent revisions of previous views it now appears that the role of the atomic scientists in trying to modify plans to use the bomb has been greatly exaggerated. Opposition to its use came mostly from a highly articulate and active minority concentrated at Chicago. Polls taken among the scientists were inconclusive; scientists in general had no better knowledge of the situation in Japan than did Army intelligence for they were presented with information only from that source. Kenneth Moll concludes that the significance of the scientist's opposition was "far greater as a propaganda tool after the war than it ever was as a decision making aid in 1945."74

Nevertheless, the opposition scientists did make themselves heard in some degree before the first bomb was dropped and thus they bolstered their negative influence after the war. This was far more than the military men could achieve, for in choosing the first target "so far as is known the President did not solicit the views of the military or naval staffs, nor were they offered."75

Judging by results, it might be said that the greatest decisions in warfare are too important to be left to Cabinet Members and
scientific or academic administrators. Yet the fatalistic "war is war" attitude that is most dangerous for the future seems to appear in all groups. General Bradley defended the use of the bomb—apparently any use—by saying "war itself is immoral." McGeorge Bundy said of Stimson that "in recommending the use of the atomic bomb he was implicitly confessing that there could be no significant limits to the horror of modern war." Scientist Arthur Compton wrote: "Thoughts of my pacifist Mennonite ancestors flashed through my mind...I wanted the war to end. I wanted life to become normal again."

General Vanderberg once observed that the devotion of the American people to the cause of peace did not make them less anxious for decisive action, and their determination not to fight in the first place made them all the more impatient to end a war, sometimes regardless of means. Yet defeatism concerning the possible control and restraint of violence could well prove a fatal flaw in the nation's character. We bear the burden of failure to develop a rational and useful ethic for the careful direction of modern war—and of reliance upon futile declamations and weak gestures against wars in general. We now try to outlive the falsely justified choice of Hiroshima as a target and the many-handed fumble that dropped an ill-timed and indecisive atomic bomb on Nagasaki.
Chapter IV--Footnotes


6. Wigner in Look Magazine. Wigner states he revised his original view against the drop after reading Herbert Feis, Japan Subdued.


12. Dr. Edward Teller, Ibid., p. 117.


16. General Eisenhowe, Interview, Newsweek, November 11, 1963. Also, Kenneth Moll, Nuclear Strategy, Masters Thesis, University of Omaha, 1965, Unpublished, p. 2. Ex-President Eisenhower's memory may be better than that of his predecessor, but on the subject of nuclear weapons many memories have proved inexact. General Groves has written Moll that neither Eisenhower nor Stimson ever told him of this conversation and further that he thinks the idea of Japanese readiness to surrender was just "wishful thinking."
17. General Carl Spaatz, Interview by C.J.V. Murphy, March 1948, Unpublished, Spaatz Papers.

18. General Bonner Fellers, Interview by Author, December 1967, Authors notes.


22. General Carl Spaatz, Interview by C.J.V. Murphy, March 1948, Unpublished, Spaatz Papers.


28. Captain Frederick L. Ashworth, *Dropping the Atomic Bomb on Nagasaki*, United States Naval Institute Proceedings, January 1958, p. 17. There is some question, according to Kenneth Moll, whether the bomb actually struck an area that was primarily industrial.


33. Secretary of War Patterson to Former Secretary Stimson, December 10, 1966, Patterson Papers.


41. Ibid., p. 158.

42. Ibid., pp. 158-59.

43. Ibid., p. 188.


50. Ibid.


53. Ibid., p. 154.
54. This judgment of Mr. Stimson is based on his visit to the author's Negro pilot school at Tuskegee, Alabama in 1942 when he advised a kind of fatherly patience toward Negroes, who might some day develop capacities for leadership and responsibility even as Filipinos had done. Mr. Stimson was dignified and detached, patrician in manner, listened poorly and tired easily.

55. Radiogram, 1500 Base Unit, August 11, Spaatz Papers.

56. General Spaatz's Final Report to Secretary of War, Spaatz Papers.

57. Ibid.


59. 5th Series, Hansard, Vol. 413, Commons, p. 80.


64. Message, Spaatz to Arnold, August 1945, Spaatz Papers.

65. Message, Norstad to Spaatz, August 13, 1945, Spaatz Papers.


67. Carroll Quigley, Tragedy and Hope, p. 864.

68. Richard Rovere in Hiroshima Plus 20, p. 112.


79. General Vandenberg at Memphis, Tenn., November 11, 1949, Author's file.
Chapter V
The Shock of Nagasaki

...the gods are driven from the sky
By the probeful steel of the brain...

John Williams Andrews, 1936

Americans on the home front, with a few notable exceptions, seemed to think that by winning the war they had magically created a utopian world in which the enemies of free men no longer existed.

General Nathan Twining

...There will be Russia
And America; two powers alone in the world; two bulls in one pasture...

Robinson Jeffers, "Teheran"

No major strategic threat or requirement now exists nor, in the opinion of the country's best strategists, will such a requirement exist for the next three to five years.

From the first postwar plan for the training and employment of the U.S. Strategic Air Command. July 25, 1946

In the first two years following the bombing of Nagasaki, several developments were important to the purposes of this study. These include:

1. A debate over the employment of atomic bombs.
2. The rushed and indiscriminate demobilization of the armed forces.

3. Increasing difficulties with Communist nations.

4. The slow growth of a postwar military policy.

5. A limited continuation of atomic weapons manufacture.

6. The hopeful effort toward a United Nations military force.

These subjects will be treated in turn.

When the news of the Hiroshima bomb reached the plant at Oak Ridge there was considerable enthusiasm; newspapers sold for a dollar a copy. But when the Nagasaki bomb was dropped the workers at Oak Ridge were discouraged. "We began to wonder how many atomic bombs were going to have to be dropped." 2 At Columbia University Dr. William Pollard, a 1936 Rice University Ph.D. in physics, was "exhilarated" when he heard the news of Hiroshima. He and his colleagues knew their work on uranium had been effective. But when the Nagasaki bomb was dropped his mood changed "to something approaching terror. I thought the bombs would be sprinkled all over Japan." 3 The Nagasaki bomb emphasized the possibility that the atomic bomb, unless handled more intelligently, could well become an open-ended problem.

Aviation expert Alexander de Seversky visited the target cities and wrote Secretary of War Patterson that the atomic bomb seemed to fit everybody's prejudice. Both the U.S. Army and the Japanese Army saved face when the bomb enabled them to avoid the bloody battle on the beaches to which each army was committed.

A mere three percent of the total destruction imposed on Japan thus had great value for both the victors and the defeated, said
de Seversky. Isolationists could claim to be safe behind the bomb, and internationalists could warn that other nations would imitate and dominate the United States. Seversky warned against "surrendering to...a kind of atomic frenzy."

Swiss journalist Urs Schwarz has commented that Americans, who tend to regard all war as a conflict between good and evil, "suddenly visualized an ultimate weapon to deter and punish the wrongdoers. And because the United States would never attack, war would henceforth be impossible." Yet, Schwarz observed, this attitude was opposed by a pessimistic trend begun in the churches and among liberal intellectuals. Since there exists in the United States an attitude of latent anxiety, "In the year 1945, the self-destruction of mankind, doomsday wrought by man, seemed possible." This chaos had to be rationalized, Schwarz believes, so the number of Americans who ask questions about war expanded to include the world of scholarly thought. "Were the military men involved as well?" Schwarz thinks not; at least, not right away.¹ His comment appears accurate, in general, but there were notable exceptions.

The reaction of military men to the bomb was originally muted. It was unseemly for leaders to ask questions before answers could be provided. Answers were tentative until personal and service responsibilities and beliefs could be related to the new fact. Thus reactions were varied and inconclusive. General Twining blamed scientists and statesmen for assuring people "that the atomic bomb in our arsenal solved everything."² Admiral Leahy was certain it would be developed and probably used against us.³ General Spaatz said atomic bombs did not eliminate armies and navies but they make it possible to have a
smaller Air Force than would otherwise be required. Secrecy, he said, made the bomb a difficult subject to discuss. General Groves advised Admiral Leahy that atomic secrets should be given to nobody, not even England. General Bonner Fellers wrote President Truman, on behalf of the Veterans of Foreign Wars, that the United States should retain atomic processes and equipment "until an effective means of international control has been established." There was a remarkable willingness to accept international control for atomic weapons. Secretary of War Patterson told a Pentagon group that he hoped a plan for international control would soon be accepted. He clarified the significance of the bomb by explaining that 210 B-29s with high explosive bombs could have equaled the atomic bomb's damage at Hiroshima and that only 120 such bombers could match the damage at Nagasaki. Yet 200 B-29s with atomic weapons could do to Germany all the damage of the last eight months of bombing there, with no time for its repair. The Secretary also remarked that if battleships were not worth a bomb, as the Navy claimed, it was a good argument for not building battleships. He was more concerned about the bomb's applications than about the dubious possibilities of its control.

Admiral Leahy, who dreaded and hated the bomb from the beginning, had no illusions about the international control of it. He recognized that the UN could not control atomic weapons as long as it retained the veto rule and was surprised that almost everyone expected to have both control and the veto. He was puzzled by the refusal of a British delegation, and of our State Department, to categorically recommend the prohibiting of atomic bombs in war. The President had expressed a desire to obtain such an agreement. Admiral Leahy had no
faith in a British-American conference on "outlawing" nuclear weapons in war, since "Mr. Atlee refuses to admit even by inference that there will ever be another war."12

The Prime Minister was not alone in his refusal to admit the possibility of war. In this period it seemed that almost everyone who made a speech or wrote a paragraph was expected to admonish the human race never to fight again. Mr. Stimson, retired, said "we must never have another war...there is no other choice."13 The New York Times said "war cannot be made humane. It can only be abolished."14 General Lindbergh said "life would be intolerable here in America if we knew that an irresponsible foreign government could, without warning, send an atomic rocket hurtling toward every city in our country...it would be like living with a rifle always pointed at your head."15

Writer and critic Lewis Mumford predicted that as nuclear stockpiles increase there will be a revival of classic and quack religions, with even atomic scientists joining the cults. "Suicides become more frequent, especially among those carrying the weight of responsibility in science and military affairs; and the taking of drugs to produce exhilaration or sleep becomes practically universal." Mumford predicted that if "atomic fear prevents war for a century" cities will be practically abandoned. Apt youths will be set aside for science training at age twelve. Regressive actions will include fantasy, "purposeless sexual promiscuity," narcotic indulgence and catatonic trance, "a living death." Mumford warned that "unconditional cooperation on a world scale" was the only alternative.16

In the same publication Admiral W. H. P. Blandy wrote that "without a satisfactory international agreement to control atomic
energy...we will be forced into an atomic arms race of which the consequences are so appalling as to defy description." He had underrated Mumford's descriptive powers. The outstanding sensation of atomic literature, by all odds, was John Hersey's *Hiroshima*, a terrifying treatment of the impact of the bomb on certain individuals in that city. Colonel Robert Allen wrote to Secretary Patterson that the intent of Hersey's book was to create pity for the poor Japanese and cause us to "regard ourselves as the real criminals." Allen predicted other writers in the years ahead would portray the Germans and the Japanese as nice people "oppressed and tortured by the American militarists." Hersey's *Hiroshima* appeared in the *New Yorker* magazine of August 31, 1946. There were some irate letters and some subscriptions were cancelled but according to James Thurber "before long a copy of that issue, if you could find one, cost twenty-five dollars." Assistant Secretary of War McCloy added fear to feelings of guilt by declaring that it would be possible to create a hydrogen bomb which would explode with 1000 times the power of an atom bomb. Historian Herbert Feis, perhaps the best informed and most persuasive apologist for the original use of the bombs, wrote of the future: "expect both old and young to be neurotic. Expect them to go to the devil in a desperate effort to forget the devil in wait." Sociologist Harold Lasswell was of the optimistic minority. He expected fear to recede with familiarity, except for occasional scares.

Veteran historian of war Quincy Wright took the problem in stride and remembered that three centuries had been required for firearms to become decisive in war, while atomic bombs had become decisive in just
three years from the time they were invented. His survey of various public opinion polls in December of 1946 showed that 80 to 90 percent of Americans expressing an opinion expected a war in which atomic bombs would be used against the United States, 75 percent expected the war within 25 years, and 90 percent thought Russia would be the enemy. Two-thirds expected Russia would have atomic bombs in three years. Sixty percent would be willing to destroy American atomic bombs under international control. At the same time, a majority wished to keep the bomb's method of manufacture secret.23

Senator Fulbright of Arkansas displayed his talent for adding to confusion when he demanded immediate abolition of the right of veto in the UN. He was not deterred by the fact that an attempt to do so would greatly endanger Senate approval of that organization.24 Major Bruce Blakeny, American defense counsel for the accused Japanese, told the International War Crimes Tribunal in Tokyo that the use of the atomic bomb against Japan was as murderous as Japan's sneak attack on Pearl Harbor.25 Russia announced in the United Nations that war leaders using atomic bombs in the future would be considered as guilty of international crimes against humanity as were the Nazis at Nuremberg.25

Lise Meitner, whose research cleared one path toward discovery of the atomic bomb, emphasized that she "didn't split the atom for a bomb."26 British Labor leader Sir Stafford Cripps demanded a solution through "Christian devotion and Socialist determination" while Harold Laski, left wing Labor Party leader, predicted the atomic bomb would lead to the realization of international socialism and would outlaw war.27 In America, David Lilienthal, a foe of censorship, deplored scare stories about the obliteration of all life, two-headed children
and such, and declared "we should show the scientists who talk this way how quickly some terrible measures of suppression, violation of civil rights, etc., could follow if vast terrors were aroused by such horror stories."\textsuperscript{28}

Against this background of noise, most military men were content to keep relatively quiet. Here and there a specialist would seize the chance to get his "plugs" in early. Major General Alden Waite, Chief of the Chemical Warfare Service who once openly advocated his own promotion, promoted his specialty with an appeal to pacifist sentiment by saying "it is unintelligent note to make use of germs and poison gas in order to speed the end of war."\textsuperscript{29} An international Congress of Microbiology in Copenhagen called attention to the fact that the dangers of technological progress are not all atomic. The microbiologists feared that small nations "could be driven into use of bacteriological warfare in defense against those nations possessing atomic bombs."\textsuperscript{30}

Meanwhile, in the world's only atomic bomb force, there was not much activity or progress. Six Air Corps officers were attached to the Manhattan Project to learn about atomic bombs, since it was thought that within months there would be a few of them in the U.S. Army Air Forces' inventory. Once of the select six officers was sickened by pictures of Hiroshima survivors and, not long after, died of a heart attack. At least two others were disturbed by the Nuremberg trials and were reluctant even to consider the possibility of using atomic bombs.

The air staff was resistant to the idea of introducing atomic bombs into Air Force organizational structure. Brigadier General
Phillips, a key staff officer, assured the few people working on the
problem that no more atomic bombs would ever be dropped. The Tactical
Air Command successfully resisted all consideration of the adaptation
of atomic weapons for tactical purposes for many months, until pres-
sured by a few enthusiasts. The Strategic Air Command set aside a
small unit to handle the few bombs it expected to receive, but interest
was minimal. At that time it was expected that the United States
would have an air force of at least seventy groups, which was con-
sidered a respectable force without reliance on atomic weapons. The
new Rand Corporation for research into strategic problems was assigned
no work whatever in connection with atomic bombs. 31

Air Force Major General Earl Partridge wrote Lt. General Muir
Fairchild, Commandant of the new Air War College, on the proposed
curriculum for the one year course. "Isn't it necessary to devote
more than one hour to the atomic bomb?" Partridge asked. "This is
one of the most important discoveries...and its capabilities, to-
gether with the implications of its employment, should be carefully
explained." 32

Despite considerable indifference and even aversion toward
atomic weapons within the Army Air Forces, as in other military units,
the Air Forces had to rely upon the well-established prestige of the
powerful bombs. The ravages of rapid demobilization had so crippled
the Service that there were only two fully operational combat groups
in the United States in 1946 and these were necessarily the atomic-
capable B-29 groups of the Strategic Air Command. 33

As a result of this weakness the Army Air Forces failed to react
aggressively when two of its unarmed C-47 transports were brought down
over Yugoslavia in August of 1946. Five airmen were killed and seven others were interned. The planes had been slightly off course on a regular run across the Alps from Vienna to Udine in northeastern Italy. Secretary of State Byrnes in Paris demanded fighter protection for transports near Yugoslavia after the President had given him a free hand.34 In reply to this request General Norstad in Washington had to point out that to engage in fighter combat "would be exposing green and untrained pilots to a superior and competent enemy."35

Assistant Secretary of War Symington proposed instead an around-the-world flight by B-29s, only to have this suggestion vetoed by the State Department. Two months later the Strategic Air Command was ordered to send a flight of six B-29s from the U.S. to Frankfurt, Germany, where they stayed 12 days. A number of sorties were made along the borders of Soviet occupied territory. Airfields in West Germany were surveyed to determine their usefulness for B-29 landings.36 The six airplanes represented a fair percentage of the operable U.S. air power that could have been sent from the United States at that time.

With air strength at such a low ebb a new threat of a Yugoslavian ground attack against Italy became a matter of concern to the Joint Chiefs of Staff. To aid Italy, the U.S. Navy could provide a task force and limited sea transport for the Army. American infantry would be required to reinforce British General Morgan in northern Italy, but only two divisions could be made available and these could not embark for some 60 days.37

It was well-known that the Soviets could overrun American occupation forces in Germany with little trouble38 if they chose to
support the Yugoslav invasion of Italy. Fortunately, the Yugoslavs did not move. A year later they made a direct threat to send 2000 troops into Trieste, but again did not act.39 Fortune and a very few atomic bombs permitted demobilization to continue.

The pell-mell demobilization that followed the surrender of Japan and left American forces so weakened was a spectacle in itself. Priority of discharge was based on total service, overseas service, combat duty and personal considerations. General Twining said that the "sentimentally conceived" system was as effective as the plague in leaving a once powerful fighting force almost helpless.40 Secretary Byrnes informed the President that the United States was "losing its bargaining power with other nations" because of the "disintegration" of the armed forces.41

"Going back to the isolationism of the 1920s and the blindness of the 1930s will be the ultimate effect" warned the New York Times.42 Soon 25,000 men were being discharged in one day. In a year the armed forces were down to one quarter of their war-time strength, and that one quarter was mostly untrained enlistees. The Army Air Forces by 1947 had decreased to one eighth of wartime strength.43 One Air Forces General said publicly "right now, we couldn't punch our way out of a wet paper bag."44 Some Navy ships could only steam eight hours a day; others, supposedly active, could not put to sea at all.45

President Truman proposed a program in October of 1945 which would have retained a small regular establishment with a larger Reserve and National Guard and a General Reserve of all who had receive military training. The program was never approved by Congress. General Spaatz has explained: "The American people at that time gave me the impres-
sion of a crowd that had been to a football game, and the game was over and everybody was going home to resume their normal habits—forgetting that wars are always a possibility; that if you let down your guard, which we did, trouble starts.\textsuperscript{46} Secretary of War Patterson wrote General MacArthur that Universal Military Training had a chance of passage in Congress, since it was supported by the press and by seventy-five percent of the people in opinion polls. MacArthur replied that the situation reminded him of his struggle as as chief of staff in the nineteen-thirties "to preserve even the remnants of an Army."\textsuperscript{47}

Six months after the war was over the United States had sold some 100 million dollars worth of aircraft for one-seventh of that amount. Three hundred planes a day were being destroyed at Kingman, Arizona. A total of seventy-five thousand planes were to be destroyed in one year. \textit{Air Force Magazine} commented in January of 1946: "Storing these planes against a possible future war would be akin to storing cannon after the Civil War for use in World War II."\textsuperscript{48} Such was the optimism of the moment. It would not last long.

Testifying before a congressional committee in 1952 General Spaatz quoted his memorandum to General Arnold of October 1945. He had warned that the rapid weakening of American forces in Europe and Asia allowed the USSR to project moves on both continents which would be "an incentive to war," and that the next war would not necessarily start by attacks against the continental United States. The Air Force, said General Spaatz, had 200 operational groups on WJ day—the most powerful military force in the world—but by the end of 1946 it had been cut to 55 sub-standard groups, with only two of them operationally effective. "You can see why Mr. Stalin felt pretty free to move around
at that time." As for the cause of all this, he said "There is enough blame so there is plenty to share all around." In mid-1946 he had instructed all commanders to stress the rate of rebuilding and not the "deplorable condition" that resulted from demobilization. Unfortunately, the means for rebuilding would not soon be made available.

In later years the runaway demobilization would come to be blamed principally on government officials who advocated reliance on nuclear weapons and abandonment of other forms of defense, although there seems to be no record or indication of such officials. There was more evidence of faith in the United Nations as a guarantor of peace. There were other causes as well, including the Army "Mutiny" of 1946, otherwise known as the "demobilization riots." These were thought by some to have been Communist inspired although there is little evidence to show open Communist support. The "riots" were blamed on the failure of the Army's Information and Education service to prepare servicemen for delays and continued obligations; on bungled public information policies; on weakness in handling the incidents and on a general lack of seriousness about them. The percentage of troops actually involved was not high, but the publicity was effective for influencing Congress, which was already responding to organized campaign by similar pressure groups. These pressure groups did not represent public opinion as indicated by polls but they were effective nevertheless.

Another reason for allowing the demobilization fever to run its course was the fear of a repetition of what happened after World War I, when practically all international commitments were abandoned. A few officials, such as Secretary of War Patterson, were prepared to buck
the tide, while most tried to stay ahead of it. Patterson wrote to
historian Douglas Freeman his own discovery, through reading military
history, that American military leaders had been censured after every
war. Although they deserved censure after the War of 1812 and the
Spanish American War, Patterson felt that in other cases the leader-
ship had been "much sounder than we had right to expect in view of the
general attitude of disparagement and neglect."\textsuperscript{53} To Robert Sherwood,
Patterson commended Allan Nevins for warning of a new movement to prove
Japan right and the United States wrong before Pearl Harbor. Patterson
remembered "the bill of goods that was sold the American people after
World War I, by histories, books, plays and Congressional investiga-
tions."\textsuperscript{54} He believed that a flood of books and plays that made "every
soldier a criminal, a coward or a pervert...counted heavily in bringing
on the extreme form of pacifism that we suffered from in the twenties
and thirties."\textsuperscript{55} The road back from isolationism had been so costly
that Patterson was devoted to avoiding the necessity for following it
again, but during his term of office he got scant encouragement.
Early in 1947 he wrote Secretary of State Byrnes that the plan in
Congress to cut one or two billion from the War Department budget
meant "travelling the old road."\textsuperscript{56}

The great demobilization was well under way before it became
obvious to all military leaders that the Communists in both Europe and
Asia would create more and more difficulties. At a meeting with his
military staff on December 3, 1945, Secretary Patterson expressed the
view that the Marines should stay in North China until all the
Japanese had been returned, since the Japanese were a source of
trouble there. He said "it is felt that if the Russians would
publicly release their lack of sympathy for the Chinese Communists a great deal of anxiety in this country would be removed." General Eisenhower then commented that shortly before he left Europe he saw a General Zhukov who told him "that Russia was determined to make friends with the United States, to raise the standard of living, and to live up to every agreement made."\(^{57}\)

Walter Rostow explains the eagerness of American leaders to get along with the Russians, even at a cost, grew out of their interest in a "lasting peace." Territorial details were believed less important because of "a fatalistic conviction that the American forces could not be kept in Eurasia beyond a few postwar years." Peace without some forbearance, if not cooperation by the Russians, seemed out of the question. So the Polish issue was dropped, finally, by Secretary Byrnes, and President Truman became interested in domestic politics. Soviet concessions on the Italian peace treaty were accepted in return for the West's acceptance of Soviet dominance in Eastern Europe. Thus Poland, for whose protection from Hitler Britain went to war in 1939, was to be dominated from the East instead. Nevertheless, says Rostow, the efforts to achieve amity with the Russians by dropping the Polish issue left American diplomats with a clear conscience about the beginning of the cold war.\(^{58}\)

To Admiral Leahy the maintenance of a clear conscience amounted to much more than just trying to be friendly. He did not believe Russian or Communist friendship could be bought. When Ambassador Hurley resigned because of what he called the "Communist sympathies" of some assistants in the State Department the Admiral sensed a feeling that Secretary Byrnes was being influenced by the assistants. He was dis-
gusted because Byrnes insisted on taking "the so-called Chinese
Communists into our camp" and because at the Moscow conference
Byrnes conceded to expediency and granted all Russian demands. 59

The Secretary of State followed this action by telephoning from
London to recommend recognition of the Rumanian government on its
oral promise to remove the dictatorship by a free election. One
month later reports from Rumania told of Russian violation of these
agreements with Byrnes. Following these reports, President Truman,
having already complained to Leahy that Yugoslavia had been recognized
without his even knowing it, expressed to the Admiral a sharp disap-
proval of the recent appeasement attitude of the Department of State.
Ambassador Harriman, returning from Russia, also told of his concern
over Byrnes' policy of trying to conciliate the Soviets. Leahy told
Harriman that the President agreed with him, but that it would be
difficult to get the Secretary of State to admit the fault. This
point in the history of the cold war was destined to cause a long
debate.

A "New Left" argument of the late 1960's insisted that fear of
the bomb influenced the Russians to give in to American pressures
until they finally resisted in the cases of Bulgaria and Rumania and
began to "defy" the bomb. 61 An equally simplified but opposite view
of these events by a military man with little regard for diplomatic
complexities is that of Air Force Major General James Hodges: "The
appeasement of wily, insatiable Joseph Stalin began at Teheran, was
continued at Yalta and tied in a neat package at Potsdam. It would
appear, from the agreements, that Stalin got everything he asked
for." 62 The debate seems to center around the question "Who was
appeasing whom?"

Secretary Byrnes did change his "appeasement policy," for in March the Admiral wrote "his recently announced attitude toward American foreign policy is so correct as to have been of superlative value if it had been announced earlier." The Admiral's pessimism was heightened when two days later General Marshall returned from China, "hopeful but not certain of a solution of China's political problems provided the Soviet government does not intervene."63

The Admiral was not alone in his criticism of the Secretary of State. Mrs. Eleanor Roosevelt wrote from the United Nations to a friend: "Secretary Byrnes seems to be afraid to decide on what he thinks is right and stand on it...we shift to conciliate and trail either Great Britain or Russia."64 There were others who gambled on the hope of Russian friendship. General Eisenhower testified in the UMT hearings of November 1945: "There is no one thing that guides the policy of Russia more than to keep friendship with the United States." According to Joseph Alsop, General Eisenhower in 1947 "was still talking eulogically about how easy it was to 'get on with Zhukov'."65

Most military leaders tended to agree with Admiral Leahy in what he considered a realistic attitude toward the Russians. His Navy colleague, Admiral Richard Connolly, thought that in 1946 there was "a general policy of withdrawing into our shell" just as we had done after World War II. He persuaded Secretary Byrnes, with British approval, to put the sixth fleet into the Mediterranean, a move which naval officers believed had great political influence on the nations of southern Europe.66 Admiral Ballentine was pleased that the
Russians got out of Azerbaijan (Northern Iran) for "unexplained" reasons. Despite our weak Army and Navy they were "scared to death of us." 67

The Admiral's remark is curious. He does not say "weak Air Force," but the Air Force was part of the Army. At that time, Naval officers did not admit that bombers or atomic bombs had great influence. In one sense their view is understandable, as we shall see. There were few bombs, and American diplomats were wary.

By May of 1946 Acheson was worried lest a Communist rising in France cause American troops there to become involved while trying to protect American property. He felt this might cause the entry of Soviet troops into France. Some Kremlin watchers were worried about a new war in Europe which might begin at any time. The new threats of war caused Western leaders to swing toward Churchill's view that the bid for Russian friendship had failed.

There has been occasional speculation in recent years as to whether President Truman knew exactly what Churchill was going to say and to imply in his notable "Iron Curtain" speech of March 1946. Admiral Leahy leaves no doubt. He, Truman and Churchill had talked about the speech for an hour and a half, some four weeks before it was made. Two nights before the address Churchill, suffering from vertigo and scattering ashes everywhere, read the manuscript to Leahy, who thought it an historic pronouncement. 68

On a visit to England during the rising crisis Admiral Leahy found Atlee "too reticent," and Churchill's vertigo worse. Of Churchill he wrote "This superlative war leader, at the age of seventy-one, by inability to adjust himself to changed world conditions and
by physical deterioration is removed from leadership." While in
England Leahy received intelligence reports of nearly one million
Russian troops near the German border. Admiral Hewitt of the United
States Navy, who was on duty in London, felt the situation would be
hopeless if the Russians attacked, since few U.S. or British troops
could be evacuated.69 On June 11, Truman, in conference with the
service chiefs, concluded that the Soviets did not want an early
war.70 This was a turning point in American confidence. It was
followed by the stiffer attitude toward Yugoslavia, the very signifi-
cant visit of the B-29s to Germany and one last effort to justify a
misplaced optimism about China. General Marshall wrote Secretary of
War Patterson on June 19 from Nanking: "I had my plane brought over
from Shanghai last night and it is standing by now to take General
Chou En-lai to Yenan in connection with the final effort to effect
a peaceful settlement to this situation."71 From this point on, hope
of cooperation by Russia was gradually replaced by the hope that
Russian expansion could be contained.

There has been speculation concerning the practical basis of
the "containment policy." Its best known architect, George Kennan,
has stated repeatedly that the policy did not call for the stationing
of troops around the Red perimeter. This is not surprising, since
not one-tenth of the troops were available which such a plan would
require. What then was expected to keep the Reds from moving wherever
they might desire? The answer has been apparent to the few who knew
the military situation, but it has not been publicly expressed or
clarified. For this reason the following is of special interest.
On June 20, 1946, General Spaatz and his political advisor, Professor Bruce Hopper, had a visitor for lunch. He was of such importance that when Hopper wrote a memorandum of the visit for Spaatz, all reference to the visitor's name and identity was omitted. The memorandum includes the following "main points of your visitor at lunch:

Any war between the U.S. and Russia would be completely an air war, if rightly conducted by the U.S.

The Soviet industrial system is especially vulnerable to strategic bombing with little exposure of civilians.

There are about ten vital industrial areas and a few transport bottlenecks in the system. An attack on these would make a long war most difficult, and might unseat the Communist Party.

Occupation of Russia would be unwise (emphasized). Any war should therefore have objectives limited to the destruction of war potential.

Since the ruling group in Russia survive on the theory that other nations are hostile, they can never permit inspection. The end of World War II found them with allies, who had to be converted to enemies in order to keep the masses united against a constant threat.

The State Department has at last come around to the idea that the Russians treat gifts as a weakness. Byrnes is now treated with more respect.

Ambassador Bedell Smith understands the problem, though his health is poor.

Scientists who recently visited Russia did us harm.
The Joint Intelligence Survey has overestimated Soviet production.

Finally, the visitor will keep General Spaatz informed as the situation evolves.

Dr. Hopper's method of keeping the visitor's identity separated from the notes was not completely successful. General Spaatz's engagement calendar, which was filed elsewhere, shows the mysterious luncheon visitor was George Kennan.

It is important to observe that this memorandum contains no suggestion of preventive war in any sense. Nothing whatever could be gained by a strategy such as that outlined in Professor Hopper's report, other than to stop or slow any otherwise victorious Russian military conquest of neighboring nations. The principal weakness of the strategy as outlined is that its principal goal is to unseat a regime, with no guarantee that the succeeding regime would be any more benevolent toward Russia's neighbors.

It is equally important to observe that the strategy outlined does not include the bombing of cities. The careful avoidance of civilian casualties insofar as possible was a necessary feature of the suggested pattern of attack. The notion that such discrimination is impossible is part of the "absolute pacifist" tradition which maintains that all war is hopelessly brutal and any attempt to ameliorate it is blasphemy--or the obverse of this attitude, which is that "force without stint or measure" is proper punishment for all nations whose leaders instigate war.

The emphasis on sparing civilians under the original containment policy was later corroborated by a member of the Air Force planning
staff who reported that the State Department Policy Planning Staff was opposed to any atomic bomb campaign against cities. He quoted Kennan: "If you drop atomic bombs on Moscow, Leningrad and the rest you will simply convince the Russians that you are barbarians trying to destroy their very society and they will rise up and wage an indeterminate guerilla warfare against you." Charles Bohlen, Kennan's friend and colleague, was always less emotional in his language but he predicted that an atomic campaign against Russian cities would have "negative psycho-social results that might endanger post-war peace for 100 years." Because of these and other considerations, the Joint Chiefs of Staff, at that time, would accept only specific industrial targeting rather than simple urban targeting; in other words, the United States Air Force tradition of the air war in Europe rather than that followed in the air attack against Japan. 72

It is clear also that the discussion between General Spaatz, George Kennan and Dr. Hopper was strictly speculative. There is no indication that Spaatz agreed with it completely at the time although Hopper appeared, in this and other contexts, to be in agreement.

Two years later, Spaatz would repeat certain important features of Kennan's theme (Chapter IX). The Air Force Commander had agreed in principle with the avoidance of city bombing, had followed that principle in Germany, and was never satisfied with the area bombing policy in Japan. Spaatz had little faith, however, in a "one-shot" campaign, always insisting that sustained operations, atomic bombs or no, would be necessary to prevent the enemy from rebuilding his forces and launching a counterattack.
Except for a gradual easing of the Russian military threat against Europe following the stiffer line adopted in the United States and the flights of the B-29s, there is no certain indication of the amount of deterrence imposed upon Stalin by the American bomb. It is reasonably certain he knew the size of the piddling stockpile, as we shall see, but he also knew that more bombs could be made. His attitude toward these weapons is revealed in a 1947 report to Spaatz by the Ambassador to Russia, Walter Bedell Smith. Smith said the head of the Russian air force was in serious disagreement with Stalin on strategic bombing and was punished for it, since Stalin thought mainly in terms of ground armies, with air forces an appendage. Very few of the Russian copies of our B-29s were being produced but there was considerable emphasis on long range rockets and guided missiles. 73 The outcome of the predictions implied in Ambassador Smith's report testified to its accuracy.

Whatever may have been Stalin's personal view of strategic bombing, the massive Russian armies near the German border continued to pose a threat to Europe. Leahy discussed with British Field Marshal Maitland Wilson a proposed joint emergency planning procedure between the Americans and the British Army on the Continent. The Admiral's interest was further aroused when the American Deputy Chief of Naval Operations returned from Europe with reports of general fears that the Russians planned war there. As the first joint British-American planning began Leahy received reports the British were frightened but had no satisfactory plans of their own.

Admiral Leahy, a student of history, compared the Russian attitude at the Paris peace conference, then in session, to that of the
Russians at the Congress of Vienna in 1813. He found them similar except for Communist ideology. Leahy hoped, despite the predictions of the experts, that an accord would yet be reached. To avoid any interference with a conciliatory spirit at the conference, the Joint Chiefs of Staff proposed an indefinite postponement of a third series of atomic tests at Bikini and the President approved.  

As always in times of crisis, extremists appeared. Admiral Leahy found William Bullitt "violently prejudiced against the Soviets" and Henry Wallace "an honest 'fellow traveller' with the Soviets." In November the American Ambassador to Russia complained that Franklin’s son, Elliott Roosevelt, was in Moscow criticizing American policies and praising Russian policies.  

Admiral Leahy advised the President that Byrnes or Wallace would have to go. Both went. The Admiral supported aid to Greece, although he could not understand Marshall’s interest in saving the Greek and Turkish governments, in view of his attitude toward China. He thought isolationism the only alternative to the Marshall plan, and believed Truman’s sense of righteousness and his courage would carry it through. He said it would make the prospect of war no worse than it was before.

The Admiral visited a Baptist church with The President and reported "the ritual was entirely strange to me." He was visited by Charles Lindbergh who asked for advice on whether he should take a public stand in opposition to Russian expansion. Lindbergh still believed his non-intervention stand before World War II was correct, and considered a new war inevitable. The Admiral did not record his reply to Lindbergh, but he did record his reaction to Wallace's
speeches in Europe. He could understand why Roosevelt dropped Wallace as Vice President. Wallace, "who was not in the war and understood little," seemed to Leahy to be mentally unbalanced.79

As tension in Europe mounted military leaders became more interested in the efficient work of the Atomic Energy Commission, but Leahy expressed to them his personal opinion, which they did not approve, that "atomic bombs should not be employed by the United States in war except in direct retaliation for their use by an enemy." On the other hand he thought any agreement for the destruction of our stock of bombs would eliminate "our one definite positive deterrent to aggressive action against us by any nation."80 Thus the Admiral, despite his definite views, was caught in the dilemma of the undecided counter-threat—the uncertain and perhaps unconvincing "deterrent"—that would plague American leaders for at least a quarter of a century. No one wanted to depend upon the bomb to stop the Russians if they moved against the West but nothing else in sight could possibly stop them.

When the Congressional committee on atomic energy asked the Joint Chiefs of Staff for an estimate of the number of atomic bombs that might be needed in war they could only answer that more would be needed than could be produced by existing facilities and raw material. The Military-Scientific evaluation board reported its view that the United States should be prepared to use atomic bombs without delay. In November of 1947, with new fears of a Russian attack in Europe, it was agreed again that the United States forces there could not offer serious resistance. Representatives of the Air Force at a meeting of the Joint Chiefs of Staff believed the only practical response was the
immediate use of atomic bombs. This was apparently the first high-level proposal of this strategy. Again the Admiral hoped atomic bombs would not be used and that the United States would not make "such a barbarous attack on non-combatants." He did not agree that with these weapons "an early and vigorous attack" would induce any powerful enemy to sue for peace.

The situation in Europe was such that some diplomats expected the Russians to withdraw from the United Nations. Former Secretary of State Byrnes' first book, Speaking Frankly, appeared at this time and the Admiral's comment on it was masterfully worded: he considered the book helpful to establish that Byrnes "made strong efforts to cooperate with Russia, followed by the conclusion that only a strong attitude can maintain peace." On the other hand his admiration for President Truman's spirited stubbornness was equally blunt. When Truman said his proposal for price controls in the United States together with aid to Europe was politically unwise, but necessary, the Admiral commented "I am completely convinced of his desire to do what he believes to be right regardless of the consequences."

Worried by the huge Red army east of Germany, their forces decimated by demobilization and hamstrung by repeated economy drives in Congress, other military leaders also continued to struggle with the problem of the atomic bomb and the role of the services in national defense. The ground forces and the Navy remained defensive, torn between accepting the bomb as a central reality and dismissing it as a sideshow. The Air Force had begun to lose its defensive attitude toward the atomic bomb after a year or so, and to plan toward a total bomb delivery system in which that powerful weapon would play more the
major role. Within the Air Force, enthusiasm for pushing science to its limits in military application showed the continuing influence of General Arnold's insatiable desire for innovation.

It has often been said that "atom bombs were first considered by the military simply as bigger blockbusters, not requiring substantial consideration of military strategy and tactics" but this period can be roughly calculated as less than a year for the Air Forces, three years for the Army and five years for the Navy. Stuart Symington, Assistant Secretary for Air, in June of 1946 was speaking publicly of the fact that atomic bombs made one-way missions profitable; of the necessity for developing guided missiles; and preaching that the surest defense is a counter offensive to neutralize to hostile attack at its source. The 1945 Horizon study by Theodore von Karman for General Arnold had emphasized rockets, pointing out that increasing the range of a V-2 rocket 30 times, which was a technical possibility, would produce a satellite. Successful defenses against rockets were also predicted. Technology, said the report, could fulfill almost any military requirement except the will to fight.

Von Karman saw the need for a master air strategist to plan and control warfare fought at global range. The ability to defend in space, said the report, was basically an Air Force responsibility which could not be divided or delegated. The Horizon report warned against too much military control of "projects, funds and facilities." In an obvious reference to General Groves and the Manhattan Project the report added "the handling of research on applications of nuclear physics by some military authorities gives an interesting example of how scientific people can be antagonized by too much command." A
major portion of the prophetic and very secret Horizon report was written and signed by a Chinese scientist, Tsien Hsue-shen, who later became head of missile development for Communist China. 84

General Arnold publicly predicted in 1946 that missiles travelling at five times V-2 speed could be developed as "true" satellites, and warned that "past engagements were opened at the greatest distance current weapons would permit." He suggested that in the future "we could well be within thirty minutes of our enemy's territory." The Rand Corporation was awarded an Air Forces contract in 1946 to investigate the possibility of using satellites for photographic reconnaissance. 85 As early as January of 1946, Colonel Neblett of the Air Force urged General Spaatz to have Air Forces research concentrate on V-2s with atomic warheads, or permit America to become as obsolescent as France or Japan in World War II. He said the Air Force was the "only component of our forces which has the elasticity of mind to accommodate itself to atomic energy as a war weapon and to pilotless aircraft as the carrier." 86

Regardless of its mental elasticity, the Air Forces of 1946, in common with all the armed services, had scarcely the means to hold itself together and operate its old equipment. The President of the Boeing Company objected to loose talk about "jet units" for aircraft power, guided missiles and push-button warfare. "It was the fashion following the end of the war that everything built in the past was completely obsolete...a piece of equipment is not obsolete until it is replaced by a production, not an experimental type article." 87

Secretary of War Patterson was especially disturbed by push-button talk, since it became one of the principal excuses for not
providing funds and forces for troops which were necessary to perform occupation duty in Germany and Japan. "I am constantly told that need for manpower is in limbo, now that a few scientists can develop and fire all the weapons that can be used in a future war" he wrote to scientist Vannevar Bush. Bush replied in his confusing way that we must be ready "for instant counterattack with overwhelming force."

This meant atomic bombs. The next war, he said, might not require invasion. Nevertheless, Bush agreed that the writings of General Arnold and Assistant Secretary of War McCloy were making the public think ahead too soon. In testimony before a Senate committee on atomic energy Bush had tried to help by saying in a big-brotherly manner that "Americans should leave long range missiles out of their thinking."

Some of the most astute thinking on the tension between past, present and future in defense policy was being done by Alexander Sachs, the economist and friend of scientists who brought Einstein and Roosevelt together on the atomic bomb project. He told Secretary Patterson that agitation for world government was as much a subterfuge as the Kellog anti-war pact ceremonies prior to World War II. The atomic bomb, he said, has "boomerang characteristics" for us because only a dictator can effect surprise with it. In a book outline dated April 1946, he used the term "limited war" in a precise manner--some four years before General Marshall is supposed to have coined it, in a vague way, about the Korean War. Sachs proposed "Exploration of probability patterns in war technology in the next war in connection both with pre-atomic, limited wars and global wars inclusive of atomic weapons." The harrassed Secretary of War promised "a careful study."
Secretary Patterson was no military reactionary, despite his insistence on trying to get the immediate tasks performed. He instituted courses in the effects of nuclear weapons so that all elements of the Army would understand what the public debate, mostly carried on in ignorance, was all about. He praised Alexander de Seversky for his writings on behalf of air power which had "helped to build and sustain the long range bomber program" so important in the recent war.90

Air power was publicly very popular. Justice Robert Jackson had learned from Albert Speer at Nuremberg that German generals rejected two new poison gases in full production because Allied air superiority could make it suicidal for Germany to begin gas warfare. Jackson concluded that if air superiority can prevent gas warfare it should prevent all warfare. General Eisenhower said Air Force discipline (often questioned before the war) had stood the test of combat and he praised airmen as "doers and zealots, impatient of frill and dogma" who had written "a new military language."91

Despite its public popularity, the Air Forces had a paucity of friends outside its own area of the Pentagon and in Congressional committees dominated by veterans of other services. General Spaatz had predicted conversion to jet aircraft "just as fast as production would permit," including jet replacements for the B-36.92 So little money was provided, however, that the conversion was just beginning at the outbreak of the Korean War more than four years later.

A senior Air Force commander said the Air Forces were thinking in terms of "push-button" warfare but "it is the professional airman's fervent hope that by the time such things become a reality...such war-
fare will have been precluded through the United Nations."\(^{93}\) Only a few advanced planners of the Air Forces were thinking so far ahead.\(^{94}\)

Since it was known, despite inadequate intelligence, that the Russians were keeping and using their old equipment from World War II, the United States Air Forces also had to maintain such old weapons as it could. Very little money for new equipment was in sight.

The only plan that could be devised for effective action in case of war was to employ a few atomic-armed B-29s at night or in bad weather, or protected as much as possible in larger formations.\(^{95}\) Such few operational plans as existed were based on reports that fissile material for nuclear weapons was, and would be, scarce as well as expensive—ineffective for a campaign unless supported and followed up by a respectable fleet of bombers carrying conventional bombs. No such fleet existed.\(^{96}\)

On the first day of 1946 Professor Hopper wrote General Spaatz that the public was weary of service rivalry. The Navy had obstructed unification of the services but "the weakness of the Navy, as recognized by the Navy, is its esoteric cult of high priesthood...Unfortunately the Air Force inherited the Army's relative indifference to world politics...the Air Force needs statesmen now. It will need them badly in the years to come." He continued "our emphasis must always be on Air Power, not Air Force; on world responsibility, not national prestige: and he proposed a slogan for the Air Forces: "Air Power is Peace Power."\(^{97}\) It turned out to be a very popular slogan.

The public had been bombarded by "intellectual particles from unthought-through articles and books by publicists and academicians" on the atomic bomb. So said Alexander Sachs the foremost non-scientist
promoter of the original atomic weapon. He could commend only a lecture by E. L. Woodward of Oxford on the political consequences of atomic energy, an article by Bertrand Russell in "Polemic" (This was before Russell again turned dogmatic pacifist) and a book on The Absolute Weapon produced by the Yale Institute of International Studies (principally the work of Bernard Brodie). Even the latter book, said Sachs, was a hurried popularization and lacked sufficient reflection as well as a proper exchange of criticism with other groups working on the subject. All of these works compared favorably with "the apocalyptic politics of the physical scientists" but Sachs thought there had as yet been "no adequate adumbration of the conduct of national defense under atomic warfare."98 Had Sachs known that Secretary Patterson, to whom he addressed these remarks, would not live to see such a work, and that none would appear until Herman Kahn's On Thermonuclear War in 1960 he would have been even more discouraged.99

Aside from distracting emotionalism, the principal difficulty about understanding the atomic problem was secrecy. Practically no one knew the true military situation, the possibilities of weapons advancement, and the potential future of nuclear weapons development all at the same time. Atomic secrets were the most sacred of all. When Atomic Energy Chairman Lilienthal presented his budget to a congressional committee in 1947, they refused to look at his figures.100 Lilienthal had called the famous "Smyth Report" on atomic bombs the "biggest security leak" of the entire program. He had done this to discredit General Grove's military security administration, but the report did contain enough detailed information to
be of great help to the Russians on matters they had not already been told.

Secretary Stimson had approved the Smyth report to forestall individual scientists who might publicize fragmentary information. Despite its revelations, the report was not useful for relating the strength of the weapon to present or future military situations or in estimating present or future quantities of weapons for planning purposes. Even the scarcity of fissionable material in the United States was not kept secret. Policies on secrecy were never consistent. Journalist William Laurence had broken the atom story in a Saturday Evening Post article, "The Atom Gives Up' in the September 7, 1940 issue. For three years afterward Military Intelligence "watched over" the magazine offices and traced down everybody who wrote in for a back number of the issue.

Attitudes toward atomic bombs were seldom entirely rational. When Journalist Daniel Lang visited Oak Ridge shortly after the war he was startled to hear that bombs were still "being made" there and that a foreign power wanted them. It would have been just as surprising if the project had been halted. In actual fact, it was just "stumbling along" on inertia. There were no long range plans. No one was in a hurry to make more bombs and production was slow. Five "fat men," or Nagasaki type bombs, were built, then the design was changed and yield was improved. But the number of bombs stored in the mountain at Sandia base near Albuquerque seems, in retrospect, amazingly small.

It was known to many that only one spare bomb had been available after Nagasaki but not that the total of four bombs had been the
product of several months production of fissionable material. This
production was not increased right away, since no one saw a need for
bombs. Lewis Strauss emphasizes that the number of atomic bombs
available in 1946 was "small indeed," General Spaatz has stated
that for the Air Forces the atomic weapons were secondary and "the
principle problem at that time obtaining new equipment." There were
"not too many atomic bombs" and the yield had not gone much beyond
the original 20 kilotons. He remembers the number of bombs avail-
able as about a dozen or so during most of his tour as Air Forces
chief. Joseph Alsop has written that "demobilization had left us
with no other serious weapon but the atomic bomb" but in 1946
"American's stock of atomic bombs was tiny--they could be counted
on the fingers of a man's hands."

It is remarkable that the atomic bombs available in 1945 and
1946 should now be considered as anything more than a limited, one-shot
counter threat, incapable of winning a war with so massive a power as
the Soviet Union. Comparison with a conservative estimate of the
nuclear stockpile of twenty years later--fifty thousand nuclear wea-
pons on hand with some twenty thousand obsolete ones in reserve--
indicates the limited significance of atomic bombs as immediately
useful over the first two years. They were called a "stockpile"--but
they could be counted on one man's fingers.

That the size of the early "stockpile," despite all the silly
secrecy surrounding it, was widely considered at the time to be
unknown to the Russians is also remarkable. Lilienthal, shortly
before his Atomic Energy Commission took over the Manhattan District
from the Army in late 1946, was briefed on the number of bombs avail-
able. He had already calculated a hypothetical number based on the amount of fissionable material that had been produced. This number turned out to be very nearly correct. 112 Not only did spies Allen Nunn May and Claus Fuchs keep the Russians informed on the rate of this production, a figure easy to come by, but Nils Bohr announced the amount in a public statement, as will later be discussed.

One basic fact was quite well understood by the American public— that it was not the military but scientists who had produced the atomic bomb. Consequently, these scientists achieved immediately the stature of Merlin at Camelot. They were influential on foreign policy as well as on technical policy. One of the most reasonable crusaders against war, Norman Cousins, summed up the simple solution of the scientist and others in a simple word: "We are all agreed that war must be 'outlawed'." War was necessarily "total" and therefore "impossible." As Robert Betchelder saw it, "such ideas were not confined to uninformed persons who did not bear the responsibility of high office. On the contrary our government's leaders based the nation's defense policy upon essentially the same presuppositions about the 'next war' as those exemplified in the scientists' exhortations." 113

Urs Schwarz has observed that "from American idealism as expressed in the League of Nations, in the Kellog-Briand pact, and in the plans for the United Nations, many of the scientists had inherited the conviction that international control of nuclear energy was essential... and that world government now was necessary, nay, inevitable." 114

The scientists were not as unique in this respect as Schwarz implies. For the moment the miracle-working scientists had the public ear, but not entirely to themselves. Other American leaders
had been influenced by the same utopian postulation as the scientists. The attitudes of the military leadership during this visionary period were unique in American history and perhaps in world history.

Admiral Leahy, a conscientious student of history and politics, was one of the few leaders who understood that the veto provision in the UN charter, demanded by both the United States and Russia as well as by some other nations, would make it impossible for that organization to effectively "outlaw" atomic bombs or to prevent war. On the 19th of April, 1946, the thoughtful Admiral recorded "Last night at midnight, the League of Nations, founded with such high hope after the first World War, formally went out of existence." The United Nations, he said, inherits the hope of avoiding war. He had already conferred with Truman and Byrnes on the "considerable public demand" that the atomic bomb be turned over to international control and had remarked that "many uninformed people" think this would prevent atomic bombs from being used in war.

Secretary of War Patterson went along with the general sentiment to say that the atomic bomb must be outlawed by all nations, but he warned that in the meantime it would be necessary to be on guard, as with other weapons. General Eisenhower outlined a plan for national defense "based on the assumption that the United Nations will rapidly become increasingly important to the maintenance of world security." He said the United States would contribute its fair share of land, sea and air units to the United Nations. General Spaatz was more definite in suggesting a commitment of up to 18 Air Force groups for possible use by the United Nations Security Council in the maintenance of peace.
The prospects for a United Nations force were considered so good that ambitious General George Kenny, Air Force commander under MacArthur in the Pacific, wanted General Marshall and General Arnold to make a commitment for him to be commander of the United Nations air forces in return for his "letting" General Spaatz take command of the Army Air Forces after the war. What happened in the United Nations Military Staff Committee, which was to work out plans for this United Nations force, has been described by Admiral John Ballentine, who joined the committee soon after World War II. Each delegation of the "big five" nations had from ten to thirty officers. All of these dawdled for six months, with nothing to be done while the Russians boycotted the meetings on the pretense of "studying" one proposal. On one occasion the Russian members demanded that each of the five nations furnish an equal size force, then demanded naval contributions from each nation which were five times the size of the China Navy. On another occasion they argued that no forces at all were needed because all was peaceful.

With Russian cooperation, the United Nations might have tried, at least, to put an end to what General Spaatz called a long list of failures to enforce peace--Manchuria in 1931, Ethiopia in 1935, Czechoslovakia in 1938. Air power in United Nations hands could, he believed, stop a war before it started, through a show of force anywhere at any time. He felt that in the remote incidents which became wars the "peace minded" nations had lacked a quick, long range striking force, but that now under Article 45 of the United Nations Charter such forces would be made available.
Air Force General Lawrence Kuter, who had commanded air transport in the Pacific, maintained that the whole war with Japan had consisted of fighting for overseas bases and said it was "clearly up to the State Department to keep our bases alive and available to American air until United Nations air is able to operate therefrom." 123

Despite obvious Russian hostility to any kind of international force, the delusion of international cooperation in such a force lingered on for many months. General Spaatz saw air power as "the new dispensation," which could be the instrument of peace under which the nation state system might eventually disappear as the free exchange of peoples and ideas became universal. 124 In 1946 former Air Forces commander General H. H. Arnold spoke of America's ideal as "the achievement of a world state" in which aggression would no longer be known. 125 Two years later he was disturbed by the Russian blockade of progress at the United Nations and admitted "we must realize Russia is out for no good but her own. Accordingly we must tie in with a federation of nations as organized in Europe, or put some 'teeth' or backbone into the United Nations." As the disillusioned wartime commander had come to realize, the former alternative was the only one that was possible.

Strange as it now seems, almost no one offered any suggestions as to how the "world state" which was so frequently recommended could be made to work if even one great power refused flatly to go along, and that was the greatest problem.

Even if Russia had made some effort at cooperation, another basic problem remained unsolved. In a speech in Washington just after the war, so honestly gloomy it was rarely quoted, Charles Lindbergh said
"few people stop to realize that a world organization may vary between the arbitrary power of a Roman State and a government based on the complete equality of man." He thought the latter would require the "high achievement" nations to accept lower power status in the "world state" than the most populous nation, which he considered unlikely.

In mid-1946, journalist Joseph Alsop wrote an article on the world strategic situation based on a secret study by Army General Staff officers in the Pentagon. The study, he said, was written by a Colonel Bonesteel (later famous as a theorist for General Maxwell Taylor) and it went from point to point toward a conclusion that sounded hopeful then, but sounds entirely hopeless now. It said that a surprise attack would be decisive, that the United States Constitution makes a surprise attack by the United States impossible, hence something called a "political defense" was necessary. Political defense meant some vague kind of world authority for protection against aggression, principally through the control of atomic weapons as recommended by the "Acheson Report," which was developed largely by Robert Oppenheimer. Alsop based his article on "a professional estimate of the military situation" because he felt very strongly that for national defense "such professional estimates are the only sound starting points. The estimate to which I refer leads to the 'one world or none' conclusion. But it does so in a hard, practical way...." A few years later Alsop himself would look back on this "hard, practical" conclusion as incredibly vague and visionary in the context of the world as it exists.
Chapter 5--Footnotes


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11. Leahy Diary, Jan. 12, 1946.


17. Admiral Blandy, article on "Naval Effects," ibid.

18. Colonel Robert S. Allen to Secretary Patterson, Nov. 12, 1946, Patterson Papers.

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21. Ibid.

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23. Ibid.


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31. Author's interview of a Rand Corporation official at the Air University, Feb. 21, 1947, Author's notes.

32. General Fairchild from General Partridge, July 15, 1946, Fairchild Papers, Air University.

33. Lt. General St. Clair Streett, Air University, October 1946. Quoted by Robert Frank Futrell in *USAF Historical Study No. 139*, Air University.

34. Leahy Diary, Aug. 22, 1946.


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47. Secretary Patterson to General MacArthur, June 25, 1947.


49. General Carl Spaatz testimony before the Preparedness Subcommittee of the Senate Armed Services Committee,Lyndon Johnson Presiding, April 22, 1952, Whitehead Papers.


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54. Secretary Patterson to Robert Sherwood, Dec. 16, 1945, Patterson Papers.

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73. General Spaatz, Memorandum on conversation with Ambassador W. B. Smith, Nov. 10, 1947, Spaatz Papers.


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89. Alexander Sachs to Secretary Patterson, Sept. 25, 1946, Patterson Papers.

90. Secretary Patterson, Memorandum to Adjutant General, Oct. 24, 1946, Patterson Papers.


94. General Carl Spaatz, Air Force Historical Documentation, May 1965, Air University.


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97. Bruce Hopper to General Spaatz, Jan. 1, 1946, Spaatz Papers.

98. Alexander Sachs to Secretary Patterson, Sept. 25, 1946, Patterson Papers.


101. Ibid., p. 135.

102. Lewis Strauss, Men and Decisions, p. 251.


105. Daniel Lang, From Hiroshima to the Moon, foreword.


108. General Carl Spaatz, Air Force Documentation.

109. General Carl Spaatz, Interview by the author, December 1967, Author's notes.


112. David Lilienthal, Journals, Vol. II, p. 120.


114. Urs Schwarz, American Strategy, p. 69.

115. Leahy Diary, Jan. 1, 1946.

116. Ibid., April 19, 1946.


120. General Ennis Whitehead to General Wolfe, November 5, 1945, Whitehead Papers.


123. General Lawrence Kuter, Statement, July 9, 1946, Kuter Papers.


Chapter VI
The Attempt to Disarm the Atom

In the early postwar years secrecy was a powerful barrier between the military men who were clinging to the past and scientists who were turning away from what seemed to be a frightening future.

Edward Teller
The Legacy of Hiroshima

In the course of their educational campaign, the scientists have found that only one tactic is dependable—-the preaching of doom....any deviations from this method are met with yawns.

Daniel Lang
From Hiroshima to the Moon

Scientists, at least in the Western World, are reputed to be among the least nationalistic of people. They are presumably stimulated in their labors by the feeling that their endeavors in the main benefit humanity, or at least are not inimical to it.

Bernard Brodie, 1945

Science is in the saddle. Science is the dictator, whether we like it or not. Science runs ahead of both politics and military affairs. Science evolves new conditions to which institutions must be adapted....let us keep our science dry.

General Carl Spaatz, 1945
The death of Dr. Slotin at Los Alamos was a macabre incident. Surrounded by unnecessary secrecy, it became one source of the many rumors that caused all things "atomic" to be considered as next to supernatural. Dr. Slotin was simply transferring cubes of uranium 235 from a small stack to a large one to show students how instruments would reveal the approach of "critical mass" and the beginning of a chain reaction. Strangely, he made a mistake, placed one cube too many on the larger pile, realized radioactivity had begun and threw himself forward to scatter the uranium and save the students behind him. He died within hours. Even his blood became radioactive.¹

Neither radioactivity nor death from its effects was new in human experience. But Dr. Slotin was fatally stricken in a laboratory devoted to the development of weapons which recently had caused the deaths of many thousands from radioactivity along. Hundreds of victims were still waiting to die, horribly, from the same cause. It was inevitable that this should have an effect not only upon scientists who helped develop the weapon but also upon American leaders and citizens who felt a responsibility for past or future policies. It is not surprising that reactions to such horrors, even from the best informed and wisest of men, were often more emotional than practical, sometimes contradictory, and usually ineffective.

Winston Churchill, a conservative, began to advocate what he came to call a "preventive crisis" which would force the Russians to accept a workable world settlement at the point of an ultimatum. Bertrand Russell, radical and pacifist, advocated the same action, and did so even more bluntly and bleakly than had Churchill.²
Both Russell and Churchill changed their views and recommendations after the Russians developed an atomic bomb, and especially after their development of a hydrogen bomb. Churchill accepted the necessity of an armed accommodation to Russia while Russell came to advocate unilateral disarmament, which would have meant virtual submission to Russia. Equally drastic shifts of attitude between the late nineteen-forties and the early nineteen-fifties were common. Nye Bevan, a British labor leader and cabinet member, came to be called an "appeaser" a few years after he talked of the need to launch a preventive war if the Soviet steel output passed twenty-five million tons a year.  

Public advocacy of preventive war was less common than its private advocacy, but neither in public nor private did it ever reach the upper levels of governmental responsibility in the United States. President Truman's comment "I certainly don't want to have to use them again, ever" was typical. Suggestions of preventive war among scientists were almost as rare as among the military, but there were notable exceptions. Dr. Harold Urey, Nobel Prize winner and physicist, was sufficiently anti-military to boast that scientists had worked on the bomb in secret for years before the military found out about it, and to say "no general ever invented a weapon, and that goes for the bow and arrow." Nevertheless he was much more anxious to drop the first bombs on a city than was General Spaatz, 4 and he became an advocate of preventive war. 5

The Alsops, who were friends and passionate defenders of nuclear scientist Robert Oppenheimer, apparently forgot about Dr. Urey when they praised Oppenheimer as
the only truly eminent American outside the armed services—so far as these reporters are aware—who was willing to discuss dispassionately the idea of preventive war to save the world from Communist tyranny. 6

Also quoted Oppenheimer as saying "we can't just sit by while a potential enemy builds up the means of our certain destruction." 7

The idea of world government, in various and vague forms, was as popular a solution to the problem of the atomic bomb as preventive war was unpopular. Dr. Edward Teller, for instance, was strongly opposed to preventive war but agreed with Dr. Urey on the need for world government. 8 Scientists were at first more outspoken in this view, but the military leaders and statesmen were not far behind, and neither was the general public. No one except a few political scientists and students of history had ever given much thought to the problems of world government and most of these maintained a skeptical reserve in the face of all the new enthusiasm. The campaign for world government proposed every degree of control from a single powerful authority, through some kind of world federation, down to mere control of atomic weapons, which appeared simple enough. Social scientist William Ogburn pointed out that atomic control would have to mean world government 9 but this meant little except to the few who had seriously considered the real problems of governmental systems.

To evangelize for the necessity of world control, physicist Louis Ridenour wrote a short play called "pilot Lights of the Apocalypse" 10 which was published in Fortune, distributed free by the Federation of American Scientists and occasionally presented in university towns with faculty members playing the roles. 11 The play depicts atomic-armed satellites, under the control of various nations,
circling the earth until an earthquake is mistaken for an atomic attack and nations destroy each other in a holocaust of misunderstanding. Physicist Joseph Rush, secretary to the Federation which distributed the play, predicted that when the news that another country had the atomic bomb was announced it would not be the end of the world but people would behave as though the end of the world were at hand.\textsuperscript{12}

The Federation of American Scientists, first called the Federation of Atomic Scientists, was organized in late 1945 to serve as a rallying point for all scientists who understood that the atomic bomb was revolutionary and overwhelming, that other nations would have it in time, and that international control of its manufacture must be set up immediately. Within a year there were twenty-five hundred members, most of them Ph.D.s under thirty-five. The organization drew considerable financial and other support from religious people, such as a Jesuit priest who often quoted an invocation from the Litany of Saints which he believed especially applicable to the atomic bomb: "A flagello terrae motus, Liberamos, Domine."\textsuperscript{13}

The Federation had scarcely begun to advocate internationalizing the atom when it felt called upon to bring about the defeat of the May-Johnson Bill, which was intended to establish supervision of nuclear weapons within the United States. They substituted the civilian oriented McMahon Act. This was the first great victory for the new organization\textsuperscript{14} and, unfortunately, the last.

Bumbling Secretary of the Army Kenneth Royall had drafted the May-Johnson Bill at the insistence of General Groves, General Manager of the Manhattan District. There was ample reason to hurry the establishment of peacetime regulation and development of nuclear energy,
but scientists who had chafed under military control during the war thought they saw in the bill an attempt to establish military dominance in peace. In the hearings of October 1945 physicist Leo Szilard testified that some scientists believed the main function of the bill was "to blast hell out of Russia before vice versa." Objecting to the secrecy which he thought military influence would impose, Szilard insisted the Smyth report had already given away half the atomic secret, and the explosion the other half. With his usual ambivalence, physicist Robert Oppenheimer testified more or less for and against the bill, saying that almost all scientists believed future safety rested on international control, but observing later "scientists are not used to being controlled." Most of the scientists testifying showed confidence that international control would be much more acceptable to them than control by the United States.\footnote{15}

The May-Johnson Bill was defeated and the McMahon Act, with lessened participation for the military in the control of atomic energy, finally passed both houses of Congress in a form which Senator McMahon himself considered satisfactory.\footnote{16} In the legislative process passing the new bill, considerable misunderstanding and some ill feeling developed over the question of military participation in the control of nuclear weapons.

Secretary of War Patterson insisted that the Administration position had been misrepresented. His predecessor, Secretary of War Henry Stimson, was the original advocate of civilian control for atomic energy and was the first to press for United Nations action to "banish atomic energy as a weapon of war." "The fact is," said Patterson, "that we have no quarrel with the scientists."\footnote{17}
Patterson maintained it was "absurd to say the May-Johnson Bill or the Vandenberg Amendment to the McMahon Act would place any control whatsoever in military hands." Both measures excluded military influence except on questions of military application "and even then the power of the military is only advisory....The leading scientists see the situation clearly, but less dependable ones have captured the publicity."\(^{18}\)

A committee against military control of atomic energy had been formed by wartime administrator Donald Nelson, a crusader against military influence. When Nelson asked former Secretary of War Stimson to serve as chairman, Stimson replied "the views of the military leaders should be represented on the board of control. My long experience with the loyal respect of American Army officers for our national principle of subordination of the military to civilian government makes me feel your fear of military domination in this problem is without foundation." Stimson also had confidence that the "patriotism and sanity of the leading scientists" would prevent any "standstill" on the issue. He fully realized "the dangers in the international field respecting this problem" but he disagreed with Nelson's view that these dangers derived from the influence of American military leaders.\(^{19}\)

Stimson's confidence in the military and the scientists turned out to be well placed. There was no "standstill," but a delay in the passage of an act for the development of atomic energy and atomic weapons had already occurred and more time was lost in reorganizing it. Some years later Congressman Sterling Cole, Chairman of the Joint Committee on Atomic Energy, explained that after World War II
the scarcity of uranium was exaggerated. Too little was done to increase the supply of fissionable material and to improve the design of atomic weapons. Some scientists insisted, after Nagasaki, in working only on the peaceful employment of nuclear energy. In sum, Congressman Cole concluded, the development of weapons was allowed by belief in "lasting peace, atomic monopoly and international control." 20

An interesting feature of the debate over the May-Johnson Bill vs. the McMahon Act is the fact that it was not a clear-cut conflict between the military and the scientists. The Navy was opposed to any War Department sponsored bill; it had objected to General Groves' domination of the entire atomic energy project. There was an attempt to reduce Groves' influence in a joint atomic agency by appointing to the agency an admiral who was senior to him. Secretary of the Navy Forrestal worked quietly with sponsors of the McMahon Act. Forrestal's assistant, Admiral Strauss, says flatly that while the War Department and the Administration had endorsed the May-Johnson Bill, the Navy and Secretary Forrestal endorsed the McMahon Act. 21

Many scientists, as General Spaatz's political advisor explained to him, had begun to show resentment of "rough-shod treatment of scientists by the Army during the war." He said the Navy, for some reason, fared better. 22 Lilienthal reported that on the Military Liaison Committee, established by the McMahon Act, the Army men were outclassed by the Navy representatives—Admirals Ofstie, Solberg and Parsons. The Chairman, Air Force General Lewis Brereton, and other Army members, did not quite know what to do with themselves. 23

While everyone gave General Groves credit for his administrative drive in pushing the Manhattan District during the war, Lilienthal and
others repeatedly complained of his unwillingness to let go after the war. Finally Secretary of the Army Royall agreed to his departure. At the same time there were many difficulties caused by the ever-troublesome physicist Leo Szilard, who proved to be just as critical of civilian direction as he had been of military direction. No one, it seemed, was more high-handed than honored scientist Vannevar Bush, who became famous for his wrong predictions as he began to talk and write after the war. Not only did he miss by some twenty years on the first Russian atomic bomb, but also, by a lesser time period, on the development missiles and other innovations. He thought, for instance, that the ram-jet would never fly. Lilienthal complained early in 1946 that Bush and Groves were making atomic weapons policy without Truman or Byrnes knowing "what the hell it is all about." The two weapon-makers thought nothing of making a secret agreement with the British without informing the State Department. As a crowning blow, Bush refused to appear for a Medal of Merit offered by President Truman, so the President refused Secretary Patterson's recommendation that he be awarded the Distinguished Service Medal.

On New Year's Day of 1946 the control of atomic energy, including weapons, was transferred to the new Atomic Energy Commission, with good feelings all around. David Lilienthal, the chairman, hoped that he could during the year "lessen the cloud of dread and fear that hangs over the world since Hiroshima." The argument over who should have actual control of finished atomic bombs was not over, since military commanders responsible for their delivery felt that the time required by formalities of transfer
could be disastrous in an emergency.\textsuperscript{30} Despite the fact that the Joint Chiefs of Staff in mid-1947 expressed satisfaction with the work of the Commission,\textsuperscript{31} there remained some dissatisfaction with Atomic Energy Commission's possession of the weapons and with the limited military influence over the types of atomic weapons produced.\textsuperscript{32} In the spring of 1948 Secretary of Defense Forrestal, against advice, again urged President Truman to permit military custody of the weapons and was rebuffed in a manner that marked the beginning of the rift between the two.\textsuperscript{33}

The scientists, with many allies, had won at least a partial victory in keeping the bombs technically out of military hands. Their efforts were inspired by the idea that to do so would gain the confidence of the Russians, and thus lead to Soviet acceptance of international inspection and control. Here they were soon proved wrong, though the events of a few years were required to prove just how wrong they were.

American political leaders had been less gullible on this point. At Potsdam, Truman and Stimson, seeing the military repression practiced by the Russians and sensing their hostility, decided that the USSR would accept no international controls.\textsuperscript{34} Nevertheless, in September of 1945, certain members of President Truman's cabinet urged that other governments, including the Soviet, be provided information on atomic weapons. The names of all who did so were officially deleted when Forrestal's diary was published, except for that of Henry Wallace.\textsuperscript{35} The deletion is understandable; unfriendly actions by the Russians had made such premature generosity embarrassing. Not until January of 1968 were all the names released. Two of the four persons
involved, Secretary of War Stimson and his deputy, Robert Patterson, were dead by 1968, and the others, acting Secretary of State Dean Acheson and physicist Vannevar Bush, are no longer active in public life.\textsuperscript{36} As late as February of 1946, at a meeting of the Service Secretaries and the Chiefs of Staff, only Secretary of the Navy Forrestal and Admiral Leahy voted against allowing a "commission" of scientists to pass atomic weapons information to foreign scientists.\textsuperscript{37}

So rapid and so severe has been the disillusionment with Communist nations, and even with the scientists of Communist nations, that overly optimistic attitudes were conveniently censored and forgotten soon after they were expressed. Some of the false hopes they represented were built on a belief that Communist scientists were to some degree as internationalist in their views as were American scientists, or that the Russians could be true to a kind of scientist's code, even as General Eisenhower relied on Marshal Zhukov's honor as a soldier. Bernard Brodie in 1945 had admitted that scientists in other nations might be different from ours "but until we are sure of that" we should encourage "attitudes which make the concealment of aggressive purposes impossible." Brodie was wise enough to recognize that acquiescence in an effective plan of inspection might require a revolution in "political and social procedures" within Russia. He was puzzled as to what kind of force could be used if inspection were resisted.\textsuperscript{38}

There were, of course, scientists who had views even more skeptical than Brodie's. A number of instances might be cited to indicate that chemists tended to be much more realistic than were physicists. Bradley Dewey, for example, wrote Secretary Patterson to challenge his views as too idealistic, Said Dewey, who was President of the
American Chemical Society:

If we are dragged into another war, we intend to play rough with every means in our power to the end that the war may be as short as possible and we the victors. This is a rough policy, but it is the only one which to me spells any hope for the future. 39

Dewey was a notable exception among scientists in the intellectual climate of the late nineteen-forties.

More representative of opinions and attitudes in the two hopeful years that followed World War II was a Board of Consultants appointed by the State Department in January of 1946 to develop a plan for controlling atomic energy internationally. The Board consisted of two well-known corporation executives, two scientists—one of whom was Robert Oppenheimer—and David Lilienthal as chairman. The Board soon produced a brilliant report which called for the internationalizing of all thorium and uranium deposits and all processing of these minerals. The mining, refining, and manufacture of atomic energy materials would be performed by an international authority, which would also "denature" the material. The denaturing would supposedly lessen the effectiveness of the fissionable material for use in weapons over a certain period of time. Plant inspection and other checks on the use of such materials would make the safeguard complete. 40 The report of this Board became known as the Acheson-Lilienthal report and was the basis for the celebrated proposal of Bernard Baruch as American delegate to the United Nations Atomic Energy Commission.

Baruch, a friend and consultant to presidents, was an old man and in some ways a rather difficult one as he steered his way between conservatives and liberals to his final proposal. He had been broad-minded enough to hire Professor D. F. Fleming, who later wrote one of
the first books blaming the United States for the Cold War, to do a study of Russian attitudes and problems. Baruch coined the term "Cold War" but was willing to grant the honor to his speech writer, Herbert Bayard Swope. Swope also wrote Baruch's speech to the United Nations which, as he informed Secretary Patterson, "made a hell of an impression." It was the biggest thing in Baruch's life, said Swope, "and in mine, too." Big as it was, nothing came of it, of course, because the Russians would not agree to anything remotely resembling an inspection.

The normally ubiquitous Oppenheimer, who was given major credit for the Acheson-Lilienthal report, refused to serve as consultant to Baruch because he thought Baruch's other consultants had little hope for agreement by the Soviets. Oppenheimer later "suffered terribly" because he had not worked with Baruch. Finally he blamed Russian rejection of the plan on Baruch's insistence that some means be provided for insuring compliance with the rules of the proposed atomic authority. Lilienthal, however, was sympathetic to Baruch's reasons for insisting the United Nations abolish the veto rule for this purpose, and on punishment powers for the proposed international atomic authority.

Wilson, said Baruch, had insisted Article Ten, which granted enforcement authority, was the heart of the original League of Nations. Had it been in effect, Mussolini could not have invaded Abyssinia and Hitler would soon have been stopped. The fatal weakness of the League, Baruch maintained, should not be repeated in the United Nations on this vital issue. When other countries represented on the United Nations Atomic Energy Commission wavered in their support of his plan,
Baruch would say "Do you want me to give the bomb to Russia?" They were frightened of Russia, especially the Europeans, and they knew "the one thing that kept Russia from overrunning Europe was American possession of the atomic bomb." 44

Historian Carroll Quigley has called the Baruch offer "extraordinary," since it offered the American monopoly, technical secrets, and weapons to an international agency, "in return for a possibly ineffective system of international inspection." Quigley reasoned that Russia was unwilling to expose her internal activities, including bomb making, to inspection. 45

Admiral Strauss suggests further that inspection would have exposed Russian work on the hydrogen bomb, which was under way at that time. The Russians must have learned from the spy Klaus Fuchs and others that the United States was not working seriously on the hydrogen bomb. 46 Strauss, who was Chairman of the Atomic Energy Commission in the early 1950s, states that the "Acheson Report" stands up well in retrospect except for the provision for "denaturing" U-235. 47 This was Oppenheimer's principal contribution to the report and one of its most important features.

In less than a year after his optimism about international atomic control, Lilienthal himself recognized the futility of negotiation with the Russians. 48 He was not surprised later to read in the Russian journal "Pravda" of March 3, 1948, a protest against "certain scientific intelligentsia" in Russia who were oblivious of the "party nature of science," and an objection to the foreign and bourgeois notion that science is a "non-party and supra-class matter." 49 General Spaatz also recognized the pointless nature of an agreement with the Russians
when Ambassador Harriman reported that all British papers endorsed the Baruch plan except the Communist *Daily Worker* which declared that the veto provision in the United Nations was "the only Soviet defense against the Anglo-American block."\(^{50}\)

While he was preparing his atomic control proposal, Baruch requested the Joint Chiefs of Staff to forward to him their views. The Chiefs agreed to answer individually. General Spaatz's reply contains comments which in retrospect appear more astute than any other comments of that period. Spaatz said

> The conventional strength of the U.S. has been reduced drastically by the hysterical pace of demobilization. The atomic bomb, because of its decisive nature, is now an essential part of our military strength. Our monopoly of the bomb, even though it is transitory, may well prove to be a critical factor in our efforts to achieve first a stabilized condition and eventually a lasting peace.

Spaatz emphasized that any step to prohibit atomic explosives in the near future would greatly reduce an existing advantage of the West, with no corresponding reduction in Russian strength. He suggested, however, that some arrangement for control would have to be reached eventually or we would have to maintain our advantage through an all-out atomic race.

Punishment for a violator would be necessary to make any control plan effective, said General Spaatz, but if such punishment had to wait for the violator actually to use the bomb, then the world catastrophe would already have occurred. The existing military situation made control without the bomb impossible, since either the United States or Russia could resist a conventional military enforcement action for a sufficient time to produce and employ atomic bombs.

"Therefore we face the incongruity that the atomic bomb is necessary to
enforce an agreement to outlaw its use."

The multi-nation feature of the control proposal was useless, in General Spaatz's opinion, since the dominant powers were the United States and Russia. He endorsed the Acheson recommendation for the effective control of raw materials and the production of atomic energy, though he recognized that "it necessarily involves some abrogation of sovereignty on the part of all nations." The conclusion in General Spaatz's letter to Baruch was prophetic:

Fear of the terrible consequences of modern warfare, and of atomic warfare in particular, plus the realization that no side can emerge victorious from an atomic struggle that would bring inevitable disaster to both, appears to offer the only chance of peace.

That is the way it has turned out, so far.51

General Spaatz has stated that although he had a hand in drafting this letter to Baruch, it was principally the work of members of his military staff. He received constant advice on such matters from Professor Bruce Hopper, and some of it was sage advice. Hopper suggested in late 1945 that Spaatz work with scientists rather than columnists, since the scientists were "the only people Congress will bow to this winter." Hopper thought Truman's liquidation of the OSS (Office of Strategic Services) showed the folly of self-advertising and was "a caveat to other institutions to keep quiet while the gods ponder what to do with atomic secrets." He complained that "we sell the heritage of effective influence for the pottage of kudos. Our institutions do it; our individuals do it."52

For the moment, in mid-1946, public attention was focused on the first atomic tests at Bikini. The scientists and administrators who had selected two cities as test targets had neglected to test what the
bomb would do to seaborne targets. The Navy hoped that the test would prove ships less vulnerable than had been supposed; other military men hoped otherwise. The results were, as usual, interpreted both ways. First reports created an impression of relative invulnerability for warships but later reports revealed the lethal hazards of radioactive spray.

An embarrassing incident of the first postwar tests, which became the subject of much speculation, was explained simply by General Spaatz: "It was disappointing that the bombardier apparently missed his mark by three times the error he had made consistently in practice. However, the poor kid had a bad case of stage fright and the jitters."

Despite the fact that the error reduced the value of the tests to a degree, Spaatz considered them successful. What he called "unfortunate" publicity had led the public to expect much greater destruction than actually occurred, but vessels within a mile of the bomb suffered damage which in war would have put them out of commission for months.53

The two bombs exploded at the first Bikini atoll tests, one in the air and one under water, were not tests of weapons design. So little progress had been made since Nagasaki that, despite the opportunity at Bikini to test an improved design, there was none worth testing. Old Nagasaki "fat man" type weapons were used.

Few Americans were disturbed by the lack of progress in weapons, for the Soviet refusal to cooperate on control had not yet dampened American optimism, and the Russians had not yet become actively hostile. Dr. Marshall Holloway, the physicist who supervised the Bikini explosions, hoped "the public would be profoundly impressed" but the public had failed to be aroused. Dr. Holloway was still thinking of
the possibility that an international strike of scientists might bring about peace but he was "not very sanguine about that notion." 54

Many scientists began to abandon the idea that atomic dangers would be avoided if the American people became "aroused" about atomic weapons. Dr. John Manley, physicist, who left making weapons to teach at Washington University in 1946, liked the academic life. He was "reading right-thinking magazines and sending occasional checks to right-thinking organizations" but he became more and more worried about the international situation and returned to Los Alamos, where his skills were especially in demand. Dr. Manley's friends might wonder if he had become "militaristic," but also they might well wonder what he thought of their "sheltered academic life." One friend would not come back, since he wanted to teach young people and develop "national scientific strength." Dr. Manley said "that, from a man of his special abilities, it is, in my opinion, sheer rationalization. He is straddling. He is not facing up to his social conscience." 55

Consciences were divided, and would become more so, although the influx of younger scientists who had made their decision at the beginning of their careers would lessen tensions. Within a few years half the Ph.D.s in physics at the Los Alamos laboratory would be under twenty-five years of age, and would be able to regard nuclear weapons with apparent equanimity. To their older colleagues, these weapons remained "a frightening and ghoulishly unexpected application of atomic energy." 56 For the remainder of the nineteen-forties, however, the older men would dominate the public scene and many of them would continue to "arouse the public" for a purpose that was not always clear.
Dr. Albert Einstein sent a letter to General Spaatz asking for a contribution to an Emergency Committee of Atomic Scientists who were collecting a one million dollar fund to educate the public against the "outmoded concept of narrow nationalism." Puzzled as to how to answer the great man, Spaatz finally learned from his staff that the letter had been sent to many people in the Armed Forces Special Weapons Project (for nuclear weapons). All the letters had been ignored because Einstein was known to be willing to sign any paper which appeared to represent the "liberals" and the group was not considered representative of working scientists, but "left wing." The "left wing" group was said by the staff to include scientists Urey, Bethe, Pauling, Szilard, Weisskopf and others.

Dr. Einstein's numerous letters extended to the flying saucer craze, which began in June of 1947 and has plagued the Air Force intermittently ever since. This fascinating psychological fleet had shown remarkably limited curiosity and had visited no other country. When a pastor in California wrote to Dr. Einstein for wisdom, he replied "Dear Sir: These people have been something. What it is I do not know and I am not curious to know." Coincidentally, just as the flying saucer sighting contest was getting under way, General Spaatz issued a then secret order to start filtering the upper stratosphere for evidence of a possible Russian nuclear explosion.

At a dinner honoring Dr. Lise Meitner, the woman scientist who contributed to the discovery of atomic energy, a director of physics research spoke in explanation of the strangely unreal controversy over control of the atomic bomb. Dr. L. R. Hafstad of John Hopkins said it was fortunate the U.S. was committed to the international control of
atomic energy but

no progress can or will be made until closer cooperation with mutual confidence between scientists and military men is achieved...the trouble is that first the military over-emphasized security and frightened the scientists. Then the scientists overstated their case and frightened the Congress. Congress turned back to the military for protection and that frightened the public.

"After all," said Dr. Hafstad, "we are hiring the military to worry about weapons." He conceded that popular insistence on working through the United Nations would "reduce for all nations the economic burden of larger military establishments."60

Attempts to achieve a better working relationship between military agencies and scientists in their employ had been going on for some time. In late 1945 Secretary of War Patterson responded to a complaint that many men in uniform had been decorated for their work on the bomb, but few civilians had been decorated.

David Lilienthal, the Atomic Energy Commission chairman who worked well with scientists, also made a special effort to understand their attitudes. He felt that men could work to develop force and destructive power and yet retain, as he did, "a spiritual repugnance and distaste for force and military matters." Otherwise, Lilienthal felt, such men as himself, by running away from the problem, would "leave the field to the adherents of force and military power." He recognized that at a time when no one else could understand, "the scientists were driven forward by a notion that their vehemence could effect political changes" and assume that the "amount of change toward supernational government was in direct proportion to the vehemence."61
Lilienthal was somewhat disillusioned to discover "how political reasons motivate scientists and savants, though they would be surprised if you pointed it out to them, and probably deny it. Wishful thinking...is no monopoly of politicos or ordinary men." Having fought hard for civilian control of atomic matters, he was disappointed that often no one except conscientiously conservation Senator Burke Hickenlooper attended his appearances before the Joint Committee on Atomic Energy. No members except Senator Hickenlooper had even looked at the quarterly reports sent to them by the Commission, much less read them.  

The preoccupation with physical science as the dominant force in modern society was more pronounced in the late forties than would be the case later. Lilienthal could then say

chances in human institutions are not affected by social scientists at all. They merely record changes that have occurred, or predict ones to come, or analyze the facts, etc. The changes in one case are affected by the scientists, in the other by the people, and not by the social scientists.  

Perhaps Lilienthal and others were left stranded in the non-physical area by the ascendency of such humanists as Robert Hutchins, then Chancellor of the University of Chicago. Hutchins' magazine article on the social consequences of atomic energy amazed Lilienthal. "Such poor taste, in its tone, and so shockingly wrong in facts and inference." With bland disregard for reality, Hutchins predicted quick and revolutionary benefits from atomic energy, including immediate cures for most human ailments, and warned that only world government could prevent an atomic war within five years. "He seems to like to build up logical oversimplifications as a college senior
might. Russia, for example. There is no secret: there is no defense"—hence the United States must do nothing at all that might cause Russia to attack with the bombs she soon would have. "His simple assumptions and his notion we are dealing with fixed factors reminded me more of a college debate than a serious discussion among men who have decisions to make."64

A critical comment by Alexander Sachs, the non-scientist who helped begin the atomic bomb, could apply to other learned men as well: "on the subject of politics and diplomacy precipitated by the atomic bomb, we have alas, found that in America, Britain and Canada, there are some scientists who are as naively unlettered as the average clientele of the Gallup polls."65

On the other hand journalist Daniel Lang found scientists quite capable of self-criticism. "A few are astonished at their power, which daily enables them to give orders to sizable groups of men, including Army and Navy brass. 'They're big time operators' a recently ordained Ph.D. explained, 'but some of them aren't the physicists they used to be. Los Alamos is their Hollywood'."66 Pioneer nuclear physicist Eugene Wigner mused "I think the scientist faces the danger of affluence...freed of the worry of tomorrow. This naturally arouses in him the desire to have influence. This is something foreign to the scientist, but apparently not entirely foreign."67 It is not foreign any longer, and there may be no reason why it should be.

The idea of a "guilt complex" supposedly applicable to nuclear physicists and their collaborators was dramatized most notably by Oppenheimer, but soon began to fade with the Russian explosions and
with increasing recognition that other countries, too, were on the way to the bomb. Secret wartime agreements with the British, which did not come to light until years after the war, revealed how dependent the United States had been upon British cooperation and how far ahead their research had advanced. The Germans were less than five years behind by 1944. Near the end of the war a U.S. bomb destroyed a Uranium 235 test site and equipment for work on nuclear energy in Japan. Obviously, the American bomb was only a few years ahead of other nation's efforts.

In any event, as Organic Chemist Lord Todd has observed, nuclear weapons, fatal to civilization as they may prove to be, are not the only threats to it. "We use a lot of ink on the dangers of nuclear weapons," said Lord Todd, "but you must realize the time may not be far off when we may be able deliberately to alter living systems."

The great campaign to control the atom by international authority failed completely, despite the fact that its proponents and most of the American public were convinced that only immediate success of the effort could save mankind from an early disaster that would destroy modern civilization.

Joseph Alsop, a uniquely qualified journalist, worked with most of the principals in the first inspired attempt to control the atomic threat by agreement. In an unpublished manuscript of 1953, he summed up the story and its aftermath better than anyone before or since. He recalled the first year after Nagasaki as

a period of idealism which seems fatuous in retrospect, in which atomic energy was to be universally controlled for the benefit of mankind. One recalls these dead hopes dimly, from the years which seem already so long long past. One recalls how the Acheson-Lilienthal atomic
control plan was rapturously acclaimed, and introduced into the UN by old Bernard Baruch with the solemn warning: 'We meet to decide between the quick and the dead.' The plan was promptly vetoed by the Russians and has been long since forgotten.
Chapter VI

The Attempt to Disarm the Atom


2. Joseph Alsop to Martin Sommers, Dec. 7, 1948. Alsop summarizes the views of Churchill from his public statements of the period. Bertrand Russell's preventive war advocacy was expressed best in an article for the magazine Horizon, reprinted in Martin Grodzins and Eugene Rabinowitz, The Atomic Age, p. 106. Russell's article was characterized by Joseph Alsop as one which would make "a large portion of Saturday Evening Post readers commit suicide."

3. Joseph Alsop to Martin Sommers, Sept. 28, 1957. Alsop was referring principally to a statement by Louis Joxe, a French diplomat who was Charles Bohlen's "favorite colleague" in Moscow.


11. Daniel Lang, From Hiroshima to the Moon, p. 64.

12. Ibid., p. 64.

13. Ibid., pp. 55-59.


17. Secretary Patterson to former Secretary Stimson, Mar. 18, 1946, Patterson Papers.

18. Secretary Patterson to former Secretary Stimson, March 2, 1946, Patterson Papers.

19. Former Secretary of War Stimson to Donald Nelson, March 28, 1946, Patterson Papers.


22. Bruce Hopper to General Spaatz, April 23, 1946, Spaatz Papers.


25. Ibid., p. 138, 599.


28. President Truman to Secretary of War Patterson, July 22, 1946, Patterson Papers.


35. Lewis Strauss, Men and Decisions, p. 159.
39. Bradley Dewey to Secretary Patterson, Oct. 8, 1946, Patterson Papers.
40. Daniel Lang, From Hiroshima to the Moon, pp. 66-81.
42. H. B. Swope to Secretary Patterson, June 17 and June 21, 1946, Patterson Papers.
44. Ibid., p. 131.
45. Carroll Quigley, Tragedy and Hope, p. 895.
46. Lewis Strauss, Men and Decisions, p. 354.
47. Ibid., p. 272.
49. Ibid., p. 326.
50. Ambassador Harriman to the Secretary of State, June 17, 1946, Kuter Papers.
51. General Carl Spaatz to Bernard Baruch (1946), undated copy, Spaatz Papers.
52. Dr. Bruce Hopper, Memorandum to General Spaatz, Oct. 4, 1945, Spaatz Papers.
54. Daniel Lang, Hiroshima to the Moon, p. 138.
55. Ibid., p. 137.
56. Ibid., p. 219. The quotation is from physicist Samuel Goudsmit.
57. Dr. Einstein to General Spaatz, June 9, 1947, Spaatz Papers.
58. Daniel Lang, From Hiroshima to the Moon, p. 342.

60. Dr. L. R. Hafstad, Outline of speech for March 20, 1946, sent to General Spaatz, Spaatz Papers.


62. Ibid., pp. 229, 461.

63. Ibid., p. 295.

64. Ibid., pp. 261, 268.

65. Alexander Sachs to Secretary Patterson, Sept. 25, 1946, Patterson Papers.

66. Daniel Lang, Hiroshima to the Moon, p. 136.


70. Arthur Compton, Report to Secretary Patterson, March 1947, Patterson Papers.


Chapter VII
Military Unity is Prevented by Law

The struggle over unification "was a typically messy, subtle affair, fully consonant with the nation's suspicion of the effective concentration of power."

Walter W. Rostow

When the Chief of Staff of the Army was established in 1903 predictions were freely made that the Chief of Staff would be the man on horseback that would trample on the liberties of everyone in the country and would ride to power.

Robert Patterson
Secretary of War

Suddenly it seemed that everybody who happened to wear one type of uniform had a particular conviction and someone else had another. There developed therefore a fight before the public as an Army and Navy fight.

General Dwight Eisenhower

This internal division among the military men both presaged and set the pattern for future civil-military relations, in which civilian actors would take advantage of disagreements among the military and, by picking and choosing which of the different service positions to ally with, remain free to determine themselves the content of military policies.

Demetrius Caraley, in The Politics of Military Unification
The struggle to unify the armed services of the United States after World War II was an extension of the century-long effort of the Army to unify itself internally. This effort had gained some headway in the decade following World War I, only to receive another setback when the rise of air power began to split the Service. As World War II progressed the penalties of service separation became so obvious that civil and military leaders began a campaign to bring all military specialties into a single organization.

Secretary of War Henry Stimson and his successor, Robert Patterson, participated in the proposal for unification that began in the Army's Woodrum Committee on Post War Policy in 1944. A committee of the Joint Chiefs of Staff conducted a poll at that time which found all Army leaders and half the Navy leaders favoring a single military department with Army, Navy and Air branches. Shortly after the end of the war, the Senate Military Affairs Committee began to hold hearings on unification bills while there was still considerable public interest in military matters.

Accounts of Japanese Army-Navy conflicts serious enough to contribute to that country's defeat helped maintain American interest in unification. Dr. Karl Compton reported to the Secretary of War that scientists had been neglected and distrusted by the Japanese military, and also that the Japanese military had not trusted each other. One Japanese scientist told Compton "a general and an admiral would not shake hands even if that would win the war....Technically the Navy was more advanced. Politically the Army was in the driver's seat." A Japanese writer on "The Lost War," Masuo Kato, reported interservice squabbles over materials and assignment of conquered areas, disputes
over campaign planning and constant jockeying for position such as would, according to one American reviewer, "convince anyone but an Annapolis graduate" of the advantages of unification.³

During the war General Marshall had predicted that the Joint Chiefs of Staff would not function effectively as a peacetime organization because each service would return to its old habits and traditions. Secretary Patterson in early 1946 said Marshall's prediction had already been borne out. He could cite instances of a lack of congeniality between even the civilian Secretaries of the services.⁴ Air Force General Lawrence Kuter reminded Army General Albert Wedemeyer that "our military policies are often compromises between the services rather than simple decisions based on the realities of the situation... service traditions, loyalties and jealousies often carry more influence than the intelligence estimates in the determination of our military forces and strategy."⁵ Historian Carroll Quigley maintains that the Joint Chiefs of Staff were too busy fighting each other after the war to provide the President much help on a new type of strategy for the postwar period.⁶

Historians and military men alike have deplored the double campaign in the Pacific during World War II. Failure to resolve differences between Army and Navy proposals finally led the Britian-American Combined Chiefs of Staff at the Quadrant Conference in Quebec in August of 1943 to authorize two strategies for the war against Japan. One operation was an island-hopping expedition, the Army-MacArthur plan, along the New Guinea-Philippines line to the China coast. The other operation was a Navy-amphibious drive supported by carrier aircraft, the Navy-Joint Strategic Survey Committee plan,
across the central Pacific toward China coast airbases. Early in the war Air Forces Commander General H. H. Arnold visited the Pacific to plan for the long range bombing offensive and found he would have to retain personal command of the B-29 force: "There was nothing else I could do, with no unity of command in the Pacific."\(^7\)

Demetrios Caraley, a thorough student of the unification problem, has written that after the development of the "ultimate weapon," the atomic bomb, it became "unthinkable" that the organization responsible for its delivery should remain subject to the Army or the Navy.\(^9\) This view was not held by partisans of these services, since each hoped to control atomic bombs for purposes of its own at some future date. Army and Army Air Force officers did agree on a view expressed by General Spaatz when he commented on the necessity for all the services to adapt to a science-dominated strategy: "The struggle is intensified by the fact that we have three services and three careers. If all the services were one service in one uniform, things would resolve themselves much more simply."\(^10\)

Air Force leaders Spaatz and Arnold were as much, if not more, concerned with establishing an independent Air Force than with unification, but they jointed forces with prestigious Army leaders Marshall and Eisenhower to achieve both goals. The goal of the Army leaders was not only to unify planning and strategy but to avoid a repetition after World War II of earlier defeats administered by the "glamorous" Navy and its industrial supporters in battles for Congressional appropriations.

In 1939 the Navy had received more money for just one battleship than the Army had received for all weapons. When Marshall became
Chief of Staff in the summer of 1939, the Army had only 200 effective combat planes, could field not one division on short notice, had only 93 mortars and less than 200,000 men. Throughout the twenties and thirties the Navy, as the first line of defense, had been the favorite service of Congress.  

Whether or not it was the fault of the Navy or of the Congress, the Army had precious few resources to allocate to its young and ambitious air branch in the nineteen-thirties. From 1925 to 1938 the total appropriations made available for Army Air Forces averaged less than 35 million dollars a year. The largest amount for air forces research before World War II was six million in one year, with the amount decreasing in the three years prior to World War II, and dropping lower in 1939 than it had been in 1932. In 1938 there were just enough funds to develop one training type airplane.  

The Army General Staff, in General Spaatz's view, had suppressed the Air Force until it was inferior to the leading air forces of Europe, and perhaps even to that of Japan in 1939. Some three years prior to World War II, when he was commanding B-17 bombers on the East Coast, Spaatz was called in by Army Chief of Staff Malin Craig and told not to fly more than 100 miles out from shore, because of "pressure from the Navy." Air Corps Brigadier General Frank Andrews had been relieved of his post as commander of General Headquarters Air Force and sent to a distant post as a Lieutenant Colonel because he had opposed an Army decision against full utilization of the new B-17 bomber. General Elmer Adler, an Air Force technician, said that between the wars "it seemed that our worst enemies were the Army and Navy, who were both opposed to all the things the Air Force was trying
to do...the Army was willing to accept us only as an observation group, giving them the eyes to use their own weapons. The Navy was greatly opposed to any idea of the Air Corps going beyond the shores of the United States.\textsuperscript{13}

The B-29 long range bomber, which was really a "simple system," was developed much more slowly than desirable but after World War II the situation began to improve. The Air Force, along with the other services, was nevertheless hampered by poorly administered joint boards which could not carry out their own recommendations. Even with the help of Assistant Secretary for Air Robert Lovett, who was given more credit for Air Forces autonomy than any other civilian, there were many penalties resulting from dependence on the Army command. General Arnold, on his retirement, had asked General Spaatz to remain on duty as commander of the Army Air Forces until independence was achieved. After it seemed the unification plan had been blocked indefinitely, General Spaatz warned a congressional committee "the controversy will be continued ad infinitum until the Air Force finally reaches its proper stature."

When the tide turned and it appeared some form of unification might succeed, Navy partisans in Congress tried to separate the Air Force from the Army position on unification by introducing bills for a separate Air Force and a separate Air Force Academy. General Spaatz and other Air Force officials remained loyal to the Army leaders and to the president by holding out for unification rather than mere separation from the Army. At the beginning of the debate, General Spaatz had asked Admiral Arthur Radford to join in a fight for one American air force, but the Admiral had said, "you take care of the
Army, we'll take care of the Navy." When it finally became obvious the Army Air Forces would achieve independence, Admiral Radford invited General Spaatz to discuss again a single air force, but it was too late. In 1944 Admirals Nimitz, Halsey, Kinkaid, Sherman and others "had endorsed unification in principle before the Richardson committee." Later this testimony was repudiated because, in the words of Admiral Nimitz, it was not based on "adequate study." Admiral Ernest King, wartime Chief of Naval operations, was more consistent. British Air Marshal Slessor wrote that Admiral King "suffered from an almost pathological suspicion of anything in the form of an autonomous Air Force." Secretary of the Navy Forrestal was almost equally consistent. He had begun to organize resistance to unification in 1944. When Truman replaced Roosevelt as President, Forrestal increased his efforts, for Truman as Senator had written a magazine article entitled "Our Armed Forces Must Be Unified." Two months before the end of World War II, Forrestal and Admiral Leahy agreed that a single department of defense would be "detrimental to the sea defenses." By February of 1946, President Truman was asking Admiral Leahy to endeavor to stop public criticism by Naval officers of his unification plan. The endeavor, if any, was a failure. By April Admiral Leahy was telling the President that his "merger bill" would give "dangerous power" to one military man. A week later the President partially capitulated to the apparent failure of the bill in Congress and asked Secretary of the Navy Forrestal to present a satisfactory suggestion. Truman was willing to accept any compromise agreeable to the Navy if it established a single cabinet officer for national defense.
Secretary of War Robert Patterson had tried to meet with Secretary Forrestal but had been refused an appointment. Forrestal sent a representative, Ferdinand Eberstadt, who agreed that acrimonious public debate should be ended but proposed a plan for three departments which Patterson could not accept since it would still mean three separate budgets competing in Congress. Patterson wrote to his predecessor, Stimson, "unfortunately, in the fall of last year, the Navy made it a matter of Navy loyalty to oppose the establishment of a single department. I am certain, though I cannot prove it, that this was the result of a decision by Admiral King."\(^{20}\)

At a meeting of the War Department Council after a statement of Admiral King's views, supposedly confidential, had been released to the press, Assistant Secretary Robert Lovett insisted Eisenhower's and Arnold's statement should be released also. It appeared the Navy proposed "to break security classification whenever convenient."\(^{21}\) At a meeting with Army and Navy leaders President Truman stated that military unification was the most important of all his problems. Of the Navy officers, only Admiral Nimitz was not hostile, while Admiral Radford attacked the Air Force openly. Nimitz alone joined the Army officers present in pledging support for the President's ultimate decision.\(^{22}\) In August of 1946 General Spaatz wrote General Arnold that the unification bill had been expected to pass on the floor of the Congress, but Committee opposition was too strong to permit a vote. He said only overwhelming public demand or a change of Committee composition could pass it in the next session. He thought the Air Force should continue to support a single department in order to maintain War Department support, and should ask for a separate air force only as a last resort.\(^{23}\)
There was increased public demand, but it was not decisive. Publisher Henry Luce visited Army and Navy leaders in late 1946 and was impressed by General MacArthur's argument that the current compromise bill achieved not nearly enough unification. He was unimpressed by two Admirals who advanced all the old "illogical, childish arguments." Luce ordered an all-out campaign to promote unification. The Soviet magazine "Izvestia," on the other hand, opposed the unification of United States forces as "incompatible with international cooperation and general peace." This was on May 14, 1947. The Soviet military forces had been placed under unified control on March 22, 1947.

The log jam in Congress was actually broken in 1947 by the death of a committee chairman which led to a shift of committee assignments. A Navy supporter who had blocked unification legislation was reassigned. This enabled his successor to bring the unification bill to a vote. On the floor the measure had little trouble.

Demetrios Caraley explains that pro-Navy or pro-Army attitudes commonly developed when senators or representatives enjoyed long-term and gratifying relationships with one service through committee work, through service experience, or through a predominance of one service's installations in the home district. Navy supporters, outnumbered, had to depend on blocking the Administration sponsored legislation in committee, a tactic which failed from unpredictable causes.

The compromise bill which finally passed satisfied few. It provided no single department, but did provide a Secretary of Defense to preside over "The National Military Establishment." No "Department of Defense" was created. The new Secretary's powers were limited and his
staff limited even more. As Caraley expressed it, "in the unification conflict, the ground Army clearly suffered a defeat in that none of its original objectives were achieved." Naval aviators, he said, should have understood that preventing a separate Air Force was impossible but "in the expression of their grievances before a congressional committee probably found sufficient emotional benefit to justify the costs incurred." 25

Military historian Marshall Andrews perhaps exaggerated the Army's defeat when he recorded that "The Army, under Dwight D. Eisenhower as Chief of Staff, was foremost in seeking unification of the services after World War II. In order to achieve this end, it compromised on every point." Failure of Universal Military Training, said Marshall, left the Army without a policy for the future. All the services were left without unified policy guidance because Congress "would not agree to a single General Staff for all the services which the Army had advocated from the beginning." Secretary Patterson predicted "the whole messy uproar will continue until there is a single Chief of Staff and a single department in which the services are completely merged." Equally consistent was General Spaatz, who had achieved his basic goal in a separate air force under the unification act but continued to insist that "the ultimate solution" must be a single chief of staff and the free interservice transfer of officers. 26

A month before the final bill was passed, General Spaatz was approached by some senior Naval officers "as to whether they could join with us now. Well, it was too late. The agreements had all been made, cleared by the President, and we could do nothing about it. They themselves wrote it in the bill that Naval officers could not transfer
to the Air Force. The bill provided that transfer to the Air Force from the Army was to be permitted for two years. The Secretary of the Air Staff arranged for the transfer to the Air Force of some two dozen senior Army officers whose skills were scarce in the Air Force and were not needed in the Army. Unfortunately General Omar Bradley, after the transfers had been pushed through the hierarchy of each service, cancelled them on the last day of his term as Army Chief of Staff with the words "the Army might need these men at some time in the future." On the following day General Bradley assumed the non-partisan office of Chairman of the Joint Chiefs of Staff.

Despite some general disappointment because the Navy had blocked truly effective unification, the Air Force was happy to celebrate its independence. General Ennis Whitehead exulted guardedly "At last we're free, under public law 253," even though he heard from General Arnold that "the Navy is most reluctant to accept the Air Force as a partner and resents our being there." Whitehead praised General Arnold's work, for "there never would have been an Air Force except for you. You sold General Marshall and Mr. Truman. It certainly required all the prestige and power of the President to bring that legislation to a vote." 

The "new" Air Force continued to keep up with progress by commissioning two-thirds as many Negroes as all other military agencies combined. An equally serious responsibility, in the minds of some people, resulted from the "flying saucer" sightings which began just as the Air Force became independent. This mixture of fakery and bewildered sincerity would plague the Air Force for years. "Everyone agreed that it was up to the Air Force, as the custodian of the
American welkin, to explain the flying objects and, if necessary, to repel them.\textsuperscript{31}

General Eisenhower, who did not get the single General Staff or the single department he had believed necessary, also failed to get the one service academy he thought advisable. He believed "nothing had contributed so much to service jealousy and separation as the initial rivalry engendered in cadets at the Naval and Military Academies." Ground force General Jacob Devers got no support at all for his project to obtain an Assistant Secretary for Ground Forces, which he said were suffering in comparison with the Air Force.\textsuperscript{32}

Meanwhile the old confusions were continuing. Nearly a year after the end of World War II, in which an enemy while under attack had produced brilliantly conceived guided missiles, no successful guided missiles had yet been produced in the United States and none were in prospect. There remained much basic work to be done on missiles and all work was "very slow" because of a dispersal of responsibility among the services.\textsuperscript{33} No clear delineation of responsibility among three services was possible. There was no possibility of creating an organization which could develop missiles as effectively as a single service could have done it.

Lack of guidance and coordination in the most dangerous of areas, atomic weapons, was equally striking. Lewis Strauss discovered in March of 1947 that neither of the service secretaries knew anything about the atomic weapons stockpile.\textsuperscript{34} Thomas Finletter, Chairman of the President's Air Policy Commission, thought the five members of his Commission ought to learn something of the war plan. President Truman said, "we'll get that war plan for you right away." General
Eisenhower produced briefing officers. After listening to a long and rambling document which the Commission members had to admit they could not understand, General Eisenhower said to the meeting: "these five civilian gentlemen who are here are just patriotic American citizens trying to do something they've been asked to do by the President. I think we really owe it to them to tell them that there is no war plan."\textsuperscript{35}

While American officials were distracted by the unification struggle, the world situation grew worse. In June of 1946, defense chiefs began to reveal second thoughts about what to expect from Stalin. To a group of women writers General Eisenhower admitted worry over the beginning of starvation in Germany. The Potsdam agreement to treat the country as an economic unit had been ignored by the Russians. The Soviets also had refused to complete the Austrian and Italian peace treaties. Secretary Patterson added that refusal of the Russians to discuss the removal of occupation forces in Austria created additional occupation burdens for all, while their schedules for troop withdrawals from Manchuria favored the Communist forces there so that civil war in China had been made possible despite all agreements. He said ruefully: "We now know that we were overoptimistic in estimating the world situation."\textsuperscript{40}

The correction of overoptimism among officials outside the defense structure was another matter, and it would not soon be accomplished. The public was worried, as the polls, previously cited, had shown. But the Congress was in an economy mood, as far as national defense was concerned. A principal argument advanced on behalf of unification of the services was the claim that it would save money. The armed strength
of the United States continued to decline until in numbers--mostly trainees--it was in April of 1947 less than ten percent of the strength two years earlier. Despite the legend that strategic air power was emphasized during this period, the Air Force that had flown one thousand strategic bombers over a target in 1945 could muster less than fifty for a maneuver in 1947. 37

By mid-1947 the Congress, as seen by Joseph Alsop, had shown "a strong back to Harding inclination." Despite this development "the calculation of what will happen to us if Western Europe falls within the Communist sphere is the mainspring of the United States policy." Stalin had insulted France's Prime Minister Bidault in Moscow and France was at last definitely pro-West, but without much strength. Stewart Alsop talked with strategic planners and returned "green around the gills and in need of smelling salts....The strategic meaning to us of a Communist dominated Europe, and the steps we would be forced to take to achieve a minimum degree of national security" he found terrifying." 38

It was against this disturbing background that the long struggle occurred to prevent even the slightest centralization of planning, budgeting and supervision for the armed services. It was truly a "struggle of bureaucratic politics and of men--not of military ideas." 39 As Walter Millis saw it, the unification battle "delayed the nation for a year or two in grappling with the already dire state of world affairs." Along with other writers of Navy background and orientation such as Hanson Baldwin and David Lawrence, Missis supported Secretary Forrestal and the Navy in their last ditch struggle to block even the token unification which was achieved. He wrote some
two years later that Forrestal's "solution" had "stood the test of
time and events." This interpretation which was specifically disputed
by Forrestal's biographer, Arnold Rogow, was profoundly contradicted
by Forrestal himself.

In addition to the national loss involved in the unification dis-
pute, there were personal difficulties for the principal figures, but
none so tragic as in the case of Secretary of the Navy Forrestal who
was appointed the first Secretary of Defense. Truman's respect for
sincere opposition, combined with political sagacity, led him to
select Forrestal for the job. Forrestal himself had said, during the
controversy, "if it had been anyone else but Mr. Truman, I think I
would have been fired long ago."41

Admiral Leahy, who had opposed the unification measure, could
change his mind after its passage and tell the Hoover Commission on
governmental reorganization that the National Security Act of 1947
would, "in time," improve the efficiency and economy of national de-
fense. Forrestal himself had a much greater problem resulting from
his own change of heart. Military analyst Hanson Baldwin said the
position of the Secretary of Defense was fashioned in Forrestal's
"own image."42 He had to try to make effective an office whose
weaknesses he had himself demanded. It was characteristic of the man
that he accepted the blame.43

A man who knew the situation well, Thomas Finletter, explained it:
"The Secretary of Defense was a powerful man, a very powerful extra-
ordinarily able man, Jim Forrestal. But he had practically no
staff....He dealt with the services and their secretaries." Having
seen to it that the Secretary of Defense had no power over the Service
Secretaries, Forrestal was soon defied by them as they competed with each other and he "lost face" for failing to "enforce unification."

He felt himself a double failure when, by his own admission, he failed to unify the Services under his own terms. To more than one friend or aide he confessed that it was his fault the Secretary of Defense lacked power to compel unified policies among the Services. This defect, he realized, would have to be rectified by amending the National Security Act. The first amendments, worked out by Secretary Forrestal, were passed after his suicide. Other amendments granting more power would follow until as often happens where weakness has been cultivated, an excess of power would eventually appear. Meanwhile, as both sides in the unification controversy agreed, those responsible for the nation's defense in a crucial period had lost much valuable time.
Chapter VII--Footnotes

1. Secretary Patterson to Henry Stimson, April 22, 1946, Patterson Papers.

2. Dr. Karl Compton to the Secretary of War, Japan trip report, March 1947, Patterson Papers.

3. Stuart Symington to Secretary Patterson, quoting F. S. Marquardt on The Lost War, by Masuo Kato, Undated, Patterson Papers.

4. Secretary Patterson to Dr. Vannevar Bush, April 23, 1946, Patterson Papers.

5. General Lawrence Kuter to General Albert Wedemeyer, January 8, 1952, Kuter Papers.

6. Carroll Quigley, Tragedy and Hope, p. 909.

7. Robert Frank Futrell, USAF Historical Study 139, Unpublished; see also Urs Schwarz, American Strategy, p. 52.


18. Ibid., Feb. 8, 1946.

19. Ibid., April 11, 1946, April 17, 1946.

20. Secretary Patterson to Henry Stimson, April 22, 1946, Patterson Papers.


27. General Spaatz to the Air Board, January 7, 1948, Spaatz Papers.

28. Author's notes. (He was Assistant Secretary of the Air staff at the time.)


30. General Spaatz, Memorandum to Howard Peterson, Aug. 1946, Spaatz Papers. Marcus Ray, Civilian Aide to the Secretary of War, suggested to Peterson (Assistant Secretary of War), on August 2, 1946, that more Negro Regular Officers should be selected and that Colonels Davis and Parrish should be requested to submit recommendations.

31. Daniel Lang, Hiroshima to the Moon, p. 32.


34. Lewis Strauss, Men and Decisions, p. 264.


43. Leahy Diary, June 13, 1946; Hiroshima Plus 20, p. 244.

Chapter VIII

Military Leaders Debate the Bomb

As in most other countries, the military in the Soviet Union is not a monolithic establishment but is fragmented by different service orientations.

Michael Gehlen

The bomb has rendered precedent and historical analogy largely absurd....The appeal to pre-atomic experience can be taken only when it can be maintained that the experience has not been invalidated by the bomb.

Richard Rovere

The call for preparedness was heeded no more in 1947 than it had been in 1937. And in 1947, as earlier, it was our weakness which invited aggression.

Bernard Baruch

In the winter of 1947-48, the Soviet Union began to reveal its aggressive designs on Western Europe. According to unofficial reports reaching the U.S. State Department late in 1947, the Soviet general staff sought permission to push troops straight into Western Europe, thus preempting with military force before Marshall plan aid could become effective. As the story was told, however, the Politburo overruled the Red Army and issued orders for internal Communist strikes and revolts throughout Western Europe. The organization for revolution was activated in
December 1947, and, after an agonizing week of strikes
and disorder, the essential structure of European govern-
ments help up.

Robert Frank Futrell, based
on a talk by Adolph Berle,
October 8, 1952
Air University

Two days before Dean Acheson left the State Department in mid-
1947 he advised David Lilienthal not to publicize the expansion of
plutonium production since it might frighten the American people.
Acheson expected the Russians would take Czechoslovakia but thought
they would not try for France for fear of losing a civil war there to
de Gaulle. He thought the increased plutonium would impress the
Russians more if little was said. Lilienthal was afraid that if the
Air Force found out about the expansion at the Hanford plant "those
publicity-mad fellows will have it all over the press in no time." In
the same spirit of caution atomic tests in the Pacific were postponed
in order not to appear "threatening." The Truman cabinet, however, had
been unanimous in support of Acheson's proposal to aid Greece and
Turkey. 4

There would be diplomatic resistance in Europe; but the possibi-
licity of military resistance was scarcely being improved at all. Con-
struction at the atomic plant would require many months to produce
results. Joseph Alsop complained about the inaction on Capitol Hill:
"The world is about to blow up in our faces, and the damn fools in
Congress behave as though there was nothing worse to worry about than
their richer constituents' difficulty in paying their taxes."
Senator Robert Taft complained that support for Greece might be as
much a cause of war as would Communist action in Cuba. "Democratic
liberals" Senators Claude Pepper and Glen Taylor with Helen Douglas
visited Acheson to "raise Ned" over his supporting British imperi-

alism in Greece.  

Joseph Alsop was excited about George Kennan's famous "Mr. X." piece, which he called the most important political writing of the
year because it implied that Anglo-American policy was founded on the
expectation of change in the Soviet Union after the end of Stalin.  

More than a year after George Kennan's somewhat mysterious luncheon
discussion (Chapter V) on what to do to Russia if the Red Army marched
into Western Europe, General Spaatz repeated Kennan's theme, almost as
Dr. Hopper recorded it, in a public statement. He mentioned that it
was possible to establish, on the basis of the recent war, that "the
precision bombing of a few hundred square miles of industrial area in
a score of Russian cities would fatally cripple Russia's industrial
power." A team member to the last, General Spaatz was careful to add
that Army and Navy support for such a project would be needed until
intercontinental air weapons could be developed.  

As the Russian threat to Europe became more serious there was
less talk about it by military men. One simple reason for this was
that in December of 1947 the Secretaries of the three services agreed
privately to prohibit public criticism of Russia by military officers.
Rulings of this sort did not prevent trusted journalist Joseph Alsop
from finding out that the possibility of Europe going Communist was
taken so seriously in the Pentagon there was a plan for retreat to
Iceland, Greenland, the Azores, Dakar and the uranium producing areas
of the Belgian Congo. Admiral Richard Connolly, commander of the
American fleet in the Mediterranean, was not happy about what he called the "British plan" on what to do if the Soviets attacked, since it was entirely too vague. The plan was, of course, an evacuation plan.

Planning was a new art for the American armed services. There had been no war plan before World War II, since it was believed in the pacific climate of the times that to plan against war might cause one to happen. Planning after World War II was not begun until the Red Army threat became very serious in 1947. Until the unification bill passed, the Joint Chiefs of Staff had been just an Army-Navy committee. After there were three services the necessity for their overall co-ordination was more obvious. The Joint Strategic Plans Group began to work on general plans for the threatened areas: the Middle East, the Polar approaches, and Western Europe—all separate. The military services at that time were still struggling against the effects of demobilization and low budgets, so there was little to plan except for a gradually growing number of atomic bombs.

An elementary effort was made to select a target list for the stockpile of atomic bombs which was expected to approach one hundred by 1949. The target list included heavy industry areas, oil refining and distribution areas, government control centers and, to slow down the Red Army movement to the west, rail centers in Eastern Europe. No effort was made at the time to target airfields in Communist areas; there were too many of them. The Russians did not yet have the atomic bomb as a threat so airfields had reached no new importance. The list of targets picked out by a few men seemed almost unreal but it was one of the most protected documents in the government. There was conster-
nation one morning when a copy of one list was returned by a cleaning woman who had found it the previous night. The Joint Group was provided with inadequate intelligence but it was known that the Russians had maintained their old equipment from World War II and were rapidly adding new tanks and planes, so that they possessed a truly formidable force.  

The main effort toward resistance would be made in Western Europe. It was decided there would be no effort to hold in the Far East except off the shore of the Asian continent. Just a year before the Korean War, Army Secretary Royall thought public opinion in the United States would not support a defense of Japan against Red conquest. Pacific-oriented General Ennis Whitehead saw Japan as a neutral "Switzerland of the Far East." He thought the U.S. should not become overcommitted by an alliance with Japan, especially since nuclear counterattacks against Russia could be achieved, with refueling, from Okinawa and the Philippines. Considering the meager American armed forces in existence at that time, this was the only policy that made sense. It was also the policy that led to the Korean War.

Discussions of atomic weapons were greatly inhibited by the peculiar provisions of the Atomic Energy Act of 1946 which classed as "restricted data" all discussion of the utilization of atomic weapons. Months went by before the Air Force could inform field commanders about such matters. At the highest level there was frequent discussion of atomic problems. The attitude there became so matter-of-fact as to disturb Lilienthal because there were no "token" expressions of "profound concern and regret" that it was necessary to develop atomic weapons. Admiral Leahy, whose profound distaste for these weapons had
been expressed since they were mere possibilities, provided more than
token regrets. He had approved a second series of the tests to verify
more efficient explosive designs but at a meeting with Eisenhower,
Marshall and Nimitz he had stated that in his opinion atomic bombs
should only be used in retaliation for their use. Leahy had recorded
that this idea "did not seem to meet with the approval of the other
Army and Navy representatives present."\(^{12}\) Despite his stand on use of
the bombs Admiral Leahy continued to insist the United States should
not agree to eliminate them as a deterrent.\(^{13}\)

The growing concern over atomic weapons was heightened by the in-
creasingly obvious inadequacy of American military forces to deal with
emergencies that could threaten the continued freedom of Europe. Late
in 1947 the Joint Chiefs of Staff, which was just beginning to function
as a legally integrated body rather than a mere committee, inlined at-
tention to the fact that any additional deployment of forces would re-
quire mobilization. They found the aircraft industry in no condition
to expand rapidly in an emergency. Admiral Leahy considered the cost
of adequate military aviation too high for peacetime and predicted a
serious shortage of funds for the armed serious shortage of funds for
the armed services.\(^{14}\)

As the critical year 1947 drew to a close Secretary of State
Marshall began to despair of Russian agreement on peace terms. Soviet
forces had been stationed near Western occupation areas in considerable
strength. No effective resistance could be made against these forces
"until a sufficient army is mobilized in the United States and trans-
ported across the Atlantic which would require much more than a year."
Admiral Leahy believed it logical that the Soviets would want to move
before European rehabilitation under the Marshall Plan had begun to be effective. He thought partial mobilization should begin. This was apparently his alternative to reliance on atomic weapons, but how any American force could arrive in Europe in sufficient time and strength to stop the Red Army neither he nor anyone else attempted to explain.

In the gathering gloom George Kennan and General Greunther stepped forward with a theory that would be increasingly popular for the next two and a half years, or until the Korean War. It was a State Department belief, or hope, that "the USSR does not intend to accomplish its purposes by the use of armed force" but rather by infiltration and sabotage. Meanwhile Mukden fell to the Chinese Communists because of a shortage of American ammunition and the Soviet command formed a "people's government" in North Korea, in violation of allied agreements. Admiral Leahy expressed the long range view, which would be more popular after twenty years, that a non-Communist China was of more importance to the United States than the rehabilitation of Western Europe.

A conference of the President, the Joint Chiefs of Staff and the appropriate secretaries was called by Secretary of Defense Forrestal in February of 1948 to show the inadequacy of United States forces to meet their global commitments. There was no discussion, since nothing new was learned. The President took no action. In early March information was received that a Russian move could be expected in three months. This was later confirmed by the blockade of Berlin. Meanwhile Admiral Leahy attended the Key West conference on roles and missions of the armed services and observed that "all parties fought vigorously for the interest of their own group and not for the interest
of national defense." He also gave to reporter Marquis Childs an account of what would happen if war came which illustrates the problem of reporters who do not have access to unofficial sources of information. The Admiral told Childs that no war was expected but if it came "we have plans to use the small forces available to us in such a way as to make difficulties for the enemy while our resources are being augmented."  

During the first half of May, Admiral Leahy recorded a significant series of events that demonstrated not only his influence on President Truman but also the painful choices that would confront the few men at the top if the Russians moved into Western Europe. At a meeting with the Joint Chiefs of Staff the planners presented an emergency plan to be employed in case of war against Western Europe by Russia. The plan was "completely dependent upon the full use of atomic bombs for success." On the following day, the President told the Admiral to direct the Joint Chiefs to prepare an alternate plan for resistance without the use of atomic bombs, because they might be outlawed or not permitted "for aggressive purposes" by the American people. A week later the Admiral so informed the Joint Chiefs of Staff.  

Leahy's use of the phrase "for aggressive purposes" was a curious one. Apparently he meant use beyond the battle line, since it was always assumed the entire purpose of their use would be the defense of Western Europe against aggression. The alternate plan could, of course, be nothing more than a pell-mell evacuation of Americans ahead of the Red Army. On the other hand, there was no absolute assurance that the number of atomic bombs available would completely stop a Red advance.
A paper from Secretary of Defense Forrestal to President Truman in mid-July recommended that the National Security Council develop a national policy so that the military establishment could produce an appropriate budget and a military force designed to support the policy. Thus began an effort which would never really succeed, at least not in the next quarter-century. The suggested policy would always be inflated above the means made available to support it. The nuclear weapon, sometimes considered seriously and sometimes only as "deterrent," would handily cover the gap until the day it might be taken as bluff and the bluff might be called. Then the hard decision, if not already made, would have to be made.

The atomic bomb came more and more to be considered the only solution the nation could afford, and at last the military leaders were beginning to be let in on its secrets. According to Lilienthal: "Although the atomic bomb was developed under the aegis of the Army, Groves kept all but a very few military men completely out of it. They had to learn about the weapon that changed all war plans and ideas of warfare long after the weapon appeared." One of the first things they were supposed to "learn" was that ships and troops would not be likely targets. This assumption was based on number of bombs, which would change, and the number would always change much faster than the assumptions. Lilienthal observed that since the Navy exempted its ships, the Army its troops, and the Air Force kept its old ways of doing things, "that leaves the civilian as the only one affected." It was an astute observation. In just 14 years the "super-civilian," Robert McNamara, would have his day as Secretary of Defense.
Joseph Alsop has explained that from 1945 to 1948 "our atomic plants did not stop running but they remained in operation at a fairly steady rate with no substantial improvements....The word to expand production was given in 1947 but we had to build new plants for this purpose and this took time." It took more than a year to increase production but the 1947 date for the decision is significant. There was no expansion of the armed services, not even of the Air Force--just the production of atomic weapons was expanded in the fact of the growing Russian threat to Western Europe. Bomb design was at last hurriedly improved. Three improved bombs were exploded at Eniwetok atoll in the spring of 1948.22

While this was going on the Russians were, of course, working constantly on their own bomb. For the interim, Stalin's own military doctrine was a studied pose that atomic weapons in no way affected the basic factors that decide wars: stability, morale, the size and power of the divisions, the army's weapons and the leadership of the commanders. This was "a mixture of the dogmas of a Communist and a Russian ground force soldier."23

In the United States the Secretary of the Army, Kenneth Royall, was saying that the value of strategic bombing is "limited," and he drew a protest from Secretary Symington of the Air Force. The Commandant of the Air War College, Major General Orvil Anderson, was quoted as saying that any new war might be settled in one night, after General Eisenhower had suggested sixty days. Army General Omar Bradley protested to General Spaatz that "this sort of thing sure makes it hard on those trying to sell Universal Military Training." General Spaatz admonished General Anderson,24 but he would be heard from again.
The Army, which had never achieved a monolithic doctrinal facade like that of the Navy, was suffering from internal dissension in its reaction to the atomic bomb. General Marshall in 1943 had expressed the view that there could be no large peacetime standing Army because it would be too costly and would not be popular in the United States. He had conceded that "having air power will be the quickest remedy." Of course General Marshall could not at that time foresee the Russian threat and the necessity for continued occupation of conquered nations that would develop to disturb the years of peace.

An Army plan chief testified in 1947 that the Army had "managed to maintain" only two and one half division and 22 air groups in the United States and that these were considered as support for the occupation forces overseas. As if to illustrate the Army's confusion in regard to air forces, General Eisenhower praised air power as the most ready of forces but condemned it for its "immobility." He laughed at the theory of "push-button" warfare when "all we have so far is the button." He wrote of a possible "72 hour war" but at the same time deplored the idea that a sudden attack could win a war.

When Army Secretary Robert Patterson asked General MacArthur in Tokyo how the Red Cross could do a better job in the next war, the General, who was in his "peace is inevitable" period, replied "The next war won't last long enough for you to do any job." The conscientious and very formal Patterson noted: "The General may be correct in his prognosis of the catastrophic tempo of future conflicts, nevertheless we must formulate plans for improved morale service to our armed forces."
Army spokesman General McAuliffe in 1947 ruled out the use of atomic bombs against "tactical" targets. He also explained that such targets are the only decisive ones, and thus practically ruled out the bomb. General Bradley explained the function of the Army in an atomic war as repairing damage, encouraging the people, seizing bases the enemy might otherwise seize, launching a counterattack by air, and then trying to move air bases closed to the enemy—a large and confused order. Better organized rhetorically was the prescription of a War Department Plans officer: "Closely following the missiles and the bombs, ready to take prompt advantage of the destruction and the panic, will come hordes of airborne troops, bringing with them the accoutrements of war."\textsuperscript{28}

The Navy was originally as confused as the Army on what to do in the atomic war that was so freely predicted before the Russians exploded a bomb and the idea became "unthinkable." Admiral Ernest King, the Navy's caustic war-time chief led with a questionable statement demanding new and stronger ships to resist atomic bombs but claiming the Navy could spread to avoid attack. Admiral H. W. Hill took a position that proved more tenable—"new weapons seldom eliminate old ones." Admiral Chester Nimitz, also a bit premature in 1945, boldly declared that the best defense against atomic bombs was "far-flung sea power trying to head off the bombs." Admiral "Cat" Brown wrote that it would be "fatuous in the extreme" to deny the influence of the atomic bomb on naval thinking, although "however you view it such warfare is not attractive." He said the Navy would help seize territory to dominate the enemy's vital areas. Admiral W. H. P. Blandy, who managed very well the atomic tests he named "Crossroads" because "we are indeed at
the crossroads of mankind," found comfort in the thought that "if war is abolished, we will need a naval police force."\textsuperscript{29}

One strikingly correct evaluation of the Navy's future with atomic weapons was that of its brilliant Secretary, James Forrestal, who testified in September of 1945 that the Navy intended to adapt the atomic bomb to carrier planes.\textsuperscript{30} This idea would be shelved for purposes of interservice maneuver, but it was to be carried out within five years.

With even more precise accuracy, General Ira Eaker, who was General Arnold's favorite spokesman, predicted in 1947 that the V-2 rocket, which was developed in eight years by 500 German Ph.D.s, could be extended by further research to 5000 miles range in fifteen years. Although he was still under Army administration in mid-1947 General Eaker ventured to say "we should at least explore the possibility of conquest without occupation." He went further to predict that one day the United States would be vulnerable to a first strike by atomic missiles against which there was no known defense, since the "current type of air force could not retaliate effectively."\textsuperscript{31}

General Ennis Whitehead predicted in 1947 "we might be forced to use our bombers against Red rocket launching sites as was Spaatz in 1944" but he was talking about rockets to be used against European targets. Later Whitehead would observe that "during the lean years immediately following the war the Air Force appeared to set as its level of long range bombing power the ability to carry out a brief though devastating offensive. This was probably motivated by the size of the stockpile and the difficulty of obtaining funds." It was. Whitehead also observed that air power should be able to press war to a conclusion.\textsuperscript{32} There was no such air power in existence by any
country in the late 1940's.

A notably less accurate prediction was made by Colonel William S. Momeyer of the Tactical Air Command, in 1948. He thought the Tactical Command would not become involved in another war, and that jet escorts were an obsolete concept of the last war. General Momeyer in 1968 was the Tactical Air Commander in Vietnam.

Despite the Air Force's forward thinking, it had internal problems on the question of the "tactical" air forces normally used in support of the Army. General Norstad thought they might be obsolete. Historian Robert Frank Futrell wrote that "the Air Force would continue to debate the effect of nuclear weapons on air power at the same time that it was recording the doctrinal lessons of World War II applicable to tactical air power." General Spaatz pointed out repeatedly that the problems of warfare, and even of air warfare, were not all solved by the atomic bomb. He objected that "some writers of the day confuse the atomic bomb with security" and counseled reliance on "properly balanced forces, land, sea, and air." Air campaigns rather than isolated attacks would be necessary. "If you had only one airplane carrying the atomic bomb and the defense geared to get it at any cost, you might have quite a problem." In this position General Spaatz was supported by other senior air officers. General Doolittle pointed out that the United States had to have control of the air over Japan before it could deliver the atomic bomb. Intelligence officers estimated that Russia had the strength not only to dominate the Middle East but also to reach the Channel and the Pyrenees in ten days of all-out attack. General Spaatz received a report that Russia already had established air defense in
depth across Eastern Europe. The report concluded: "As you have consistently argued, sneak attacks will not win the war."^{35}

While at least one Air Force officer resurrected the name of the Italian air "prophet," Douhet, to claim that his "principle" had been validated at last by the atomic bomb, General Spaatz pointed out that not even General Billy Mitchell had claimed that air power unsaid could win a war. The morale effect, even of atomic bombing, is "very difficult to predict," said Spaatz, and he warned against too much optimism. "If everything is based on one hope you might be in a very vulnerable position."^{36}

The great expanse of Eastern Europe and of Russia was spotted with many hundreds of military air fields which made possible a wide dispersion and rotation of forces. The Strategic Air Force commander, General George Kenney, insisted that "there is no time to try to destroy the enemy air force" and General Spaatz agreed that "not other aircraft" but the sources of the enemy's military strength should be the strategic objective. Nevertheless, Spaatz recognized that "in the unfortunate event of another war the facilities of atomic weapons should be the number one target...any influence I might have, if alive at that time, would be to that end." For an enemy without such a threat, the most critical targets would always include oil.^{37}

The airplane and the atomic bomb appealed to many as an irresistible combination. Harvard Professor Bruce Hopper, who was on General Spaatz's staff during and shortly after World War II, was sometimes more evangelist than analyst, as when he exulted "The American people are the first true air people in history; in time we will make them aware of it. It's wonderful to be on the side of inevitable things."
General Spaatz was not so easily elated. He said "This power has become so terrible that we must maintain ourselves ahead of everybody else until we get sense in the world and prevent wars. It is getting out of hand in the amount of destruction that can be done." Yet he felt that with ou without atomic weapons, air power, if efficient and decisive, could save lives. He said when armies are locked in a stalemate for years "there ensues a bloodbath as in World War I." Five days of the Somme meant more casualties than six weeks of the Normandy invasion, and air power was the difference. In attempting to counteract what he considered an obsession of the Army, Spaatz insisted that perhaps no country would attempt to invade the United States. "The objective of a nation like Russia" might be only to cripple our industrial capacity and thus stop us from interfering in their actions in Europe or Axis.36

Over the two decades that followed the late nineteen-forties a legend grew up, or was promoted, that after World War II there was great emphasis upon the Air Force, and especially upon the Strategic Air Command and the long range B-36. Even so conscientious and normally accurate an historian as Carroll Quigley repeats this legend and states that "the Air Force wanted 70 air groups of B-36 bombers." In fact the total number of long range bomber groups of all types which were ever requested in this period was 20, and of these only four groups were of the B-36 type, as we shall see.

Seventy groups were once suggested as the total postwar Air Force, but this goal came nowhere near realization until after the Korean War. As General Spaatz pointed out at the time, the 70 group force was not considered sufficient for war but was intended to preserve a base for
wartime expansion. "The changes we contemplate are more in the nature of improving our equipment, getting more performance out of it, than in increasing our numbers." After all, he said, soon "the weapon for defense of the country might be a guided missile." \(^{39}\)

The most ambitious request for new aircraft, not realized by half, was three thousand per year, which was less than two weeks of World War II aircraft production. The prospect of nuclear weapons in modest quantities led to more advanced design in aircraft--range in the B-36 and speed in the jet powered B-47. There could be no true mass production of improved World War II type aircraft for several years. \(^{40}\)

A minor legend and one that has been increasingly circulated, concerns the origin and the timing of air refueling techniques developed by the Air Force. It is commonly stated that this capability was hurriedly borrowed from the British and falsely claimed as a capability in 1948. Arnold Rogow, for instance, in his excellent biography of Forrestal, quotes an anonymous "member of Forrestal's staff" as claiming he made the suggestion to "airforce friends" who took his hint and claimed air refueling "capabilities" which they said had been ordered from England. The fact is that General Spaatz himself had piloted the first air-refueled endurance flight of note in the nineteen-twenties. There had always been an Air Force interest in the various air-refueling techniques. During World War II the British also had made progress in experimentation but "the technique was logistically infeasible for massed bomber attacks which employed iron bombs." In 1945, Tactical Air Force Commander General Hoyt Vandenberg had urged refueling for fighter escort aircraft, which was more feasible because fewer tankers were required. But air refueling was con-
sidered too expensive in terms of the small force existing at the time, since two aircraft, a tanker and the combat plane, would be required for a single sortie.

During 1947, as plans for increased atomic production were made known to a few planners, studies of refueling systems were revived. Older and cheaper tankers—modified bombers—might be used to refuel the new jet bombers which were deficient in range. When the production of the big but slow B-36s was continued, it was predicted that some of these might eventually be converted into tankers for the faster jet bombers. In January of 1948, months before the Berlin crisis, the Air Force's Weapons Board accepted recommendations that air refueling be developed as a matter of first priority.  

These decisions of 1948—to proceed with the purchase of a few B-36 aircraft, to develop smaller jet bombers and to improve air refueling—marked the first shift toward a modest emphasis on strategic air capabilities. Until that time the Strategic Air Command had enjoyed priorities in manning and equipment but "it did not obtain new equipment or a complete acceptance of its operational concept" within the Air Force. Despite the small numbers of B-36 bombers being manufactured, the project was a large one for that period and it was rushed by having production aircraft follow closely on the experimental article. General Kenney, chief of the Strategic Air Command, complained to General Spaatz that the new B-36s he was scheduled to receive would be incomplete, unarmed, and "have many bugs." The modified B-29s and the B-50s in his force also had many mechanical flaws. General Kenney requested the assignment of another B-29 group to his command in order to maintain combat effectiveness which meant:
to be able to deliver, if called upon, the few atomic bombs which were available. The limited resources available to General Spaatz did not permit him to grant General Kenney's request. ⁴³

There was much talk of emphasis on research and development in view of rapid Russian progress in aircraft. Everyone in the government appeared to approve, but only in principle. Funds for Air Force research and development remained well below 200 million even in the critical year 1947. Toward the end of the decade General Arnold, who was worn out and spending his last few years on his California ranch, could say only that "at long last it begins to look as though we have succeeded in focusing attention on the sky, instead of on the ground, or over long stretches of water." When General Hoyt Vandenberg, "the most impossibly handsome man in public life," succeeded General Spaatz as Air Force Chief of Staff in mid-1948, General Arnold wrote to inspire him to great efforts but to warn him against frustration: "You are...coming to office at a time when the democratic peoples--the freedom loving peoples--of the world are entrusting to airmen their greatest and most persistent hope, their desire for lasting world peace...your position is too big to allow you to have goals, as such; you will find you are able to have new vistas only." ⁴⁴
Chapter VIII
Military Leaders Debate the Bomb


24. Secretary Symington to Secretary Royall, April 6, 1948, Spaatz Papers; General Bradley to General Spaatz, Feb. 19, 1948.


27. Robert Patterson, Memorandum on Japan Visit, 1946, Patterson Papers.


34. Robert Frank Futrell, USAF Historical Study No. 139, Air University.

35. General Spaatz to the Air Force Association, Aug. 1, 1947, Spaatz Papers; General Spaatz interview by C.J.V. Murphy,
Mar. 25, 1948, Spaatz Papers; Robert Frank Futrell, USAF Historical Study No. 139, p. 271; General Spaatz from Weapons Board, Jan. 27, 1948, Spaatz Papers.


41. Arnold Rogow, *James Forrestal*, p. 207 n; Robert Frank Futrell, USAF Historical Study No. 139, Air University.


43. General George Kenney, Memorandum to General Spaatz and reply, Jan. 1948, Spaatz Papers.

44. Robert Frank Futrell, USAF Historical Study No. 139, Air University; General Arnold to General Spaatz, April 25, 1949, Spaatz Papers; Joseph Alsop to Martin Sommers, Jan. 3, 1947; General Arnold to General Vandenberg, April 26, 1948.
Chapter IX

Defense is Cheaper by the Bomb

We are interested now in new gadgets, refrigerators, automobiles and things like that; and we are not as world-minded in our thinking, perhaps, as we were during the war.

Congressman George Mahon, 1917

Those responsible for American policy did not warn the American public that a further desperate struggle for the European balance of power was imminent.

Walter W. Rostow

Since the dollar is a catylist to transmute an idea into actuality, the budget debates are a most appropriate forum for the public decisions on public policy.

Rear Admiral J. C. Wiley

Early in 1948 a young Commander of the United States Navy was presenting a report to the members of the Atomic Energy Commission. The Chairman, David Lilienthal, had just read in the morning paper that the Communists had taken control of Czechoslovakia, so he listened more intently. The report, always oral, was on the state of the "stockpile" of atomic weapons--the number of weapons, the various types, and the components. Lilienthal once called these numbers "the center of reality."

Ten days later Lilienthal was asked by Secretary of the Army Royall how long it would take to get a number of atomic bombs to the
Mediterranean. Royall was disturbed by the possibility of having to move them there. Secretary Symington of the Air Force was worried by the fact that the American public was completely misinformed about how soon atomic delivery forces could go into action and what they could do. Admiral Richard L. Connolly, the American Naval commander who was in the Mediterranean, knew very well what could not be done. The war plan, he knew, was an evacuation schedule for American ground and air forces from the European continent to North Africa, Spain and the Azores—if possible: "They were in such small strength that there was no question about the opposition being able to chase them out in a land campaign."

There was nothing new in this situation. Western Europe had been deficient in defenses for many months. Some six months earlier journalist Stewart Alsop had withdrawn his attention from "timid old Dr. Nourse, Chairman of the President's Council of Economic Advisors" and from the once "starry-eyed idealist" Henry Wallace who suddenly "was betting on the Communists." Alsop had shifted his attention to Europe, where betting on the Communists was becoming more and more popular. At the Pentagon, Alsop kept an appointment with two top military men who were willing to explain the problem throughly to a trusted reporter and friend. Although Alsop did not record the names of the generals who discussed freely so much top secret information, the context indicates that they were Generals Hoyt Vandenberg and Larry Norstad of the Air Force.

These "intelligent, moderate men" said Alsop, talked calmly of what would happen "if Europe goes," meaning if Italy and France should fall to the Communists. One choice would be to fight. "But
how? How attack, without allies, the vast Eurasian continent and so subdue it, even with atom bombs, that our mastery would be complete?"

"The possession of the atomic bomb has given the American a rosy optimism about the ease and duration of a future war with the Soviet Union." The war might last many years. One of the military leaders had developed a theory, implied by the last war, "that war itself is a defeat. He believes that if there is another war this will become abundantly clear to the survivors."

With surrender ruled out, the only other choice was not to fight. This would mean a standard of living greatly reduced, with most trade lost and defense costs mounting to perhaps half the total national income. The American economic and political system might not survive. The argument that predominant sea power would maintain the American position was discounted. One general said "They talk about running over and bombarding the shores, but there are a great many shores and none of them are Russian." These Air Force thinkers also discounted the strategy of attacking Russia "over the poles" proposed by some Air Force optimists. "It would be like shooting an elephant in the tail with a .22 rifle."

The real truth was that the Air Force could not operate effectively from the North American continent against the Eurasian continent. The B-36 range of 5000 miles meant a radius of 2500 miles. A semi-Kamikaze scheme could increase this by abandoning the planes over some neutral area where the crews might survive even though the planes would be lost. Since a few years might elapse before ranges could be extended appreciably, it might be necessary in the meantime to establish bases in Greenland, Iceland, the Azores and eastern
Brazil. Alsop was asked never to mention Iceland and Greenland as possible base areas, since left-leaning Senator Claude Pepper and Secretary of Commerce Henry Wallace had publicized the negotiations on a previous occasion, thus embarrassing the foreign governments and exposing them to Russian threats.

It would be necessary to try to hold open the Mediterranean for oil, for forward bases and for world communication, and to give support to resistance movements in Communist dominated Europe. What could England do? Not much, unless all the actions outlined could be taken immediately by ready forces. In any case, England would be so completely overshadowed by a Communist-dominated continent that she might have to surrender and be used against us. Though the officers were wary on this point, it was obvious that a task force to hold Congo uranium would be a prime necessity. Rightly or wrongly, Alsop wrote of his military instructors, "their thinking would deeply influence our policy." Alsop sent a copy of his memorandum to Senator Arthur Vandenberg.\(^5\)

Shortly after this interview, Air Force Chief of Staff Spaatz stated that one-way missions would be justified by the power of atomic bombs if the crews had "the best that can be supplied in the way of an escape mechanism." The missions would have to be in bad weather--General Spaatz mentioned a 600-foot radar bombing accuracy--or at night. Night interception was always difficult. In World War II night fighters had lacked the fire power for lethal hits on their dim targets, rarely bringing down more than one plane on any mission.\(^6\)

The situation was a desperate one, and more difficulties lay ahead. When Air Force pilot Lt. Chuck Yeager broke the "sound barrier"
in October of 1947, there was cause for pride although every effort was made to keep the achievement secret. General Spaatz, in common with most Americans, had begun to be disturbed as well as pleased by new technological triumphs, however necessary they might be to competitive progress. To the Secretary of the Air Force he wrote that super-sonic speed presented a number of problems, such as the one that would arise when an aggressor might combine supersonic speeds with guidance and atomic warheads. "What is our defense?"

Shortly before his retirement in 1948 General Spaatz and his staff editors, Major McFarland and Bruce Hopper, prepared a manuscript which stated that the use of atomic bombs by the United States had brought disadvantages. There was inevitable suspicion that the country that had used the bomb might become an aggressor, so it would be forced to maintain a lead in the weapon it had inaugurated, and to overcome all challenges for leadership. "It was believed not long ago that our monopoly might achieve stability and peace, but there is now much less optimism." A skillful defense might neutralize the present atomic superiority. Therefore the defense of the United States "must not be premised on atomic bombs and our ability to deliver them" to distant targets. General Spaatz predicted that the nation would become vulnerable to guided missiles. Leaders of the future, he concluded, fortified by moral courage, would "know how to sacrifice some of the sovereignty of their nations in the higher interests of peace" to achieve "viable world government under a regime of law."

While looking for the unlikely, General Spaatz did not hesitate to think about the unthinkable. When an interviewer asked him if he agreed a bomb as terrible as the atomic bomb might never be used, the
man who received the order to drop the first bomb replied "I think that possibly would be true except that we have used it." For this kind of realism General Spaatz stood almost alone among Americans in positions of authority.

Despite the seemingly overpowering pressure of international tensions and dangers, domestic politics came more and more to occupy the minds of civilian leaders in the United States, including that of the President himself. There would be a presidential election in 1948, the first of uncertain outcome since the election of Herbert Hoover twenty years earlier. With interest in national defense remaining high, the troublesome question of military loyalty to the President as a party leader was raised. In a War Council meeting of January 1947 Secretary Patterson stated that for questions asked military leaders in Congressional committees "the answer must be hedged and turned back in such a way as to support the President." By 1947 the impetus of World War II armament programs was running out. Funds for new weapons and the research to produce them became exhausted. At the same time the score of Russian divisions in East Germany were being equipped with new heavy tanks and heavy artillery. The mass production of Russian aircraft had continued since the war and had created a totally new threat, a massive Red air force to match the Red army.

After the fall of Czechoslovakia the State Department had changed its policies from what had been called appeasement to a public stand of quietly brandishing air power against new Communist threats and challenges. While this was happening, President Truman's Bureau of the Budget impounded 30 million of the funds for aircraft which had
been voted by Congress and cut from approved military aircraft procure-
ment 35 four-engine bombers and 32 fighters. The stated explanation
was that research in a peaceful period was more important than pro-
curement, but Air Force Research and Development funds were cut by a
much greater percentage than procurement—from 186 million to
111 million.

For the following year, fiscal 1948, the original research appro-
priation request by the administration was cut by both President and
Congress to 145 million. In that year action by the House of
Representatives, together with postwar inflation, cut the aircraft
procurement program to less than a thousand planes of all types.
Only 82 heavy bombers, propeller-driven B-50s, were purchased.
These actions were taken despite general agreement that at least
3000 military aircraft a year would have to be produced to keep a
functioning aircraft industry which would be capable of expansion in
an emergency. It was already apparent that optimistic predictions
of postwar expansion of aviation were in error, since no great demand
for commercial aircraft had developed to maintain production lines
and the aircraft industry remained more than eighty percent dependent
on purchases of military planes.

It was in this context that General Spaatz, early in 1947, replied
to General George Kenney's request that the contract for B-36 aircraft
be reduced. Kenney, then commander of the Strategic Air Command, was
dissatisfied with the monster planes because of leaky gas tanks and
other faults that threatened to require considerable time for correc-
tion. General Kenney wanted to replace some of the prospective B-36s
with more advanced aircraft. Spaatz admitted that no present-day
aircraft would be adequate against the missile systems expected to be available in a future war of unknown date, but something had to be done in the meantime with the funds which had been voted. He wrote "you will agree that the present temper of the new Congress indicates that the success of such a proposal"--the appropriation of new funds for aircraft superior to the B-36--"is unlikely." So the B-36 contract was not reduced. Later improvement in the design and performance of the B-36 confirmed the wisdom of this decision.\textsuperscript{14}

Despite unanimous military opposition in critical 1947 to the cutbacks and deletions, the defense budget was represented to the public as having complete military approval. It was stated repeatedly by administration spokesmen and by economizers in Congress that the budgets for the services were developed from "war plans" of the Joint Chiefs of Staff. Yet testimony in the budget hearings revealed that the Joint Chiefs had neither reviewed nor approved the detailed military budget, and also that a letter from President Truman to the Bureau of the Budget warned that no officer of the government must ask support from Congress for a larger appropriation.\textsuperscript{15}

The defense budget for fiscal 1949, the year ending June 30, 1949, had already been worked out by the Army and the Navy when Forrestal became Secretary of Defense in the fall of 1947. He agreed to support the President in requesting appropriations totaling only 11 billion. This figure included funds for no more than 55 groups of the 70-group Air Force which had been recommended by official Boards and endorsed in principal by the administration. Forrestal proposed a "balanced force" of 782 thousand men for the Army, 460 thousand for the Navy and 92 thousand for the Marines, plus 400 thousand for the Air Force. Air
Force witnesses at Congressional hearings managed to imply they could not willingly accept the reduced figure, so that Secretary Forrestal's subsequent testimony was mostly defensive on this point. He went so far as to testify that if Air Force strength were increased by just fifteen groups, the total budget would have to be increased by 18 billion to "balance" these groups with Army and Navy units. This unfortunate statement led to almost open disagreement from Stuart Symington, Secretary of the Air Force, and to disbelief on the part of most members of Congress. 16

Public opinion polls showed that a considerable majority of Americans favored a 70 group Air Force and Congress responded by voting for this figure 3 to 3 in the House and 74 to 2 in the Senate. Despite repeated appeals by the President and by Administration leaders, Congress refused to enact the provisions for Universal Military training and instead reenacted the draft in mid-1948 in order to maintain the strength of the services. 17

Although the action by Congress meant little, since it did not compel the Administration to provide 70 groups for the Air Force, Forrestal considered the vote a personal defeat. He expected further trouble over the fiscal 1950 budget which was begun in the summer of 1948. Despite his efforts to persuade the Service Chiefs to accept willingly the President's secretly imposed 15 billion ceiling for the 1950 budget, the Chiefs were unable to agree on such a figure or on how it should be divided. 18

Experienced Admiral Leahy was disturbed by Forrestal's efforts to have the Joint Chiefs of Staff work out a joint budget between themselves. He said this would adversely affect their efficiency in war,
and he believed that the recently appointed chiefs had no conception of the work that would be demanded of them in war. Budget Director James Webb also was disturbed by the Joint Chief's efforts, but for a different reason. He told Lilienthal that the Chiefs had begun an all-out drive for appropriations that totaled 25 billion a year. Webb blamed Forrestal, as did the President, for not "disciplining" the Chiefs and forcing them to agree on a lower figure. The President, he said, had given them "the severest reprimand I have ever seen delivered." Webb complained: "The idea of turning over custody of atomic bombs to these competing, jealous, insubordinate services, fighting for position with each other, is a terrible prospect."

The situation became even more difficult. An economic recession in the fiscal year 1949 reduced an anticipated budget surplus of 5 billion to a deficit of 2 billion. President Truman cut the budget ceiling from 15 billion to 14.4 billion. The Secretary of Defense had no basis for allocation of this amount among the services and no authority to make an allocation under the weak unification legislation of 1947. The National Security Council, which Forrestal himself had instigated, refused to provide guidelines either for a national strategy or for the budget.

Secretary Forrestal created next an ad hoc board of military officers to reduce the requests of the separate services but the board could not agree on a total figure of less than 23.6 billion. The Joint Chiefs of Staff prepared a paper on the implications of the 14.4 budget which stated this figure would rule out any strategy for the defense of western Europe other than an atomic attack from Britain. The Chiefs urged raising the figure to 16.9 billion to permit an effort
to hold open the Mediterranean against Russian attack. The national security council refused to endorse this paper. 21

Admiral Leahy placed himself in the somewhat contradictory position of approving the budget but not the use of atomic weapons which this budget would appear to make necessary in war. In one respect, however, the Admiral's position was quite typical. While he approved the total figure he did not think the amount allocated to the Navy was sufficient. 22 This attitude was common to partisans of each of the services and it was one cause of efforts to raise the total figure. Secretary Symington of the Air Force, for example, testified that since there was "no agreed strategic plan against which to buy," the services made unilateral requests in the expectation of being cut proportionately. 23 This procedure in all the services had raised the original total figure to 30 billion.

At this point President Truman, to the great surprise of practically all experts and pollsters, was reelected. Admiral Leahy wrote on the day after the election that the Joint Chiefs had finally agreed to split the total amount of 4.8 billion for the Army, 4.6 for the Navy and 5.0 for the Air Force. He said despite the forced "agreement" the figures were unsatisfactory to all the services. He was pleased, however, by the reelection of President Truman. Said the Admiral, "with his own efforts, by his complete conviction of the righteousness of his cause." 24

President Truman's complete victory was especially surprising in view of the fact that the candidacy of former Vice President Henry Wallace was expected to cut deeply into the Democratic party vote. Because Wallace advocated unquestioning "friendship" with Russia and a
move toward unilateral disarmament by the United States, he has since been presented as a farseeing and wise statesman by partisans of the "new" left.

At a dinner hosted by Roger Baldwin of the American Civil Liberties Union, David Lilienthal talked at length with Judge "Jerry" Frank about Henry Wallace, whom Frank had known well when Wallace was Secretary of Agriculture under Roosevelt in 1933. While Wallace was giving some scientific impetus to the Weather Bureau, according to Frank, he was also consulting Indian rain-makers; while furthering genetics he was consulting mystical "numerologists." At the same time he was corresponding with "Gurus," a fad which also would be revived some twenty years later.

Wallace's favorite Guru was one Nicholas Roerich, skilled artist and mystic, to whom Wallace wrote a number of letters which later proved embarrassing to him. The letters confirmed, among other things, that Wallace had sent Roerich, whom he called "master," to Mongolia to investigate the second coming of Buddha. The Morgenthaler diaries quoted Roerich's claim that his influence on Wallace had caused him to be the only cabinet member to oppose recognition of Russia in 1933.25

Wallace's campaign to "assume the Roosevelt mantle" had begun many months before the actual election campaign of 1948. In April of 1947 Bruce Hopper, the Harvard Professor of Political Science on the staff of General Spaatz, wrote a memorandum on the popularity of Wallace, which Professor Bruce Hopper laid to "a new hysteria, urged on by fears of atomic war with Russia." Hopper, who was a student of the rise of Nazism in Germany, described a great Wallace rally in
Madison Square Garden as:

A reproduction of many like it during the Nazi build-up of Hitler in the 1930's. The same tricks were used. The lights went out, to create mystery. A sepulchral voice then asked: 'What would President Roosevelt do about the Truman policy which is leading this country to war?' The searchlight then picked out a man in the audience, wearing a portable microphone. Darkness again. Then the voice of doom: 'I can tell you what President Roosevelt would say. He was my father.' The searchlight then shifted to another section of the audience—to Elliott Roosevelt. After he had finished came darkness again and the tramp of feet. The searchlight then turned on Henry Wallace on the platform—sort of heaven opened and there was the Messiah—who delivered an emotional harangue in the totalitarian style that used to make German women faint in the aisles.

"One is reminded," Professor Hopper continued,

of another Babylonian debauch of the atomic emotion at the Waldorf-Astoria in November of 1945, when you were supposed to introduce the pilot who dropped the first bomb; instead you were treated to an explosion, and the voice from the grave: 'This is the atomic age'.'26

The Wallace campaign was involved with Communist and fellow-traveller propaganda to promote fear and abandonment of atomic weapons by the United States. At Wallace's Chicago convention in January of 1948 there were so many known Communist party members among the 600 hundred delegates that no list of delegates was published. Yet a Saturday Evening Post editor wrote the Alsop brothers: "If Wallace is a communist, I'm St. Francis. If the Russians occupy this country Wallace will be shoveling snow in Siberia within six weeks." Stewart Alsop agreed "of course Henry is not a Communist...but I've been amazed to discover with what docility and competitiveness he's allowed the CP to swallow him." Alsop said Communist Lee Pressman had joined the Wallace Starring Committee, and that Wallace's testimony before the House Foreign Affairs Committee was written for him by David Ramsey, a former editor of the Communist journal "New Masses."27
Wealthy young Michael Straight, publisher of the moderately left-
ist magazine *The New Republic* sponsored the Wallace campaign and made Wallace himself editor of the magazine. Stewart Alsop recounted

an experience which would have been amusing in a way if it had not also been pathetic. Scotty Reston, Herb Elliston, I, and some others cornered poor Michael Straight, and badgered him unmercifully about Wallace, the *New Republic* and so on. Scotty especially was quite severe, and towards the end Mike was swaying back and forth with his head in his hands, like an Italian peasant woman moaning 'O Catastrophia'. What has happened, of course, is that poor Mike has got himself caught in a trap from which there is no painless escape. He knows rather better than most the extent to which Wallace has been bound and gagged by the comrades. He knows that a good deal of Wallace's policy, if you can call it that, is dangerous idiocy. Yet there is nothing he can do about it. Wallace, he confessed, no longer sees him. But on a higher plane, he can't now forswear Wallace, having hailed him as America's savior. And, on a lower plane, if he does forswear Wallace, that lovely new 100,000 *New Republic* circulation is down the drain.28

A full four months would pass before Alsop could report, with belated relief, that "Mike has now shudderingly discarded Henry Wallace, thus coming full circle, his dreams of king-making shattered."29

The campaign to promote sentiment for the unilateral abandonment of the atomic bomb by the United States reached its peak in the Wallace phenomenon. Within a year the Russians would have their own bomb, and while the campaign was continued, it would lose most of its appeal. Meanwhile, in the fall of 1948, the inescapable drift to a more and more atomic strategy continued. President Truman clung to his $4.4 billion budget limit as stubbornly after the election as before. Despite the well-meant pretenses of a few individuals such as Vannevar Bush—a scientist who told the public what he thought it should believe—it was well known in higher circles that atomic defense was the cheapest
defense, by far. Cheap defense had an irresistible appeal for political leaders who were interested in domestic popularity. Ambassador Walter Bedell Smith reassured the President by saying, wrongly, that the Russians could not develop the atomic bomb for at least five years. Air Force Chief of Staff Vandenberg said that in the future the Air Force would be able to drop the atomic bomb "when, where and how it was wanted." As Lilienthal observed, "no one could speak authoritatively for the entire military"—that had been guaranteed by Congressional fear of military unification and by non-military unification.

This situation left it up to political officials to interpret and act upon various military views in whatever manner they considered most expedient. They would not accept responsibility for a completely atomic strategy so the Secretary of Defense had to move in that direction. After vainly trying to persuade the President to raise his budget ceiling, Forrestal, who had fought for "balanced forces" earlier, began to say to friends that it was essential not to cut back the air rearmament effort. In January 1949 he still advocated balanced forces in principle but admitted that "as air power increases its radius it may be that you will have a war in the future where you will rely on it alone." While members of Congress relied upon the directed testimony of military men as justification for voting a low military budget, Forrestal secretly promoted an article in Fortune magazine advocating an increase of two-and-one-half billion.

Secretary of Defense Forrestal, one of the truly remarkable men of recent history, was in some respects the opposite of Henry Wallace, but he was much more complex. Although the White House removed some
documents from his files before releasing most of them to his heirs, his diary remains a truly significant document. They reveal his intense devotion to causes which included resistance to Hitler, opposition to preventive war, and contributions from his own personal funds to the anti-Communist political campaign in Italy. He supported the Marshall plan even though he assumed Communist nations, including Russia, would participate in it. After his tragic suicide the Washington Post editorialized pontifically and prematurely that he had overestimated the nation's military needs, a judgment that was not repeated after the Korean War began.

Although many Air Force partisans considered Forrestal too long a Navy advocate, after he became Secretary of Defense, General Arnold wrote to him on his retirement that it was a fine job to accomplish "as much as you did to build up our unified armed forces." Arnold wished the Congress had "put some teeth in the bill to give you more power, so that your hands would not have been tied so much."

At the Key West conference of service chiefs in February of 1949, which was attended also by Louis Johnson who would be the new Secretary of Defense, Forrestal tried to adapt to the second $14.4 million budget by establishing priorities: to avoid defeat, to supply what is necessary for the maintenance of existing military forces, and finally, whenever possible, to provide what each service needs. If strictly interpreted there would be little beyond the first priority--to avoid defeat--which meant principally atomic bombs and their effective delivery. Forrestal's last official act with President Truman was a meeting on December 20, 1948 in which he asked the President to keep Air Force heavy bomb groups at 20 by restoring six that had been cut.
Forrestal's efforts to avoid emphasis on atomic weapons had followed a pattern which was common among American policy makers. Sometimes this process would be illustrated in a single debate such as one recorded by Lilienthal at the Pentagon in mid-1948. Forrestal repeated his theme of the moment, that the American public had an exaggerated idea of the value of atomic weapons. He considered them powerful but not decisive. He spoke with irony of stories about planes taking off from Maine and flying over the Kremlin so that Stalin would "roll over and quit." The Army Secretary, Royall, took a different view. Atomic bombs just might be decisive. Then both Secretaries agreed that atomic weapons were "the best and almost the only thing" available, and that the Russians had a healthy respect for them. 36

Army Secretary Royall, disturbed by the threat to troops in Berlin and West Germany, wanted some policy questions decided: "Will we use this weapon if we are compelled to use force? Upon what kind of targets? And under what general circumstances?" Lilienthal objected to "the military" assuming in this manner that they could develop the proper answers for the use of this weapon just as they would for any other kind of weapon. 37 Yet the answers were provided by no one else.

The tests of new atomic bomb designs at the Eniwetok Atoll were a great success, and when the results were reported to President Truman in May, 1948, he interjected "I wanted to go out and see that," then rubbed the back of his neck in a puzzled manner while observing "that's enough to wipe out a good part of the world." Decisions had to be made toward production of the new model bombs and the President looked troubled even as he gave the authorizations. "Of course," he said, "I don't like the idea of such things at all. I gave the order
for the others, and I don't want to have to do that again, ever. What I hope is that you will work hard at the peaceful things about it, not the destructive. But until we are sure about peace, there's nothing else to do."\(^{38}\)

The outlook for fissionable material had been so gloomy in 1946 and 1947 that physicist Ernest Lawrence said the bomb makers were almost "out of business." Prospects had greatly improved by late 1948. African production had been improved to a surprising degree, and although there were still discussions about purchasing thorium from Brazil, India and South Africa, the rich Congo uranium mines were expected to fill an ever increasing percentage of the total requirement.\(^{39}\)

The question of the production of the atomic plants in the earliest years is a most interesting one, especially when checked against what we now know of strategic planning during that period. In this connection Joseph Alsop and his physicist assistant, Dr. Ralph Lapp, are most helpful. Alsop and Lapp referred to a document published by the Congressional Joint Committee on Atomic Energy, entitled "Soviet Atomic Espionage," which reprinted two telegrams from a collection turned over to Canadian authorities by Igor Guzenko, the famous defector from the Soviet embassy code room in Ottawa. The telegrams reflected the work of spy Allan Nunn May and revealed that annual plutonium production in the United States just after the war was about 550 pounds. Also, in October of 1945 nuclear physicist Dr. Nils Bohr told the Engineers Society at Copenhagen that the United States could produce about 6.6 pounds of uranium daily. This was too much uranium, in proportion to the plutonium, so it seemed evident that for a popular audience Dr. Bohr
had lumped both fissionable materials together. He referred to the eventual capacity of the plants, which were still partially under construction at the time, rather than the current output. This would make the total yearly production of fissionable materials, in the Alsop-Lapp calculations, about 750 pounds. How much was this in terms of bombs?

Elsewhere in his unpublished document Alsop states that twenty pounds of fissionable material produced about 50 kilotons in bombs. Since the original "fat man" or Nagasaki type bomb of twenty kilotons had been improved it was assumed that a 50 kiloton bomb would represent a standard small bomb for estimate purposes. Taking the estimate of one and one-half tons of fissionable material for 1946-47 we have 3000 pounds or 150 bombs, averaging 50 kilotons each, by 1948. Since it appears unlikely that more than half the total number of bombs would be considered eligible for a first strike, this figure checks with the strategic targeting estimates we have already examined.

Since the rate of production increased only slightly until 1947, it seems obvious that the total number of bombs climbed slowly from something like a dozen in late 1945 to something like fifty in late 1946 and to 150 or so by 1948. This is not many bombs by subsequent standards, so the Eniwetok tests, the increased availability of fissionable material, and the new plant construction of 1948, together constituted an important promise of greatly increased atomic strength. Alsop states that in the early days there was little urgency in our atomic effort, since almost everyone believed that the American monopoly would endure for a very long time. In the immediate postwar period the program consisted of rather routine manufacture of fissile raw-stuff in the two big plants built in war time. The first big jolt came in 1948 when the Communist coup in Czechoslovakia sent a shiver of alarm through the free
world. The first response to the Czech coup was to order two more reactors at Hanford, in order to increase plutonium output by two-thirds. At the same time certain important additions to Oak Ridge were also ordered. Unfortunately, this kind of construction takes a good deal of time to complete. At both Oak Ridge and Hanford the resulting expansion of production was just beginning in September 1949 when the Soviets exploded their first bomb.

Alsop states that output of fissionable material in 1948 and 1949 could not have risen much above that of 1947, and not until the 1950 production period could the improvements ordered in 1948 have begun to pay off. There were other advantages, however, resulting from the new designs tested at Eniwetok. Senator Edwin Johnson of Colorado, a member of the Joint Congressional Committee on Atomic Energy and a strong advocate of secrecy, managed to reveal on a TV program that bomb yield had been stepped up at Eniwetok from the original 20 kilotons to "six times" that amount, presumably with no great increase in the fissionable materials used.

Since the activities relating to the expansion of bomb production were not widely known or understood, the public in general, seeing no increase in the armed forces, remained largely undisturbed in its increasingly hopeful dream of peace. Air Force leaders, however, were somewhat bewildered by the increases in production of atomic bombs which were not accompanied by similar increases in delivery capability.

Senator Brien McMahon, who became "Mr. Atomic Bomb" in the Congress, wanted to make public the size of the atomic stockpile and other atomic facts so that there could be a general public understanding of the issues. President Truman angered him by vetoing the idea rather abruptly. Many scientists, including Robert Oppenheimer,
agreed with McMahon, but they were opposed by George Kennan and other officials on the grounds, according to Joseph Alsop, "that the facts are too awe inspiring and fear-inducing. The popular reaction, they have argued, would be violent and excessive, perhaps resulting in strong national pressures for preventive war or other ill-considered measures." Whether or not the pessimistic view of the public reaction was the correct one, secrecy was maintained, and in so complete a manner that exaggerated reactions to limited and selective revelations on nuclear matters could scarcely be blamed on the public.

The very small percentage of military men who were in a position to know what was happening in military policy came to see what they thought was the light on the subject of nuclear weapons. Atomic bombs, at first neglected and even shunned, had been emphasized by necessity when frantic demobilization left no other effective military resource. Later, as production increased and unit prices fell, the atomic bomb's cheapness became the major attraction, for it was obvious that without heavy reliance on the bomb the price of slowing or stopping Communist takeovers in Europe would not be paid. Finally when Senator McMahon was able to announce that the cost of an atomic bomb in the new plants was comparable to the cost of a tank, one quarter million dollars, the lesson was clear. The thing to do, for the military services and the individuals within them, was after due protest to accept the new weapon and then to exploit it. The atomic weapons problem and its proposed solutions affected the military planners first.

In the Air Force, the only service that could deliver atomic bombs in the late 1940's, a Board of Senior Officers had to arrive at an interpretation of the implications of the 14.4 billion limited budget.
The Board arrived at the conclusion that the Air Force mission within its definitely limited resources was: a. An air offensive "to exploit the destruction and psychological power of atomic weapons against the vital elements of the Soviet war-making capacity; b. An "austerity" air defense for the United States; c. the maintenance of such component forces as possible, for the "advancement, intensification, and/or diversification of our initial offensive until forces generated from inadequate mobilization bases have become available." The complaining word squeezed into the last priority indicates the unhappy attitude of the board with the first priority "solution." There was general agreement among the military that forces adequate for non-atomic and non-total war were necessary to security, but such forces were scarcely possible under the limitations of the budget.

The most critical and in many respects the most important task, though seldom recognized as such, was the selection of targets. Air Force General Brooke Allen, who became head of the Air Targets Division in 1948, has explained that his unit had the responsibility for developing the best possible target system for the comparatively small number of atomic weapons available. The target system was systematically processed by "many Ph.D.s, Engineers, and Economists...trying to tell me what best use could be made of a limited number of weapons."

The selected target system then had to be approved by the top Air Staff and by the Joint Chiefs of Staff--"that wasn't too easy"--and it finally became the target system for the Strategic Air Command.

This was the "scientific" procedure, but attitudes count as well. Already a group of intelligence officers had been given the task of listing industrial targets for the Joint Chiefs of Staff. With limited
bombs and even more limited delivery capabilities to count on, and no
other weapons or delivery systems of appreciable strength available,
only one concept was possible—to try to "kill a nation" in one cli-
mactic campaign. This came more and more to mean getting all the
impact possible out of each weapon that could be delivered. The
industries and war supplies were located in or near cities in most
cases, so "cities rather than industries were suggested as targets,"
as in the case of Hiroshima, to exploit the full potential of the
scarce weapons. Next in priority, in this first "conceptual" plan,
came installations that were used in military mobilization, then in-
stallations for military supply and support. "It was sort of a shock
to a lot of people when a few began to talk about bonus effects and...
ask what was a city besides a collection of industry."47

The road from Nagasaki, like the road to Hiroshima in the begin-
ning, had begun to curve away from military considerations, and to
follow a course influenced by the concept of efficiency, economy and
maximum effects measured in quantities alone.
Chapter IX--Defense is Cheaper by the Bomb


7. General Spaatz to Secretary Symington, Jan. 8, 1948, Spaatz Papers.


9. Secretary Patterson, Notes on War Department Council, Jan. 15, 1947, Patterson Papers.


23. 82nd Congress, 1st Session, Hearings on the Military Situation in the Far East, pp. 2529-2598.


32. Colonel N. F. Parrish, Memorandum for Chief of Staff, Sept. 1949, Air University.


35. Hearings on Unification and Strategy, 81st Congress, 1st Session, pp. 473-474; Colonel N. F. Parrish, Memorandum for Chief of Staff on manuscript of the Forrestal Diaries, Unpublished, Author's notes.


37. Ibid., p. 374.

38. Ibid., p. 342.


41. Ibid.

42. Ibid.


44. Secretary Symington to Secretary Forrestal, Feb. 25, 1949, Spaatz Papers.


47. Colonel Grover C. Hall, Air University, Feb. 4, 1952, quoted by Robert Frank Futrell in *Air Force Historical Study No. 139*, Unpublished, Air University.
Chapter X

Berlin, the Bomb, and Peaceful Containment

Keep in mind the real capabilities of the potential enemy. We are not engaged in a battle of wits or a guessing game; in the last analysis we must always come back to comparative military strength and position.

General Carl Spaatz, 1948

We must choose one or the other, atomic or TNT, and make our plans and preparations accordingly. To try to straddle both horses will almost certainly result in our not being prepared for either type of war.

Air Force Staff Study for General Spaatz, January 1948

Hello, Willies—along the way
Easy 120 has this to say:
I'm over Brunswick, 53's the time,
Eighty-five hundred; weather's sublime
But my feet are cold, my back is stiff,
And I'm ageing plenty on the old Airlift.

Position report by a Royal Air Force Pilot, Berlin Airlift, 1948

I hope you will give full consideration to my words.
I have not always been wrong.
Nothing stands between Europe today and complete subjugation
to Communist tyranny but the atomic bomb in American possession.

Winston Churchill, 1948

Early in 1947 a member of the Joint Strategic Survey Committee, Major General S. E. Anderson, sent to General Spaatz a memorandum which was remarkably prophetic. Anderson hoped General Spaatz would give his support to certain actions in foreign policy which could be vital to the security of the United States: The strengthening of West Germany; the formation of a federation for the defense of Western Europe; the exclusion of Russian domination from Greece, Turkey, and the Middle East. In addition, General Anderson emphasized the importance of a continuation of the struggle in Korea, which because of the "disastrous" 32nd parallel agreement "is the one country in which we alone have for almost two years battled Communism." This surprisingly prescient document was a short outline of the defense of the West as it would develop for over the next five years. It is an example of how planning by a well-qualified staff produces policies which later are blessed with the names of itinerant high officials. It is also an example of the breadth of thinking in the Air Force and other services as they worked closely with planning staffs of the Department of State.¹

Planning is of value in proportion to the resources that are provided to back up the plans. In the same year, 1947, General Clay in Germany thought the Russians might be preparing an attack. There was only one radar operational in the United States. Some of the fighter defense forces available were moved near the New Mexico atomic area, near the Hanford, Washington, atomic area, and to Alaska. The Secre-
tary of the Air Force flew to Seattle in a last effort to persuade the Boeing Aircraft Company to move to Kansas, but he had no success. How could the United States, which had just won a war, with little advance preparation, possibly fail to win another under the same conditions?²

This blind faith in the blessings of an ephemeral security came to be attributed principally to Air Force leaders who supposedly were interested only in atomic bombs and their delivery. The reality was quite different.

The Joint Chiefs of Staff and especially Air Force Chiefs Spaatz and Vandenberg emphasized aid to threatened nations and the economic recovery of Europe as much as their own military programs. General Spaatz testified to a Congressional committee "The 70 group program should not be reached at the expense of aid to Europe." General Vandenberg went even further to say "I think that the 70-group program, as visualized by the Air Force, with Europe unprepared, would not be as efficient as a lesser number of groups with a sound economy in the United States and a Western Europe that could resist aggression and give us time."³

General Vandenberg was being rather optimistic about the resources that might be devoted to defense by the nations of Western Europe, since no adequate defense force was developed in that area, but Air Force planners supported the maximum defense possible there. A staff study in early 1948 admitted that Russia with half its potential 600 divisions could rapidly overrun most of Europe and Asia, yet it suggested that "allied conventional defense, however small, should be encouraged." Perhaps there could be small holding forces in critical areas, said the staff; navies would be needed to maintain com-
While the situation was being studied the Russians were continually changing it. In early 1948 the State Department intercepted messages to Communists in Western Europe instructing them to lay low and avoid trouble until the Marshall Plan failed to pass the United States Congress. Stewart Alsop wrote at the time that the State Department predicted the lull would last less than two months, and would be followed by a Communist coup in Czechoslovakia, which was exactly what occurred.

Undersecretary Lovett told Joseph Alsop that Secretary of State Marshall's reorganization of the Department along Pentagon lines was working, and that new political maneuvers were taking place. The withdrawal of American troops from Italy had been delayed to stall the Communist drive against the Italian government and to force the Soviets to withdraw their troops from Bulgaria. Both objectives were achieved. When American troops were withdrawn from Italy President Truman promised the government he would not permit its overthrow by outside pressures as had happened in Prague. Tripoli Air Base in Libya was established on that account, and also as a substitute for sending American troops to Greece. North Africa continued to serve as a kind of alternate base area. Alsop reported that General Eisenhower had told him a year-and-a-half earlier, when there was danger of a Communist takeover in France, that "the War Department was actually tremulously making plans to occupy North Africa."5

At the time Walter Lippman was advocating what Stewart Alsop called "letting Britain go through the wringer," which would cause the United States to carry on alone as a major power. Lippman had
also concluded that the cold war was over and the race henceforth would be in terms of actual military power. Alsop suggested a "grimly fascinating" analysis of the military balance of power. America's superior industrial potential, atomic bombs, and sea control would be countered by Soviet ground forces, which we could never hope to equal, and their undoubted ability to capture all Europe and probably the Middle East. Added to this was the newly achieved air superiority of the Soviets, and their German-developed submarines for which no defense had been developed, along with the advantage of geographical position. At the time of Stalingrad the Russians had mobilized more than 600 divisions, as against the top American figure of less than a hundred divisions, and about 70 for the British. Alsop was aware that "the most thoughtful Pentagon people are disturbed by the general assumption that if worst comes to worst, it will be short and easy, thanks to the bomb."  

President Truman backed the State Department's policy of a firmer stand in Europe after the fall of Czechoslovakia. Defense planners assumed he would approve the creation of a force to back the stronger stand without relying entirely upon atomic bombs. This turned out to be a vain hope, but the nature of the plan as reported privately by Joseph Alsop at the time is interesting, especially with regard to the limited role and resources assigned to air power.

A sudden buildup of the weak United States forces was impossible, so phasing was planned. The first phase would provide for the defense of the United States and, if possible, the African and European forces would hope to be able to defend on the Rhine. This "balanced force"—Secretary Forrestal's term—would require the major portion of the in-
vestment, but it could only fight a long and defensive war at best, so it was planned to supplement the balanced force with a nuclear striking force. Russian air defenses were still weak, so a strategic air force armed with atomic weapons would not have to be very large.

Therefore, a minor percentage of total resources will be gambled on the hope that the offensive air striking force can break through the enemy's air defenses, destroy his vital centers, and thus bring the war to an early end. The total force involved will be limited—a few long range air groups altogether. The essential prerequisite, in order to make the gamble a good one, is to have the offensive air striking force ready for instant action. The necessary resources were not provided for this plan, either the "balanced" or the "offensive air" portion, until after the Korean War began two years later.

Western Europe was so vulnerable in 1948 that almost nothing was said about the matter publicly, especially in the United States; consequently, few students of the period have quite understood the military situation that existed then. The official estimates that were kept secret are surprisingly discouraging.

Lt. General Jodl, an outstanding German officer of World War II, reported in 1946 his estimate that as long as the Soviets remained inferior in air power the West might be defended against the five million Red Army soldiers if the Americans and British could withdraw successfully to the west bank of the Rhine, leaving Germany to its fate. Yet 130 to 150 army divisions would be required to hold there. (Here General Spaatz, apparently, scribbled "Where to get them?"") Jodl concluded "The hope is expressed that a military and political understanding may be concluded between the USSR and the democracies. If not, then everything will happen that must happen."
Germany, potentially the most militarily capable nation in western Europe, had to be written off as undefendable until the development of the "forward strategy" plan after the Korean War. Less well known is the fact that England was written off also, and by the British themselves. While the Russians were beginning the blockade of Berlin in April of 1948, Stewart Alsop talked to British General Morgan of the Combined Chiefs of Staff on why the Russians risked war over Berlin. It was on the assumption that all of Europe would fall to the Red Army, "and England, as Morgan sadly admits, be rendered untenable." Morgan thought the Russians might not be bluffing, and if they were not, Alsop concluded, "the British are pretty well down the drain."  

Some three months later Joseph Alsop wrote a magazine piece on the situation in Europe, which was constantly becoming more dangerous. In preparation Alsop had talked to a number of authorities whom he could neither quote nor identify and gained much information he could not divulge. Most of this information was consigned to his notes. Lord Ismay, who had been Churchill's military representative, and who later became Secretary General of NATO, gave Alsop the official British view that England could hold out if the Red Army took over Western Europe. Nevertheless, there were tentative plans for the evacuation of London and for the Government to be set up in Yorkshire, far to the north. British plans included the separation of the Admiralty, the Foreign Office and the War Office by twenty miles or so, for security. Southern England would be written off because there was no defense against the large number of V-2s the Russians were building with the aid of captured German scientists. These mobile rockets, launched
from Normandy or Flanders, would be too easily moved and concealed to be eliminated by air power, and they could make urban areas uninhabitable by repeated attacks. Nevertheless, Lord Ismay believed any attempt to invade could be frustrated by British and American air forces operating from bases far to the north.\textsuperscript{10}

Quite naturally, every effort was made to avoid war and at the same time to avoid losing Western Europe piecemeal as would be the case if Berlin should fall. In April plans for an airlift were discussed, "which, if shot down, will be causus belli." Kremlin watcher Charles Bohlen in the State Department thought the Soviets were bluffing, as they had done in Iran, and also near Denmark. The Russian Ambassador to Italy, Sadchikov, had delivered a tirade predicting the invasion of Iran. Another Soviet diplomat had predicted the coup in Czechoslovakia and had listed Norway and Denmark as next on the Russian list. At the time of the coup in Prague the Soviets held maneuvers at Rostock, just 30 miles from Denmark. But American diplomats had begun to talk back. When Sadchikov visited Teheran for another tirade, the new Ambassador there, John Wiley, told him blandly that the Soviet notes alleging American intervention in Iran were "worthy of the highest and most glorious traditions of Russian fiction, reminiscent of Pushkin's immortal dictum that veracity should not be permitted to stand in the way of art."\textsuperscript{11}

General Omar Bradley, always serious, told Joseph Alsop in April that he was one of a "small minority" who expected war in 1948 but Admiral Hillenkoetter of the CIA agreed with the more popular view that the Russians had two plans, one for an all-out attack and another for waiting out an opportunity to take over Italy. The strong response
from the United States after the Czech coup apparently encouraged the
milder plan. Joseph Alsop asked Bohlen what would actually happen if
the Russians committed overt aggression. Bohlen replied, after hem-
mimg and hawing, that the United States would press the issue at the
United Nations until the effort was obviously hopeless, then demand
aggression cease, then fight.\textsuperscript{12} General Lucius Clay, United States
Commander in Europe, said if he were a Russian general he would invade
now—except for the atomic bomb.\textsuperscript{13}

When the airlift turned out to be a great success there were
numerous stories as to who originated it. The authoritative witness
is Undersecretary of State Robert Lovett who testified that after dis-
ussion with the services, the National Security Council and Congres-
sional Committees, an airlift was decided upon because of the success
of the famous "hu-\textsuperscript{y}" airlift from India to China in World War II.

General Clay, the Army Commander, and General Curtis LeMay, the
Air Force Commander in Europe, originally meant to test the Russian
blockade with an armed convoy. They had received little guidance from
Washington, but at the last minute the airlift was directed as a com-
promise to stall for time. Both Clay and LeMay had told Joseph Alsop
that there was no chance of keeping Berlin supplied by air, and
naturally Bohlen in Washington repeated their view. One reason for
the pessimistic attitude was that the military leaders, including
General Vandenberg, did not want to tie up all available air transport.
In case of war they would not have been able to deploy forces or even
to evacuate their forces from Europe. But there was no war, and the
surprising success of the lift "may well have saved the peace of the
world, however temporarily."\textsuperscript{14}
When the blockade was first threatened, the Joint Chiefs of Staff recommended a nine billion dollar supplemental appropriation to support a proposed 70-group Air Force along with Army and Navy units in "balanced" style. Forrestal requested a study based on three billion dollars instead. Truman forwarded this request to Congress, but directed the Air Force not to expand appreciably before a review of the matter in the fall. Nevertheless, in a Sunday meeting, the Defense and State chiefs agreed upon a firm stand in Berlin and President Truman approved the firmness "in his chirpy way," but the decision was not an easy one. There was serious risk of war, and the United States was almost totally unprepared for war. Canadians and others who had to be told our plans heard only that the United States would counter an attack by launching "sporadic retaliatory raids."\textsuperscript{15}

Following this decision for a firm attitude the only important action that could be taken was to send on July 2 two squadrons of heavy bombers, B-29s, to join another squadron already at Munich with the occupation forces. In mid-July, two groups of B-29s were sent to England. The movement of the atomic-capable B-29s to England was significant, since it was the beginning of at least a twenty year stay for American strategic air units in Britain.\textsuperscript{16}

By late July General Clay reported most optimistically to Admiral Leahy that he could retreat past the Rhine if attacked and remain there for some time, although his losses in Berlin would be serious. He, too, was worried because the airlift would reduce the number of planes available for military operations.

Secretary Forrestal had no illusions of the possibility of defending on the Rhine. He tried to get Secretary of State Marshall
interested in the fact that there were only two and one-half American divisions in Europe, only one of which could move rapidly. Marshall replied there was "some chance" of containing the Russians in Western Europe and that "we were much better off than in 1940." Despairing of help from Secretary Marshall, Forrestal tried to get assurance from the President that the bomb would be used if necessary. Although Forrestal himself seemed at first to be of divided mind on the matter, the President finally "made it clear he would not hesitate to use the atomic bomb if he considered its use important to the security of the United States."17

Forrestal in his diary quoted Army General Alfred Greunther as saying that an atomic bomb offensive from England was the only strategy "possible within the President's budget. No more could be done." In September, while Forrestal was pressing the President on the atomic bomb decision, the National Security Council advised the President that there was no necessity to decide the question at the moment.

During the earlier crisis in July President Truman had told the Atomic Energy Commissioners and the Service Secretaries

I don't think we ought to use this thing unless we absolutely have to. It is a terrible thing to order the use of something like that--that is so terribly destructive, destructive beyond anything we have ever had. You have got to understand that this isn't a military weapon.

Lilienthal wrote that he would never forget that particular expression.18 Perhaps the President had not forgotten that just three years earlier he had said that the bomb was a "military" weapon, used against a "military" target--a city.
By September of 1946 it appeared that the airlift might succeed, so the Russians adopted harassing tactics, interfering with the transports by flying their fighters in the air corridors. Fighter escort was planned, George Kennan wanted to call up the National Guard, Bohlen was worried and Lovett was grim. There was a new fear that the Soviets might want war after all, though they had not recently increased the third of a million troops stationed in their zone of Germany. State Department polls showed more than four out of five Americans favored an armed convoy if necessary, but nothing was done to strengthen the armed forces and thus to indicate there might ever be any alternative to using the atomic bomb in case of attack.\(^\text{19}\)

General Clay and General LeMay had been told not to use an armed convoy, but guidance on what to do if they were attacked in Berlin was still meager. In late September of 1948 they were visited by President Truman’s friendly Air Force Aide, Major General Robert Landry, who reported that the two Generals recommended a formal military alliance in Western Europe to plan for defense against Russia. They also presented an extremely modest requirement for a port and a supply line in southern France. They favored staying where they were in West Germany and Berlin until attacked, but had no illusions about staying there afterward. On their own they had made plans to "fall back" to an air base in Belgium and another in France but they would need more facilities than these. This was a tentative beginning for the elaborate NATO "infrastructure" complex that would be developed after the Korean War.\(^\text{20}\)

As winter came on, bringing hard days and a real test for the airlift pilots flying through north European weather, Stewart Alsop talked
with General Al Wedemeyer, recently returned from China and now head of the Army's potent Operational Plans Division. Wedemeyer wanted to withdraw from Berlin, for reasons that seemed entirely military: the position was militarily untenable, the airlift was barely sufficient, the West was unprepared for war, and the bulk of American military airlift so committed that four-fifths of it would be destroyed at the outset of a war. Said Stewart Alsop: "The impression I got was that the airlift will be kept going until after Dewey's election, and that the final choice will be thrown into his lap, God help him."

The election was casting its shadow ahead, but few recognized who the shadow was. Alsop learned from Drew Pearson that Truman complained "the public has to rely for its information on what is going on in his Administration on Drew Pearson and the Alsop brothers and that he wants to write a straight history of his Administration but never finds the time." He will, after November, Alsop observed wrongly, but he added rightly "Truman is no Roosevelt, but history has been made in his administration, at least as much as in FDR's."

Regardless of reservations about its desirability, the airlift was a hard-earned success. It droned on through a bitter winter in spite of politics, elections and occasional radio interference by the Russians. The pilots and crews, many of them veterans of the bombing of Germany, were proud of their mission of mercy even when they were hauling coal. The cost was 100 thousand dollars a day, and noted journalist C.J.V. Murphy called it "Rolls-Royce delivery to the greatest poorhouse in the world." Sixty-one crew members were killed before the blockade was lifted. Berliners erected a graceful monument to them, an inverted tripod form which represented the three air cor-
ridors approaching Berlin from the open West. With the war three years over, the Americans could enjoy the wry humor of the German maid's retort to an admonition against wasting food which had been so difficult to fly in: "Your Air Force had no trouble flying in plenty of bombs during the war."^22

The question of whether an armed convoy would have succeeded in reaching Berlin, and what might have happened after it did or did not succeed, has been debated over the years. The gap between the convoy and the atomic bomb, which was the only next step possible, was so great as to defy analysis. Primarily the airlift was an effort to allow the Russians to save face by backing down gradually. That they would do so was the prediction of the Russian experts in the State Department. Their predictions were so uncannily accurate as to indicate they were possibly aided by the famous defector inside the Kremlin, Penkovskiy. All intelligence, however, requires evaluation and interpretation, and the State Department experts knew their subject well.

There was a new "charmed circle" in the State Department in 1947. In Stewart Alsop's words, it was made up of men "who were smart enough to study Russian and concentrate on the Soviet Union" when they first entered the foreign service. "These men suffered eclipse during the wartime appeasement period, but now they are really making our Russian policy, which means in effect our foreign policy." Alsop mentioned two close friends, but subsequent events prove he spoke accurately when he said "In this very closed circle the two brightest starts are Kennan and Bohlen."^23

As Bohlen later wrote to a mutual friend of his and of Kennan, there were other good men in the Russian field--Durby, Freddy Reinhardt,
and Eddie Page—who were obscured by the fame of the two leaders. Some conservatives, including a few military men, were suspicious of the lot. Caustic General Ennis Whitehead, for example, judged Kennan "bright," but scarcely "tough enough mentally to recommend realistic operations." Yet the Marshall Plan and the Containment Policy proved to be fairly realistic operations. The defection of Yugoslavia from Kremlin control, though the event was overshadowed by the Berlin crisis, "proved" the policy of peaceful containment would eventually defeat the Communist plan.

Since Harry Truman was basically a domestic politician from the Midwest, his rapid adaptation to foreign policy in a critical period was phenomenal. It was achieved largely through his essential humanity and his willingness to let experts do their jobs. After a disastrous experiment with another domestic politician, James Byrnes, Truman went along quietly with the men who had studied the problem. Foreign policy was made for nearly three years "without serious reference to his views or wishes." After his reelection there were those around him who kept saying "George, be a King," but by this time the success of the Marshall Plan-Containment Policy line already taken was obvious.

That the Marshall Plan and the Containment Policy were mutually interdependent tends to be forgotten. Confidence in European recovery could not be restored nor the necessary investments stimulated until it was established that the Red Army would not move further to the West after it became established in East Germany. By 1948 it was clear that the bomb was the only deterrent, but also that it was a potent one. In the Greek crisis of 1947 Lilienthal had already understood that the new Truman Doctrine implied the protection of Greece and other nations from
Soviet coercion—"whatever that may take, including atomic bombs." 27

Kennan and his colleagues at the State Department had argued for at least two highly mechanized mobile divisions to help contain minor Communist incursions or threats in Western Europe. The Joint Chiefs of Staff had the same desire, but were compelled to reply that the austere military budget made it impossible to create even so small a force as two divisions. Forrestal also agreed with Kennan, and it was Forrestal who arranged for the publication of Kennan's famed "Mr. X" piece after he had read most of it in a message by Kennan. 28

Indeed, it was the support of Forrestal and of the Navy that had encouraged the commitment in the Eastern Mediterranean, which Army leaders such as General Eisenhower regarded as too far away. For that area air and sea power, under the protection of the bomb, were the only possible reliance, and tight Truman budgets eventually made air-atomic power the only reliance in Western Europe as well. Truman explained to Lilienthal that the atomic bomb was "the mainstay" and "all he had," and that the Russians would "probably have taken over Europe a long time ago if it were not for that." 29

Although the Containment Policy had to rely, because of budget problems, more completely on the bomb than the architects of the policy had hoped, its ultimate success was dependent upon the realization of an even greater hope. The central thesis of the policy was that once "positions of strength" had been created around the periphery of Communist domination, "inner contradictions" would cause the Soviet power to be peacefully "rolled back." With the Yugoslav defiance of Kremlin control, it appeared that this was beginning to happen. The new cry of the containment advocates was "local self-determination." "Naturally
They are jubilant, because their theory was just a theory, without a
shred of proof, until the proof came along."

Kennan was so elated over the hopeful developments that among
friends "he began to accompany his talk on his Russian guitar."
Rohlen and Kennan believed the development of Titoism was a sign of
schism in the Kremlin. There was much speculation that the East
European satellite governments would have to request military support
from Mother Russia and that the Kremlin intended, had it not failed at
Berlin, to incorporate the whole of Eastern Europe into the Soviet
Union.31 American military men remained suspicious of Tito for years,
thinking he might switch back to Stalin after we had strengthened
him.32 Tito and his relative independence did, in fact, survive, but
as an isolated exception rather than the beginning of a trend.

Although no one in the State Department had predicted that the
Tito defection would come out of the mysterious Cominform meeting, a
preconceived theory to explain it was almost as impressive as a
specific forecast. Six months afterward, Stewart Alsop's research for
an article on the National Security Council revealed to him the extent
to which Kennan "has, in fact, been making our foreign policy. All
the major NSC papers, on which decisions are based, are essentially
his handiwork, and the NSC and the President always approved them
without change."33 Kennan did not remain long in the government ser-
vice, but left the State Department, so Alsop thought, primarily be-
cause Dean Acheson did not push his plan for a special relationship
between the United States and Great Britain. Although Bohlen always
minimized any difference between them, he was more inclined to go
along with other European nations, especially France, than was Kennan.
Kennan considered running for a Senate seat in later years but after his short term as Ambassador to Russia he remained at Princeton University where he wrote skillfully and with influence. 34

We have seen that before 1948 no alliance nor even mutual understanding existed in Europe for defense planning among the Western nations. A diplomatic move had been taken with the signing of the Brussels Pact in March of that year. Kennan was careful to make another effort toward bringing about a Soviet-American understanding before even the most cautious American support was announced for the Pact. The note to Russia was conciliatory, so that the Soviets had to distort it in order to make a propaganda rejection of its friendly tone. General Lyman Lemnitzer of the United States Army had participated in the pact negotiations as an observer only, but he reported to Admiral Leahy that his appearance there "put new life" into the plans for a Western Union of European nations. 35

The Truman Doctrine and its associated Marshall Plan had instigated hope and effort in Europe, but the physical commitment involved in the Berlin Airlift had given the European defense and recovery program a convincing reason to proceed. Yet there were cross-currents in the United States associated with the coming Presidential elections. Publisher Roy Howard, a strong supporter of Governor Dewey and of General MacArthur, wrote General Ennis Whitehead that the American public in 1948 was "allergic" to foreign news, but Whitehead replied with a defense plan in which he said candidate Thomas Dewey had taken great interest. Whitehead did not advocate an alliance with Japan, but would have preferred basing the B-29s in North America and on other islands of the Far East, relying on aerial refueling for an
atomic bomb campaign of 50 or 60 targets if it should become necessary. Yet General Whitehead still had faith in the United Nations, which he thought could be "strengthened and made decisive" once the Russians were influenced to stop their obstructing. Whitehead hoped Dewey would choose MacArthur or George Kenney to replace Admiral Leahy as Presidential Chief of Staff. Unfortunately, Whitehead's most convincing correspondent reported that the Air War College had found General Kenney's preoccupation with such gadgets as caterpillar landing gears and wilderness refueling bases to be naive and unconvincing. He was alarmed also that Kenney's deputy, General McMullen, was ruining the Strategic Air Command's morale with his "soldierly" emphasis on uniforms and procedures rather than on training. The promise of leadership, military or civilian, in the Dewey entourage was not great.

36

The face of the Republican Administration might have proved happily deceptive. The leadership around Truman changed from men of distinction toward "government by crony" in his second term. John Foster Dulles, who was close to Dewey, appeared unsatisfactory in 1948 to the Alsops and others because of "his legal mindedness, which leads him to suppose that if something is contracted for (i.e., European Union) it is disposed of; and above all his religiosity, which leads him gravely to underrate the importance of raw power." Dulles had been wrong about Hitler and had wanted to stay out of World War II until the last moment while "prating about preserving the United States as an Island of Health in a sick world." Now, said Joseph Alsop, he talks about dividing Germany into a lot of little states, sounding "like Walter Lippman on a not very good day." Alsop thought
Clay may have been propitiating Dulles when he suddenly handed back the Ruhr industries to the German industrialists who had been Dulles' clients. Dulles also had supported de Gaulle in France as a means of "stability" there. De Gaulle was more consistent. He announced "in so many words," according to Alsop, that his first act on coming into power "would be to knock into a cocked hat the whole West European pattern we have so laboriously and expensively built up."37

Neither Mr. Dewey, Mr. Dulles, nor General de Gaulle was destined to prevail in 1948, so the West European pattern and other patterns associated with the State and Defense departments of the Truman administration continued without radical change. In his inaugural address of January 1949 the reelected president endorsed collective defense of the North Atlantic nations, along with a "point four" program of aid to underdeveloped nations. His speechwriter, Clark Clifford, had pulled that idea out of a State Department file at the last minute.38

Neither would the views of General Whitehead prevail. Rightly or wrongly he and a few others, both civilian and military, felt that the whole system of gambling on weak allies everywhere was a mistake, that once the Russians threatened with a bomb of their own these allies would capitulate (France), or remain neutral (Britain), leaving the United States more exposed than ever. "We must settle this thing before 1951. In the settlement, should war come, western Europe will probably be overrun. We cannot prevent that. We would be foolish to dissipate our forces to try to stop the western rush of Soviet troops." The Red Army had moved fifteen miles a day against the Germans, and western Europe would be easier for them. Strangely enough, General Whitehead strongly favored the employment of atomic bombs, if necessary
to avoid defeat, while Admiral Leahy just as strongly opposed. Yet they agreed that the effort to contain Soviet power around its perimeter was militarily unwise. There was seldom complete agreement anywhere. The problems were complex, and the proposed solutions unsatisfactory and bewildering.\textsuperscript{39}

With military views so diverse, it should not be surprising that the President's attitudes were mixed and contradictory. In early 1949 Lilienthal briefed him on how significantly the atomic stockpile had multiplied in two years since January of 1947, when it had been so tiny. Lilienthal then forecast for the President the growth of the stockpile over the next two years. "His face was a picture and his eyes, enlarged by his glasses, as bright as I have ever seen them. 'Boy,' he said, 'we could blow a hole clean through the earth! Then he said 'Wouldn't it be wonderful when Jan. 1, 1951 comes around if we could take this whole business and dump it into the sea?''

Lilienthal assured the President that all the stored energy would be useful for peaceful purposes if war could be avoided. This pleased Mr. Truman and he went on to discuss the views of those who "think this is just another bomb." He began to talk with enthusiasm of the great possibilities of nuclear energy, but with regard to the bomb, the President concluded, "we will never use it again if we can possibly help it, but I know the Russians would us it on us if they had it."\textsuperscript{40}

Strangely, almost nothing was being done to prepare against the time, which proved to be only a few months away, when the Russians would indeed have the bomb. Similarly, almost nothing was being done to make its use less likely in the immediate future. The President had
other problems, domestic ones, and other advisors with axes to grind for the home folks. Shortly after the election Joseph Alsop reported that Secretary of the Treasury John Snyder and Presidential Assistant John Steelman had persuaded Truman to sacrifice defense to business-as-usual and to clamp a 15 billion dollar ceiling on the defense budget. This was a shock to the military and diplomatic planners, who had counted on some relaxation of restrictions after the election and the "foreseeable row between the services over their share of the reduced pie" ensued.\footnote{41}

There were more unhappy consequences than the services and their pie, as Alsop soon recognized. The services were having to sacrifice combat effectiveness and to discard all plans for a more stable defense posture that would discourage such expensive and dangerous challenges as that of Berlin.

The outlook is very grim, because Truman being the sort of little man he is, had already made up his mind without clearly understanding the issue. Furthermore, victory on this issue will give all the little cockroaches around Truman the permanent, prescriptive right to intervene in foreign and defense policy; and they will be motivated by domestic political considerations."

Alsop "came close to a real row" with his friend Clark Clifford on this subject. "His line was domestic politics first, foreign policy last" but at least he had not joined the Snyder-Steelman effort. Alsop expected damaging consequences in Europe and elsewhere at this show of weakness in national defense, particularly since the time was drawing near--two years, he had been told--when the Soviets would have the bomb. A week later he reported happily that the "row" had brought Clifford to the right side. There was still hope, vain hope, that Truman would relent.\footnote{42}
One of the reasons why the Alsops were so disturbed by the military budget limitation was revealed by a Pentagon operations officer in some very off-the-record notes on a military strategy article which Joseph Alsop prepared for Life magazine. The notes indicated that the military forces, and particularly the Air Force which would have to accomplish the major task, were shockingly unprepared and unequipped to back up any policy of firmness. The notes said that although the European Recovery Program of investment had begun, nothing had been done on the "strength side." The stock of atomic bombs was still far too low for a major war and the Air Force was far too small to deliver conventional bombs over great distances in effective quantities. The Soviet Air Force could dominate all bases in the Middle East. Further notes from "Anderson"—probably Major General S. E. Anderson who was Air Force Deputy for Operations at the time and who knew the Alsops—stated that air refueling would have to be used even for the bases nearest the enemy. The bombers would have to rely on deception and maneuver rather than on formations for protection, Anderson said. Admiral Leahy opposed use of the atomic bomb and General Groves advocated a delay of four to seven days after an ultimatum. One, two or three bombers in each squadron might carry atomic bombs with seven or eight others carrying a light bomb load to permit greater range and indirect routing to avoid interception. On that rather tricky basis the 70-group program, which contained only 20 groups of heavy bombers, could deliver all the atomic bombs available in one campaign. Once the stockpile was expended there would be nothing to do but wait for replacement bombs at a slow rate of production. About 500 aircraft would be sufficient to carry out rapidly the
atomic phase of the war, but of course these were not available in 1948, nor would they be provided under the budget.\textsuperscript{43}

In addition Alsop recorded

some of the data I have uncovered would make your hair stand on end. Item: we have only 3 teams to assemble the A-bomb, and until this bottleneck is reamed out we are virtually defenseless. Item: the obstinacy of that aged snapping turtle, Admiral Leahy, has prevented agreement on any plan which includes the use of absolute weapons as an assumption, which leaves the planners hanging in the air. Item: There is still no overall, agreed American war plan. A plan of sorts has been adopted 'for planning purposes' which simply means the services have not reached agreement and have therefore agreed to disagree. Nonetheless the basic concept...is generally accepted, except by Leahy.\textsuperscript{44}

These were but a few of the confusions and frustrations that faced the military leaders during the years when nothing was made ready but the bomb and even the bomb was not ready. As Rostow expressed it, the task of the professional military was to insure that Russia would not use its ground force preponderance without a chance of defeat. Yet they felt the chance of defeat for the enemy was small indeed when our own forces were given neither the resources to accomplish one major task nor any guidance as to just what they would be expected to do, or permitted to do.

Into this picture a new element was introduced as the Berlin airlift ended successfully in May of 1949. Before the House Committee on Foreign Affairs General Bradley, the newly established Chairman of the Joint Chiefs of Staff, advocated a mutual military assistance program in which the United States would be charged with strategic bombing responsibilities, and first priority would be given to atomic bomb delivery. Tactical air forces and air defense forces would be provided by England, France and other countries in Europe. So began the so-
called "Air Force emphasis" on strategic bombing. Its purpose, of course, was the general intent to provide a shield behind which a European army and tactical air force could be built before the Russians got the bomb.⁴⁵

Shortly after this new and ostensibly temporary priority for strategic air, General Alfred Gruenther replaced General Albert Wedemeyer as head of the Army's important Operations Plans Division. Gruenther told Stewart Alsop that the Joint Chiefs of Staff hoped for an 8 to 12 billion dollar military aid program over five years that would put Western European Union "in a position where at least part of Europe could be held by the time the USSR gets the bomb."

Gruenther doubted the money would be provided, and feared a ground-swell of isolationism in America which might become a tidal wave leading again to weakness and to war. No one could foresee that within a few months the Korean War would begin and that Congress would soon appropriate foreign military aid at more than eight billion a year, still without producing a force that could hold the Red Army unless aided by the bomb.

The Joint Chiefs of Staff, said Gruenther, estimated the Russians could put more than 300 divisions in the field within a month and 500 within a year. The Soviets had more than twelve thousand operational planes, including many first rate jets, and their heavy tank and artillery replacement program was nearing completion.⁴⁶ This was the period in which the United States ground forces could not obtain funds to re-model or maintain more than a very small fraction of their old World War II equipment.
The plan for rearming Western Europe began to depend more and more on Germany. At the time of the Berlin Airlift it was assumed that Germany could not be rearmed without provoking the Russians to war. General Clay as well as French Premier Bidault and other Europeans were of this opinion. But Russia had begun to arm East Germany. So much confidence was gained from the Airlift, and from the growing American atomic stockpile, that within a year German rearmament was already a plan. General Bradley had been talking about it, off the record, around Washington, and famed British General Bernard Montgomery began proposing ten German divisions. There was a catch to this plan, however. The Germans were "interested in deterrence, not defense." Germany came to be the only nation specifically included in the NATO perimeter. The possibility of a "limited" war fought across their narrow nation had no appeal. They would become partners, however, in a "forward strategy" along their own borders and necessarily behind the sheltering bomb, so that their efforts would mean more than a suicidal defense in depth across their nation and to the Rhine.

For the rapidly developing and necessary plan for rearming Germany, reliance upon the Strategic Air Command and its "absolute weapon" became even more pronounced--temporarily, of course, as always. Along with continuing budget restrictions, this development began to swing Air Force thinking away from any idea of using conventional air attacks against increasingly air conscious Russia. It was agreed that more than one thousand heavy bombers, the number used against Japan, would be the minimum necessary for any effective operations against Russia, and it was not possible to get even the 500 necessary for a
thorough atomic attack. In addition, the cost of aircraft was rising, from 200,000 dollars for a simple B-29 to a million for the jet bombers which were becoming necessary against the jet fighters being built by the thousands in Russia. The only hope for strength behind which the conventional rearmament of Europe could be achieved was an atomic strategy.

Great Britain, caught in a squeeze between politics and economics, moved in the same direction—arming behind the bomb—first under American atomic protection and later, so it was vainly hoped, under her own. Labor Leader Sir Stafford Cripps assured Forrestal that Britain was placing its reliance on the development of fighter planes and on serving at the main base for American air power, since "the chief offensive against Russia must be by air." General Spaatz in 1948 learned from Air Marshal Tedder that the British visualized a strategic air force "to meet the world situation as they see it." In 1947 the New York Times had advocated a world air police force under the United Nations, and called it "Pax Aeronautica." After Russian interference with all such plans, it had become obvious that "Pax Aeronautica" would have to depend on the United States with some help from Britain. Considering how little the United States Government was willing to pay for the global honor and its almost complete reliance on the bomb, "Pax Atomica" would have been more accurate.
Chapter X--Footnotes


2. Author's notes.

3. Robert Frank Futrell, USAF Historical Study No. 139, Unpublished, Air University.

4. Air University Staff Study for Chief of Staff, USAF, Mar. 5, 1948, Spaatz Papers.


15. President Truman, Memorandum to Secretary of Defense, May 13, 1948, quoted by Robert Frank Futrell, USAF Historical Study No. 139; Joseph Alsop to Martin Sommers, June 29, 1948, Alsop Papers.


17. Colonel N. F. Parrish, Memorandum for General Vandenberg, subject "the Secret Diary of Mr. Forrestal," July 26, 1951, Unpublished, Author's notes.


32. Stewart Alsop to Martin Sommers, March 1, 1949, Alsop Papers.


42. Ibid. Also, Stewart Alsop to Martin Sommers, Dec. 7, 1948, Alsop Papers.

43. Notes from "Anderson" attached to manuscript for If War Comes, Alsop Papers.

44. Joseph Alsop to Martin Sommers, June 8, 1948, Alsop Papers.


Chapter XI
The Great Flattop Mutiny

Each service was virtually forced to attack the validity of its sister service's share of the budget in order to have a chance of increasing its own.

Demetrios Caraley

The Navy had to seek a role in the growing rivalry with Russia, and pinned its hopes on its ability to reach the enemy with atom-armed planes flown from the deck of a 65,000 ton "super-carrier" of astronomical cost.

Carroll Quigley

Since it has been stated that military men are unable to reach any fundamental agreement on the art of war it seems very probable that civilian thought will go to work to help them.

Major General John Samford

Service strategic doctrines tended to follow the battle for new weapons and functions rather than to be the source from which they were derived, the most notable example being the manner in which the Navy's assault on strategic bombing died away with the acceptance of the super carrier.

Walter W. Rostow

The great flattop was the 65,000 ton Navy super aircraft carrier "United States" which was to cost 188 million dollars. The keel was
laid in April of 1949 and construction was cancelled the following week by new Secretary of Defense Louis Johnson. At about the same time money was made available for the Air Force to buy 49 B-36 Very Heavy Bombers in addition to the 95 already ordered. What happened as a result of these two events has been summarized by General Nathan Twining who was Vice Chief of Staff of the Air Force at the time:

Some officials of the Navy and of Congress decided to attack the B-36 as a "billion dollar" blunder, hoping to stop the program and thereby release monies for what they sincerely believed to be more important defense requirements. So virulent were the attacks against the Air Force and the contractor...that the House Armed Services Committee was called upon in 1949 to conduct full-scale hearings on the plane and the backstage charges.  

Anonymous charges that senior Air Force officers had been bribed to purchase the B-36 bombers were widely circulated.

Under the direction of Harvard Law Professor W. Barton Leach, Air Force leaders defended themselves and their new weapon so successfully that the outcome of the investigation frustrated the hopes of the Naval officers who had instigated it. Yet a legend was created which continues to deceive even careful historians such as Carroll Quigley to the effect that the B-36 was "discredited." In fact, the Congressional committee found "no scintilla of evidence to support the charges, reports, rumors, and innuendoes" but "compelling evidence that the Air Force selected and procured this bomber solely on the ground that this is the best aircraft for its purpose available to the Nation today." The number of B-36 aircraft on order was later more than doubled.  

Despite the apparent simplicity of its purposes and the clear-cut nature of its outcome, the episode variously known as "The B-36
Investigation," "The Admiral's Mutiny," and "the Revolt of the Admirals" has remained one of the most misunderstood and mystifying public events in American military history. While it has often been cited as a defiance of civilian authority, the peaceful rebellion was more precisely an attempt to enlist the aid of the Congress and the public against the actions and policies of the Executive branch of the American government. In the decade prior to World War II, similar though less dramatic efforts in the same direction were made by elements of the United States Army and their friends in Congress to resist the growing power of the Army Chief of Staff.

The "revolt of the Admirals" presented a second Navy challenge to the purposes and principles of service unification, and a tentative depreciation of the atomic bomb as a weapon. But it was far more important as an example of how a determined and somewhat desperate minority within a military service can temporarily dominate the service. Accounts of the personal struggles between two elements within the United States Navy have recently become available which help to unravel some of the persistent mystery behind the strange episode. Before examining these accounts it may be well to review a few circumstances underlying the traditional Navy-Air Force rivalry.

Since the principles of the great naval theorist Mahan are in most respects as applicable to the "great air ocean" as to the oceans of water it was inevitable that there should be competition between sea power and air power.\(^3\) General William Mitchell's struggle for air power soon "took on the character of a challenge to sea power," but until the long range bomber appeared at the end of World War II seaborne aircraft were necessary for air attacks across thousands of miles
of water. The air threat to the Navy's historic position as "first line of defense" developed only when bomber ranges became intercontinental. The first such bomber was the B-36.

In January of 1947, a few months before the first B-36 was delivered to the Air Force, Admiral Leahy learned from Secretary of the Navy Forrestal that senior air officers of the Navy wished to start a "protective campaign" to prevent the establishment of a "Department of Air." This was, of course, part of the Navy's struggle against unification and an independent Air Force. The struggle against true military unification was eventually won by the Navy when the services were tied together by the civilian bureaucracy of the Office of the Secretary of Defense. But the Navy effort to block the independence of the Air Force had failed.

Elements of the Navy did not cease to fight. In August Commodore Wardaman of the U.S. Naval Reserve, an active lobbyist for Navy interests, called on Admiral Leahy to inform him of a move within the Navy Department "to obtain the appointment of a Chief of Naval Operations who will support the Navy's needs and ideas that are in conflict with the provisions of the law unifying the Army, Navy and Air Force under a Secretary of National Defense." Admiral Louis Denfeld, the likely candidate, was not considered sufficiently belligerent.

It was unfortunate, though perhaps inevitable, that the Navy's attitude in this critical period should have been so difficult. The Army fared somewhat better in spirit, though not materially, by its efforts to make unification work. In a directive to all Army troops on the eve of the separation of the Air Force from the Army, the genial Chief of Staff wrote that the new Air Force "will in all ways continue
to be treated as members of the 'Army Family.'" Then Eisenhower added, wistfully, "I am equally anxious that a similar relationship be achieved with Navy personnel." Some of the difficulty of being friendly with the Navy arose from the personalities of Navy leaders. Frosty Admiral Ernest King is best remembered for his theme "any step that is not good for the Navy is not good for the Nation." To succeed austere Admiral Nimitz the Navy did not get the militant Chief of Naval Operations that Commodore Wardaman had demanded, but Naval Aviator Admiral Arthur W. Radford stepped forward as its champion and proved to be a no-holds-barred fighter. Radford had spent a great portion of his life fighting the "battleship admirals" within the Navy for recognition of Naval air power. It had not been an easy struggle since Navy air was far less independent than Army air prior to World War II. An air-capable Japanese navy was required to help Admiral Radford and his flying colleagues make their arguments convincing. Naval Air rose from stepchild to dominance in the United States Navy in just five years of war.

The United States Navy resembled most military organizations in its devotion to doctrine. Before the battle of Leyte Gulf commanders were reminded in their orders of what was thought to be the Mahan doctrine that the principal object in war is always "to destroy the enemy's fleet," an attitude that almost caused disaster as Admiral Halsey pursued a decoy force instead of covering the Leyte landing. A more damaging doctrine, from the standpoint of an airman, was embodied in orders to Admiral Pownall before his attack on a Japanese-held island. Pownall was instructed to attack shipping first, then aircraft. He "had a rough time from the aircraft, and had to pull out."
Later in the war it was finally learned "that the first priority was always aircraft." 8

No one seriously questioned that air was dominant in the Navy after the war. By 1948 there were eleven carriers and only eight light cruisers left in the active fleet. But efforts to operate fast and heavy jet aircraft from the old carriers were dangerous and frightening. 9 A new jet attack bomber designed to handle atomic bombs was flown in 1948, followed by another model designed for a 2000 mile range. These new and heavy jets would require a larger carrier than any in existence, and this was the reason why the super carrier was such an issue. 10

There were serious doubts in all quarters, including the Navy itself, as to whether the super carrier and its accompanying protective force could be worth its cost in the small military budget of the time. Stewart Alsop wrote in late 1948:

I have submitted myself to the Navy's pro-super-carrier propaganda, and come away more than ever convinced that it is a monstrous piece of nonsense. It will cost a fantastic sum, planes launched from it will have a shorter range than planes from bases available to the Air Force, and it will not be ready for six years, by which time the Russians will probably have the bomb—and even if they don't the Navy has no real protection against the Type 21 submarine. I'm deeply convinced the whole project is simply designed to salve the wounded vanity of the Admirals, who find themselves with no potential enemy to fight. Someone ought to stick a bloody great pin in them—the difficulty of course is, to find a sufficiently adroit and informed pin-sticker. 11

If Alsop himself could not stick the pin adroitly, no one else was likely to do so.

At the same time a somewhat improved B-36 had already flown to an altitude of 40 thousand feet, above most fighter planes of the time,
and showed promise of further improvements. Younger naval aviators were inquiring in considerable numbers about transfer to the Air Force, a move which was forbidden by provisions of the "Unification" Act. In this atmosphere the Navy sought to claim a share of future strategic bombing by advocating "floating mobile air bases off hostile shores to deal shattering blows at an enemy's industrial potential." General Spaatz said "this sabotages all agreements." Spaatz had participated in reaching the agreement that no service would seek forces to duplicate the forces or functions of another service. Strategic bombing had been assigned to the Air Force.

The debate on the vulnerability of carriers became heated. Arguments as to whether aircraft carriers could survive against land-based air power in the Mediterranean and elsewhere continued. General Lauris Norstad, Air Force Deputy for Operations, wrote General Spaatz in early 1948 that the Navy had "admitted its inability to stay in the Mediterranean for any protracted period of time without strong land-based air support." General Whitehead in Japan wrote that General MacArthur opposed the Navy's desire to pull most of its forces out of the far Pacific in an emergency. General Spaatz had explained to Director of the Budget James Webb, that objections to strategic bombers for the Navy derived not from the fact that they would have wheels, since all carrier planes had them, but because they would constitute a duplicate force, requiring duplicate bases and duplicate support to carry out a duplicate mission.

Spaatz was reported to have answered a question off-the-record by saying that an aircraft carrier was indeed maneuverable since it could turn in three directions, right, left, and down.
Admiral Blandy and General Groves admitted that only a B-29 could deliver an atomic bomb but Admiral Blandy insisted humorously that a B-29 could fly off a carrier "if there is enough wind." General Spaatz reminded Secretary of the Air Force Symington that even without the B-36 and without refueling, the Air Force's B-29s and B-50s could reach the important targets on one way flights, if necessary "which would be less suicidal than applying strategic air power from the decks of carriers floating in the Mediterranean or other waters adjacent to the Eurasian continent."\textsuperscript{17}

Even when the Air Force tried to be conciliatory, which was not always, it got little credit for sincerity. Joseph Alsop later wrote:

Our Army and Navy, ever since the first Atomic bomb was exploded, have deeply feared a national strategic concept in which the Air Force would play a wholly dominating role. Therefore spokesmen for both these services have long and loudly insisted that strategic bombing cannot bring either victory or defeat. Even Air Force leaders pay at least a token tribute to this view, although this is often mere lip-service, a spurious concession to peace in the Pentagon.\textsuperscript{18}

The Air Force was more inclined to concede rhetoric than resources. Deeply conscious that they were expected to achieve the victory in any new war, Air Force leaders were disturbed by their own unreadiness and by the Administration's effort to keep peace in the military family by splitting the budget more or less equally. General Spaatz's staff complained that the old formula for division of aircraft procurement was 60% of the total number for Army air, and 40% for Naval air. The aircraft weight was 78% Air Force. In World War II the Army Air Forces accounted for 72% of enemy planes destroyed, suffered 84% of the total American airplane losses, had 84% of the total air personnel, and purchased 71% of the aircraft. In 1947, however, the Air Force
purchased only 51% of the aircraft, and only 63% in fiscal 1948. For 1949 the split was 60%-40%, with Navy awarded two-fifths of the total funds rather than two-fifths the number of aircraft as in the past.\textsuperscript{19} Thus, in funds for aircraft the Navy's position had greatly improved. Their problem was the costliness of aircraft carriers, which seemed, in the budget-conscious late forties, to threaten the future of Navy air.

Stewart Alsop was amused at the final budget figures for the three services in 1949, when each had almost the same appropriation. It reminded him of The Wind in the Willows—"one for the rat, one for the mole, one for the badger."\textsuperscript{20} These figures were not easily agreed upon. Lilienthal recorded that on the eve of Louis Johnson's accession as Secretary of Defense, the Joint Chiefs of Staff were "at each other's throats, no decisions can be made." He was disturbed by the Navy's increasing tendency to deprecate the atomic bomb as just another weapon, and by the tendency of "vested interests" in the services to squeeze the atomic weapon into a pattern not inimical to their own ambitions, which were "to build up their own bailiwicks as they were at their height, i.e. the end of the last war."\textsuperscript{21}

Air Force leaders tended to blame the tight budget and the poor organization of the functions of the Joint Chiefs of Staff for most of the interservice friction. General Twining said financial starvation caused "intense competition among the armed services....There simply was not enough available to meet even the minimum requirements of an emergency." Like General Spaatz, General Elwood Quesada and others who had served in positions where compromise was necessary, General Twining knew the pressure on the Service Chief who is expected by his
civilian superiors to compromise, and by his subordinates to fight constantly for a greater share of the limited resources available. As Army General Bonner Fellers expressed it:

In the absence of a master strategy in the form of a directive from the President or Defense Secretary, no Chief of Staff will accept a supporting role for his Service...his brother officers will turn against him. He will be accused of betrayal of his Service."22

This was the position in which Admiral Louis Denfeld, the quiet Chief of Naval operations, found himself. Louis Johnson, the new Secretary of Defense, had cancelled the Navy's super carrier and with it all hope that the Navy could, within a few years, participate in the delivery of atomic bombs. Secretary of the Navy John L. Sullivan resigned in protest.

Admiral Denfeld had participated in the tedious struggle over division of the 14.4 billion dollar budget and had managed to save the great carrier, but Louis Johnson in July told all the Chiefs that the President had cut the budget to 13 billion total and that the carrier would have to go. Denfeld was suddenly a failure in the eyes of Navy airmen, especially in the eyes of militant Admiral Arthur Radford. What happened next, on the surface, is well known. The mystery of what caused it is now revealed, at least partially, by Stewart Alsop and also by other admirals who were unhappily involved in the revolt.

"I had no idea" Stewart Alsop wrote to a friend in late 1949 that the revolt had been so absolutely ruthless. Item: At a meeting of the top Navy Brass, it was decided, with Denfeld's concurrence, not to ask for a public hearing of the Navy's case, on the grounds that this would be damaging to American security. Admiral Price, Vice Chief of Naval Operations and Admiral Radford's man on the staff, immedi-

ately gave details of what had transpired at this meeting
to Ops. 23, which in turn gave them to the press as an example of Matthew's attempt to stifle the Navy.23

"Ops. 23" or Operations Section Number 23, was a small office of Naval officers in the Pentagon devoted to carrying on the Navy's fight against the Air Force, and was directed to some extent by Admiral Radford. Working with this group was Captain Crommelin, a distinguished Naval officer and an intense crusader for Navy rights. He wrote a memorandum which, in Admiral Leahy's words, raised the issue of "Navy complaints that naval efficiency is being sacrificed by the Department of Defense in favor of the newly established Air Force."24 It was "leaked" to the press that Admiral Denfeld had concurred in such a memorandum and shortly afterward Crommelin himself handed the classified document to a newspaper reporter. Alsop continues:

Item: When Denfeld's concurrence on the Crommelin memo appeared in the press Matthews asked him about it and Denfeld confessed that he had neither read the concurrence nor written it; it had been slipped over on him by the Radford men on his staff. Item: Matthews, Denfeld and other Admirals had a meeting with Congressman Vinson, at which it was agreed, over Radford's violent objections, to have no public hearings then; next day, without any doubt by Radford's decision, the Crommelin letter was leaked."

The Crommelin leak forced Congressman Carl Vinson of Georgia, the Navy's veteran spokesman in the House of Representatives, to call a hearing and publicly air the complaints assembled by Admiral Radford and his men. These methods were, to say the least, high-handed, but Navy solidarity caused the very proper Admiral Leahy to comment thus on Crommelin: "While completely out of accord with established Naval practice in presenting his case, he appears to have the courage of his convictions, and to be willing to accept any action that may be taken against him."25
In the first round of the hearings the author of the anonymous pamphlet containing charges of bribery and fraud against Air Force officials was found to be a civilian employee in the Navy Department. He admitted his guilt and also the falsity of the charges. With this expose accomplished, the committee adjourned to reconvene in October and discuss defense concepts and unification.

At the second session of the committee Secretary Matthews, as the civilian spokesman for the Navy, said that rather than develop long range aircraft the Air Force should depend on Navy support and on forward bases to achieve shorter ranges. He was followed on the stand by Admiral Denfeld, whose statement was an obvious surprise to the Secretary, although he was supposed to have approved it. Spectators were mystified, but Stewart Alsop has explained what happened:

Denfeld originally agreed to work closely with Matthews in preparing his testimony and to back up Matthews testimony. But the pressure was brought to bear on him, and the threat of Navy ostracism, and Matthews first read Denfeld's testimony backing the Radford position, in the press....As things stand you have a powerful, determined and ruthless group in the Navy still determined to resist civilian control and the Joint Chiefs of Staff strategy at all costs.

Admiral Leahy's reaction to Denfeld's testimony and his dismissal by Matthews was that the Chief of Operations "made a carefully prepared and accurate statement of the Navy's attitude and his removal from office is at least a temporary victory for the anti-Navy, Army and Air Force Combination." 27

Stewart Alsop's obviously inside version of what went on behind the strange public scenes of "the Admirals' revolt" is well corroborated by statements from other Navy leaders. One Admiral who was, like Radford, an airman, has said that Naval airmen were surprised at
Denfeld's "air-conscious statement." Admiral Richard Connolly, who had been tentatively chosen as the next Chief of Naval Operations, has said that Admiral Denfeld, though Chief, was "completely under the control of Radford." "What Radford was stating" said Admiral Connolly, "was not the Navy position but the case for Naval aviation." Admiral Connolly had called Radford's parade of witnesses at the hearings "that animal act of yours."

Connolly did not want to become involved in Radford's spectacle, saying "I don't know anything about the B-36s and I don't give a damn. So Radford said 'Well, what are you going to do--quit on us?' Then Johnson got wind of it, threatened to fire Matthews, Denfeld refused to support the Secretary, and so forth." The entry of the heavy-handed Louis Johnson into the confused situation in this manner indicates that he threatened to fire Matthews unless he kept the Admirals in line, which was no small task. His only chance was to put pressure on one or more senior Admirals to break the united front which Radford had maintained. He tried too hard.

Secretary Matthews next warned Admiral Connolly that testimony in support of Radford would ruin his career--"as near as I ever came to being offered a bribe"--so Connolly "pulled no punches." He cleared his testimony with no one but Denfeld, and in it he stated that the Johnson cuts in the Navy budget had left an insufficient force for any emergency. Secretary of Defense Johnson then dropped Connolly as the next Chief of Naval Operations, which was the end of his "opportunity for going any further in the Navy." Johnson continued to bully him, however, attacking him verbally after he and his team had briefed Johnson in London and warning "keep your nose clean,
Admiral." Johnson then stated that, anyway, the Navy was on the way out.

Admiral Connolly characterized the Secretary as "a complete opportunist, completely self-seeking. I would say that he was amoral, and that he was the most dangerous man we've had in public office since Aaron Burr." The Admiral explained Denfeld's maneuver as having been made in the hope of decisive support from Committee Chairman Vinson and other friends in the Congress, but he "underestimated Johnson," who with Truman's backing refused to modify his program.

What Admiral Connolly called Radford's "dog and pony show" was considerably better than that. Some of the testimony, insofar as it brought out the damage done to Naval readiness by the recent budget cuts, was unquestionably accurate. Other testimony was at least interesting.

Admiral Radford testified that cancellation of the super carrier negated a principle which had been agreed to at the Key West conference, that each service should develop the weapons needed to perform its mission. He felt the Navy Department had been tricked because it had no knowledge of the purchase of the additional B-36 aircraft until the news appeared in the press. Admiral Denfeld testified that the defeat of the armed forces of the enemy is still the major objective in war, while Admiral Ralph Withy said that the doctrine of "instant retaliation" had produced "bombing jingoism" and asked: "Must the Italian Douhet continue as our prophet?" The head of Navy Aviation Ordnance told the committee "You could stand in the open at one end of the North-South runway at the Washington National Airport, with no more protection than the clothes you now have on, and have an atomic
bomb explode at the other end of the runway without serious injury to you."31

Admiral Radford and his witnesses, for reasons which were soon forgotten after the super carrier project was later restored, attacked the efficacy, the morality and the need for atomic weapons. He went on to attack strategic bombing per se, unless performed with a precision he claimed was peculiar to Naval aircraft.

Air Force Chief of Staff Vandenberg testified in reply that enemy weapons in production might provide the best targets for strategic bombers, but they could also attack enemy atomic bombers on the ground or enemy armies threatening a European frontier. Both Vandenberg and Secretary Symington denied any certainty of quick victory through bombing. Vandenberg concluded that the aggressive thrust of the Soviets could be contained only by the economic and military power of Western nations, that "the only war a nation can really win is the one that never starts" and that "until accommodation of competing national interests gives assurance of keeping the peace, the striking-power of atomic weapons in the hands of this country is a prerequisite for national and world security."32

General Omar Bradley, who had recently become the first Chairman of the Joint Chiefs of Staff, concluded with a speech which was considered the climax of the hearings, and with a final statement that was considered a slap at Admiral Radford. He said the Navy had opposed unification and joint strategy from the beginning and added that "this is no time for 'fancy Dans' who won't hit the line with all they have on every play unless they can call the signals."33
General Bradley's outspoken support of the embattled Air Force and the Joint Chief's strategy gave him considerable stature in the eyes of Army and Air Force personnel and supporters, just as forceful Admiral Radford and quiet, cautious Admiral Denfeld became heroes to the Navy. One of the ironic sequels to the hearings was the subsequent elevation of Admiral Radford, whose career was supposedly ruined, to succeed General Bradley as Chairman of the Joint Chiefs of Staff. This was one of the first actions of Eisenhower's Secretary of Defense Charles ("Engine Charley") Wilson, who apparently knew or cared little about what had happened at the hearings three years earlier.  

For the time being, however, Admiral Denfeld, the chief of all the Naval officers who had openly defied Secretaries Matthews and Johnson, had to be punished. Joe Alsop wrote: "Johnson wants to fire Denfeld and the other Admirals, which God knows he ought to do. He has even told me so. But I myself doubt whether he dare the deed, because he is not merely reducing Naval strength...he is also weakening our overall strength, which is not admitted by him." Denfeld alone was dismissed.  

One of the forgotten figures of the time was "Old Matthews, the dim, obscure, but not stupid Secretary of the Navy--who acted with remarkable courage." Denfeld tricked him "and he got rid of Denfeld." Matthews, "the Nebraska businessman-Catholic layman, whose name was plucked, almost at random from the file of large Irish Catholic Democratic contributors when John Sullivan resigned, is now taking on the corps of Admirals with apparent indifference to the consequences." Joseph Alsop added: "I am prepared to bet my hat that having done the dirty work, Matthews is now ratted on by Johnson, who will hint that it
was Matthews' hot-headedness that made all the trouble, and indicate that he deplores the whole business."

Johnson, however, was himself already in trouble. "The entire city of Washington knows the President hates him. No one in the services trusts him as far as you could throw a piano. And instead of tending to one of the most difficult jobs in the world, he is busily running for the Presidential nomination in 1952."36

Finding a replacement for Admiral Denfeld as Chief of Naval Operations illustrated further the limitations of what civilian control can accomplish when it is confronted with a dedicated and determined minority in a military service. Fortunately for everybody, a suitable replacement did exist—but only one. He was Admiral Forrest Sherman, who, in the words of Admiral William Fechteler, was quiet, reserved, "had not too many friends," and had been "a favorite of Admiral Nimitz."37 More than a year before the hearings he had been ordered to take the Mediterranean Command. Stewart Alsop reported this distant assignment was "partly to get him out of the way, since he is considered too cooperation minded by his colleagues."38 Some of his less controversial colleagues considered him the "ablest Naval officer of his time."39

Admiral Sherman presented what Admiral Connolly called a "wissy-washy" statement when called as a witness in the B-36 hearings, and Admirals Denfeld and Radford "rejected" it. Connolly saw Sherman as a "good compromiser and temporizer" but admitted he was not under Johnson's thumb, because having appointed him under difficult circumstances, "Johnson had to like him."40 The end result was that the Navy actually gained a certain amount of power, despite personal
embarrassments, as a result of the unsuccessful revolt of Admiral Radford's minority faction. Sherman got to work on the critical anti-submarine problem, which had been neglected by Denfeld in his concentrated effort to compete with the Air Force for the strategic bombing mission and the atomic bomb.\footnote{41}

One of the strangest scenes of Pentagon history was the installation of Admiral Sherman as Chief of Naval Operations. A large group of Naval personnel had gathered for Admiral Denfeld's departure, filling the corridor outside. Admiral Sherman's installation was immediately afterward, but the Navy guests filed out immediately after the orders were read. Two Admirals only, both personal friends of Admiral Sherman, remained to speak to Secretary Matthews and to congratulate the new Chief.\footnote{42}

Admiral Sherman did not completely neglect interservice controversy. Radford had complained to General Spaatz that the Air War College was "teaching doctrines against carrier-based operations." This complaint was answered by General Fairchild with a list of Navy speakers, visits by the students to carriers, and other Naval contacts. So Admiral Sherman protested to General Vandenberg that General LeMay had said at the Air War College that the Navy had not cooperated in target planning. When General Vandenberg answered by suggesting such cooperation begin, progress was achieved.\footnote{43} Under Sherman the Navy shifted its policy from one of desperate competition with the Air Force for the most distant missions to capitalizing on its own specialties, thus becoming the most inconsistent but the most adaptable of all the services in its strategic roles--going from non-nuclear to carrier-borne-nuclear to the submarine-borne-nuclear Polaris system in
less than a decade, and retaining elements of all three capabilities in the process.

In addition to its being fired upon by Navy big guns, the Air War College was also the target of an attack before the United Nations General Assembly by Soviet Ambassador Andrei Y. Vishinsky. The veteran Communist firebrand stated that recent comments of the United States Navy concerning unification of the services were evidence of the open disagreement between the Air Force and the Navy regarding "the best means of attacking peace-loving countries and destroying millions of people." Vishinsky attacked the curriculum in the Air War College and the lectures said to have been given there on "military strategy against the Soviet Union." Air Forces officers at the War College knew that Navy exchange officers there were reporting to their superiors, but who was reporting to Vishinsky? It should have been obvious that if one reads enough Congressional hearings, such as the Unification hearings, an action which is evidently performed only by spies, one can learn almost anything.

The original target of the investigation, the B-36 bomber, contrary to legend, was more than supported by the investigation's findings. The furor over this monster probably exaggerated its value, since the public assumed with some justification that the Admirals were jealous. The airplane itself was an achievement, but by no means a flawless one. It was at the time the largest peace-time aircraft project ever and it was rushed from experiment into production without adequate testing. In some respects, as Stewart Alsop recorded later, its "advertised ceiling of 40 thousand feet as of last summer was largely phoney--it could only maintain this altitude very briefly,
dangerously, and at great sacrifice of speed, range and load." Within six months however—and this is where Admiral Radford and his "dog and pony show" had been wrong—hard-working air officers and Consolidated Aircraft engineers had developed solutions to leaky gas tanks, congealed oil at high altitudes, vibrations, play in control systems and other sometimes fatal troubles.

Now it is no longer phony—the B-36 could make the complete round trip, at least half of the way at forty thousand feet. This is important, since the Russian MIG-15 interceptor is believed to operate poorly if at all at this altitude. Moreover the whole horrible job could not be done from bases in this country alone, using hopped-up and refueled B-29s and B-50s, although this would about double the time required.  

It should be remembered that the importance of the B-36 at the time derived principally from the fact that no foreign bases were yet assured by firm alliances with either European or Asian countries and no adequate overseas base system had been established. Russian copies of the B-29 could actually cover the two thousand miles from Siberia to Seattle but there were no worthwhile targets for the American B-29s which could reach Siberia. Russia was by far the most difficult nation on the globe to approach, not only by sea but even by long range air.

General Curtis LeMay, who took command of the Strategic Air Command, wanted an independent delivery system. He could deliver the entire available atomic stockpile of that meager period with just four groups of the huge bombers plus one group for target reconnaissance. With two jet pods, actually B-47 jet bomber engines, he could increase the speed to 378 knots for target runs and reach to 45 thousand feet, an altitude at which small fighter planes were scarcely maneuverable enough to carry out attacks. He could reach 97 percent of the impor-
tant Russian target complexes from bases in the United States. Each of the monsters could carry 43 tons of conventional bombs if atomic bombs were not available or were not being used. Consequently, in 1949 the Air Force Weapons Board added two more B-36 groups to the two already being trained, plus one reconnaissance group. The size of each group was later increased from 18 B-36 aircraft to 30, which led Forrestal and Truman to approve the purchase of 47 more aircraft in May of 1949 without, apparently, consulting the Navy. This was the action that caused the Admiral's revolt.

The well-known story, repeated almost everywhere, that the Air Force at this time was concentrating heavily on big bombers is, of course, false. In fiscal 1950 the Air Force authorized the purchase of the 47 B-36 aircraft as against 81 medium jet bombers, 14 heavy transports, 50 medium transports, 51 troop carrier transports and 709 jet fighters. One outcome of the investigation was a recommendation that the interservice Weapons Systems Evaluation Group study the performance of the B-36. This group was said to have deteriorated somewhat in later years due to the lesser abilities of subsequent directors and to the fact that "military advisors and participants owed their primary fealty to the department of which they were members," but in late 1949 they could agree that the B-36s had a better than even chance of delivering each of the few atomic bombs available. While not perfect the clumsy weight-lifters were capable of performing this dreaded task if nothing else could save Western Europe from being overrun by the Red Army. This was a reassurance that was sorely needed, for at the same moment the Russians achieved a frightening surprise.
Chapter XI--Footnotes


2. Carroll Quigley, Tragedy and Hope, p. 911; General Nathan F. Twining, Neither Liberty Nor Safety, pp. 32-33.


4. Leahy Diary, Jan 11, 1947.

5. Ibid., Aug. 29, 1947.


8. Urs Schwarz, American Strategy, p. 53.


12. Ibid.


19. General Spaatz from the Air Force Staff, Memorandum, April 14, 1948, Spaatz Papers.


25. Ibid.


33. Ibid., pp. 535-36.

34. Admiral Pechtelor commented on Charles Wilson, under whom he served as Navy Chief: "God, he didn't know anything...I imagine McNamara's the same way, although I suspect McNamara's a little sharper mentally than Charlie Wilson was." Columbia University Oral History, 1962.


42. Author's notes; Admiral Ballentine, Columbia University Oral History, 1964.

43. Spaatz to Forrestal, Mar. 24, 1948, Spaatz Papers; Author's notes, 1950.


47. United States Air Force Statistical Digest, 1949-50, Air University; Major General Phillips, Air Force Documentation, undated; Robert Frank Futrell, USAF Historical Study No. 139, Air University.
Chapter XII
From a Dreaded Discovery to the Infinite Bomb

In retrospect, it is clear that every new atomic development, every technological "advance," was an event in diplomatic history as well as in military and scientific history.

Richard Rovere

He should have told them, at the very outset, "Je suis la bombe atomique."

....

A Faust of the twentieth century, he had sold his soul to the atom bomb.

Andre Malraux and Haakon Chevalier on the trials and persecutions of J. Robert Oppenheimer

The atomic bomb is not a mere theory. It is not a bad dream. It is a towering reality...and the decision as to whether the atomic bomb shall be used can no longer be made entirely by the United States.

General Hoyt Vandenberg

Prometheus: I caused mankind to cease foreseeing doom.
Chorus: What cure did you provide against that sickness?
Prometheus: I placed in them...hope.
Chorus: That was a great gift you gave to man.
Prometheus: Besides this, I gave them fire.

Aeschylus
Predictions as to when the Russians would have the atomic bomb ranged from three years to 25 years when Quincy Wright surveyed the literature on the subject in 1947.\textsuperscript{1} The Soviet Union in 1941 was considered by some scientists to be ahead of the United States in nuclear research. The Russians, however, did not concentrate on explosive possibilities and the war interfered, to some extent, with all their research efforts.\textsuperscript{2} Just how rapidly the Soviets advanced during and after the war was a matter of speculation, but some very good guesses were made. Most people in the United States government were persuaded to take an optimistic view.

More than a year before the first Russian explosion the Chairman of the Atomic Energy Commission commented on a "lack of integrity" in the estimates of even the most unbiased intelligence agencies. Their method of operation consisted in applying to the meager reports they had received a measure of future time based on our own experience in making similar weapons. This was a reasonable guess, but when the results were put in a report they were presented as specific knowledge "so important and delicate that its nature and sources cannot be hinted at."\textsuperscript{3}

When questioned by pundit Walter Lippman in mid-1948 on what the Russians might do to Europe with atomic bombs when they got them, and when they might get them, Lilienthal gave a non-pontifical answer. We were in no agreement as yet within the United States on possible military uses of the bomb, and we knew so little about what the Russians were doing that we could only make assumptions. Despite Lilienthal's caution, his own assumptions were made hopeful by his understandable prejudice against secrecy and controls. He assumed that "a police or
closed state can't get good scientific results compared to ours. 4

Here Lilienthal was simply following the pleasant custom of assuming that what ought to be, is. This habit reached an extreme when he and many scientists came to try to block the development of the hydrogen bomb. On the question of Russian progress, Lilienthal's successor, Lewis Strauss, who was less theoretical about the effects of secrecy, could gauge Russian activities more accurately. Various authorities had a variety of reasons for underestimating Russian capabilities. Scientist administrator Vannevar Bush thought the Russians could not administer science well enough; project manager General Leslie Groves believed the Russians lacked ability to manage complex activities; many scientists believed their Russian counterparts could not function effectively under restrictions and controls—though foreign-born scientists were generally less gullible, and theologians often thought the Communists would be greatly handicapped by lack of faith, except for those who believed, like Reinhold Niebuhur, that the devil, too, has power. 5

One group which did not succumb to self-adulatory complacency was the President's Air Policy Commission which thought 1952 would be the earliest date for the Soviets to have atomic weapons in quantity but warned that it would be reckless to count on this surmise. The Commission's chairman, Thomas Finletter, recalled later that he had been attacked by certain groups and individuals as "alarmist," "air power fanatic" and other less desirable designations, for the lack of reassurance in his predictions. 6

A minor reason for the inaccuracy of many estimates was the success of Communist spies. The fanaticism of the first of the famous
Senators McCarthy later made the recognition of spying unfashionable, but scientists now agree that Klaus Fuchs and Alan Nunn May got the Russians started on their atomic weapons project in 1943 instead of 1945 after Hiroshima. The number of successful spies may have been small, but Russian efforts to gain information in the United States was sufficient to make the first Russian reactor almost a carbon copy of the one at Hanford. 7

The Soviet bomb was not exploded without the usual Communist warning. For more than a year Soviet diplomats abroad had been threatening susceptible foreign offices with news of the impending Russian bomb. 8 Yet when Lilienthal saw Air Force General James McCormack, director of Military applications for the AEC, standing in the road to his house on Martha's Vineyard near midnight of September 19 he did not guess the bad news. Lilienthal and many others of the 300 who were told that night did not sleep well. "The feeling in the abdomen--here it is. What we'd feared." 9

President Truman seemed unimpressed and kept trying to question the accuracy of the evidence. "German scientists in Russia did it, probably something like that." Most of the President's advisors on foreign affairs, and the Joint Chiefs of Staff, urged him strongly to release the news, at least before it leaked or the Russians announced it, but the President demurred, appearing calm, until the 23rd of September. Fortunately there had been no other public revelation. The President said the explosion occurred "within recent weeks" which was accurate, though not precise. It was secretly known to have happened between the 26th and the 29th of August--almost a month earlier. 10
"As those with good memories will recall," wrote Joseph Alsop some five years later of the Russian atomic explosion, "this was an event which was logically expected to happen some time, but emotionally not expected to happen ever." By all odds the best account of the back-ground of the developments leading to the event, and those following it, is contained in a most informative and brilliantly written manuscript by Joseph Alsop in 1953-54 which was not cleared for publication by Admiral Lewis Strauss for the Atomic Energy Commission because it contained material considered too sensitive for public exposure at that time. The following discussion of the Russian achievement and its aftermath is based principally upon material contained in notes for Alsop's 1954 manuscript.

The Joint Chiefs of Staff had used in their planning the year 1952 for the appearance of the first Russian bomb. This date represented a kind of consensus among government intelligence agencies. The Joint Chiefs' planning against that date amounted to little, since Presidential and Congressional budget ceilings continued to make substantial military progress impossible. Air Force intelligence officers were convinced that the Soviet achievement would occur years ahead of the official prediction, and insisted upon performing a detection patrol some years ahead of the actual event. Although the Joint Chiefs of Staff were said to have been surprised by the explosion, General Vandenberg was not surprised. Not only had the Finletter Board predicted an early date, but the Compton Report of 1947 and other estimates had warned against complacency.

Early in 1946 the scientific advisors of the non-Soviet delegations to the United Nations met informally to discuss atomic energy
controls. In the discussion the majority agreed on 1947 as the first possible date for the Russian's first atomic bomb, 1951 the latest date, and 1949 the most likely. Some days before Hiroshima, Winston Churchill predicted the 1949 date exactly. On the other hand, in a later official forecast the British government had chosen the year 1957 as the first imaginable date. The British, once leaders in the field, did not explode their own first bomb until 1952.

It was apparent that most governments, plagued by demands for domestic investments and defense cuts, tended to push back the expected dates of external problems that might interfere with their internal preoccupations. Speaking of the United States Alsop observed "the country has been permitted, and sometimes actively encouraged, to indulge in the worst kind of wishful thinking on this life and death problem." He thought the explanation must be "that our national leaders have not the faintest idea what to do about the facts confronting them; or that they think what needs to be done will be politically painful. In these circumstances, politicians generally prefer not to discuss ugly facts, even among themselves."

At least one section of a United States intelligence agency was "shaken-up" over too-optimistic analyses of production from Soviet controlled uranium mines. It was known that no other mines matched the rich Shinkolobwe mines in the Belgian Congo, with their 70 percent ore, but there were old mines in Czechoslovakia which the Soviets worked frantically. There were also new mines in the Lake Baikal area. When secret police chief Beria was put in charge of the Russian project after Alamogordo, at least a quarter of a million workers were pushed into the Czech mine area. The mortality rate there was reported
to resemble that of the Siberian Kolyma River gold mine area during the 1930s, where there was a life expectancy of only a few months.

When physicists Eugene Wigner and Enrico Fermi designed the Hanford reactors during World War II, they foresaw the possibility of breeder reactors that would actually produce fissionable material and also provide heat for electric power. This was soon accomplished. It was wishful thinking to assume that uranium was the limiting factor in the production of Soviet atomic bombs. Russian scientists started construction of their first atomic pile in 1947 and in two years it was yielding plutonium. United States intelligence agencies knew of this pile but their secrecy kept the information from scientists who could have predicted the early test date had they been informed.12

In addition to reports from the Rosenbergs, Fuchs and other spies who saved the Soviets much time in avoiding blind alleys, Beria used 150 German and European physicists who were gathered into Russia. Not even the dedicated Communists among these scientists were allowed to work closely with the Russian scientists, and they were not kept in Russia. After their brains had been picked systematically and completely, some of the scientists were sent back to their own countries. A few of these were later encountered in European centers, somewhat dazed at first by their bewildering experience.

The intensive efforts of the Soviets may be compared with wishfully relaxed efforts in the United States during the same period. According to General Twining "a large segment of the United States scientific community believed that Soviet progress would be very slow—that we had plenty of time. The leadership of the Army and Navy tended to agree with this estimate." Their view was that if Soviet scientific
progress was to be slow, more of the American defense budget could be
devoted to land and sea forces, so they tended to want to believe the
optimistic estimates on atomic progress. Government officials who
were domestically oriented also tended to believe only the optimistic
estimates. The Air Force also had other axes to grind but it had pri-
mary responsibility in the nuclear field and took a less rosy view,
insisting that Soviet technology would move rapidly.

The most critical issue in the beginning was whether to establish
a detection system against the possibility of a Russian atomic test.

General Twining wrote

Documented history of this period, much of it still unneces-
sarily classified, indicates that the Air Force put up a one-
service fight on this issue and finally carried its point....I ,
will always have the greatest respect for the military of-
ficials from the intelligence community and for those among
the nuclear specialists whose vision in this matter and whose
dedication to duty brought the U.S. nuclear detection into
being.13

Outstanding among the nuclear specialists was Lewis Strauss, then a
member and later Chairman of the Atomic Energy Commission.

Admiral Strauss was an original member of the Atomic Energy Com-
mission in 1946. A man of many personal contacts with both military
men and scientists, he possessed an endlessly inquiring mind. Strauss
soon uncovered an amazing fact. It was possible to detect, by the
simple process of filtering the upper air, any atomic explosion that
had occurred elsewhere in the world. Yet no such effort was being
made. It would have been difficult to imagine a more dangerous fact
not to know than the possession of atomic bombs by Russia. Yet the
men charged with the defense of the country, or most of them, were
making no effort to find out. Because they did not want to believe it,
they chose to accept the estimates of the more optimistic scientists who hoped it was not so, and consequently relied entirely on their happy assumptions.

As Joseph Alsop explained the situation "It was almost an accident that the hard truth was available to puncture this happy but highly perilous dream. Quite probably the truth would not have been known for some years if it had not been for the determination of Admiral Lewis Strauss." Alsop was scarcely friendly toward Strauss, whom he accused of persecuting Alsop's friend, J. Robert Oppenheimer, and who had refused to clear Alsop's manuscript. Nevertheless, he gave Strauss considerable credit as a man of great energy and strong opinions who "raised a tremendous rukus on the issue of detection," and finally persuaded Truman to let the Air Force go ahead with the detection patrol.

The project was established in time to be tried on the Eniwetok tests by the United States in the spring of 1948. It worked perfectly. A year later it again worked perfectly, this time to detect a Soviet explosion somewhere in Siberia. The filters of the high-flying Air Force plane picked up traces of plutonium in the radioactive cloud from the Russian explosion. This meant that the Soviets had bypassed the simple Hiroshima type bomb and had gone directly to the more complex Nagasaki type. When President Truman kept trying not to believe the Russian explosion, Oppenheimer had to make the point that if the Russians could put plutonium in the air without an explosion they knew more than we.

The military leaders strongly urged the President to be frank with the country and the world, but Secretary of State Dean Acheson argued that such news coming at the same time as the devaluation of the
British pound might create a panic in the free world. After a few days delay it happened that Senator Brian McMahon called a meeting of the Joint Congressional Committee on Atomic Energy, of which he was chairman, and word reached the White House that McMahon knew what had happened. An announcement was then made, with the soothing statement that the Soviet bomb made no important difference.

On September 25, Stewart Alsop, somewhat less perturbable than his brother Joseph, wrote from Washington "The Beria bomb seems to be taken with a kind of wary calmness here--I'd always imagined much more excitement and rushing about." It was very much the policy, he said, not to get excited. His friend, George Kennan, was "hanging out the line that nothing has really changed, obviously on instruction. In a sense nothing has really changed, since the Russians were always expected to get the bomb." A great deal had been changed by the Russian explosion which was surely the second most important event of the twentieth century, assuming the American explosion was more important. The most critical change was the new rush to reach an early decision on what to do about the hydrogen bomb, but there were also other problems.

The policy of "playing it cool" had certain drawbacks. When the Joint Chiefs of Staff unanimously urged an expansion of the atomic energy program, the President put it off indefinitely. New railheads were stretched over the ugly fact and hopes were raised that Russian mines would run short of uranium despite the reported killing of ten thousand slave laborers a month in desperate efforts to step-up production in the Czech mines. Since the Russians were believed to have no more than 300 copies of the B-29 bomber as yet, it was said they
could not bomb the United States successfully, but the atomic threat to Western Europe was undeniable. It was assumed, wrongly, that the Administration would begin rearming against the new threat soon, and that there must be caution against getting "into such a lather" that war would be inevitable. George Kennan told Stewart Alsop that any effort to force the issue with Russia could lead only to war which the United States could not win, and that any such policy would cause him to resign immediately. "George means it." Kennan managed to hope that maybe the Russians would at last talk about international controls. Said Alsop "I think this is nonsense, and I think George really thinks so too."15

The National Military Establishment, in Lilienthal's judgment, did not grasp at once the import of Russian success and the prospect of a stockpile in that country in the next few years. "Too busy with the interservice row, or just not too able to grasp it." Further discussions developed the view that the atomic bomb could not be "outlawed" without abandoning Europe, especially since it was a "political fact" that the United States would never raise an army until too late. An effort would be made to rearm Europe but this would take at least five years, and the Russians might attack earlier. In the situation the "super bomb" if it could be constructed, might have psychological value.16

"Scientists do not like to think of themselves as merchants of death on a large scale" was one of Joseph Alsop's explanations for the strange debate over the making of the hydrogen bomb. The issue appears, in retrospect, simple enough, but the emotional attitudes of those involved in the debate created confusion that is even now diffi-
cult to unravel. One element in the problem was President Truman's euphoria. Oppenheimer related to Joseph Alsop his experience with the President at the White House just after the Russian bomb was exploded. He had naturally expected to find the President somewhat disturbed. Not so. Truman kept repeating "I tell you Oppie, everything is going to be all right." Oppenheimer remarked "I just couldn't understand him." Alsop guessed that Truman was "operating under a pink cloud of chipper euphoria" because he had translated his justified optimism about his political prospects into a less justified optimism about the world situation. The agonizing problems raised by the debate over the H-bomb were such that six weeks later Alsop could report that the President had been shaken, at least to some extent, out of his euphoric conviction that "everything is going to be all right."

Some of the confusion about the H-bomb debate derived from the dense fog of secrecy that surrounded it. For a few days not even the Alsops could get information direct from the White House on this subject. Joseph Alsop despaired of early information from Truman's assistant Clark Clifford or from Truman's friend Sidney Souers on the National Security Council. At the moment the Alsop brothers were not popular with the President, so Joseph expected difficulty in getting a clearance from him in any case. He suggested an alternative that offered an excellent illustration of the value of "secrets" to political officials. He suggested the Saturday Evening Post editors use someone else, with an offer to present "the President in crisis, showing all his broad wisdom and distant vision" in return for the facts.
On the ability of the Alsop brothers to discover the facts
Joseph Alsop was unduly pessimistic. A bungling Senator, Ed Johnson
of Colorado, was apparently addled by the glare of the new medium
while appearing on TV and attacking the carelessness of scientists in
revealing secrets. In the process he himself revealed that "our scient-
ists" had been working on a giant bomb 1,000 times more powerful than
the Hiroshima version. This blunder broke the security dam. Immedi-
ately Stewart Alsop wrote "I have had it confirmed from one of my least
impeachable sources" that the Senator was surprisingly accurate. It's
a hydrogen job, of course. The only detail I have is that some of the
scientists have rebelled against working on it, on moral grounds...my
own ideas dried up when I began thinking about that hydrogen bomb."
Soon he was reporting "more horrible news about the superbomb--get a
triple bromide handy--it is to be produced within five years," as
indicated by past progress. The area of destruction would be 30 to
60 square miles as compared with the two to four square miles of the
Hiroshima and Nagasaki bombs. Northup was making a starguided V-1
missile to deliver it, Alsop said. This was the almost forgotten
"Snark," of which a few were deployed. It was never considered very
dependable and was soon superseded by refueled B-52 bombers.20

The President was "mad as hops" over the security breach by
"Big Ed Johnson" and was "cussing Johnson and the Joint Committee
out," according to Lilienthal. The Joint Congressional Committee on
Atomic Energy, despite such members as Johnson, had become an influen-
tial body under the Chairmanship of ambitious Senator McMahon. Its
members knew far too little about the subject and they were not even
given access to information on the number of weapons in the atomic
stockpile, but they talked to both the military and the scientists and thus played an important role. Immediately after the Russian atomic bomb, this committee produced a staff paper demanding rapid development of the H-bomb. To this the Atomic Energy Commission replied, quite inaccurately, that all possible was already being done.21

The reasons why the Atomic Energy Commission was not doing all that could be done about H-bomb development were by no means sinister, but they were complex and, of course, compounded with secrecy. The problem with the H-bomb was the trigger. The theory behind the H-bomb had been developed in the nineteen-thirties by Dr. Hans Bethe after studying the results of a new cyclotron at Cornell University as part of a search for the source of solar energy. The source was nuclear fusion. President Truman's announcement that the Hiroshima bomb had used energy like that of the sun was wrong. Ordinary atomic bombs did not generate enough heat to trigger the fusion of heavy hydrogen atoms. The problem of how to generate fusion had intrigued some of the scientists at Los Alamos while the atomic bomb was being developed.

The leader of the group which was more interested in fusion than in fission was Dr. Edward Teller. He and a few colleagues in a project called "Super" had kept doggedly at work on the problem while most of Los Alamos was concentrating on bigger and better atomic bombs. In some respects they were in competition with the atomic majority, since an H-bomb requires both deuterium and tritium. Tritium, a gas created by the action of fissioning U-235 on lithium, was apparently needed in relatively large quantities which could only be produced in reactors such as the one at Hanford. Because the stockpile of atomic bombs in the late 1940s was so small, it was considered unwise to convert the
Hanford reactors to the slow and costly production of tritium for use in H-bombs even if it could be proved practicable. Thus the budgetarily economical reliance on an increasing quantity of atomic bombs after World War II had vetoed serious efforts toward the development of a far more effective weapon.\(^{22}\)

There was no assurance that the Russians had concentrated on the production of plutonium for atomic bombs rather than on tritium H-bombs. The American atomic bombs were beginning to number in the hundreds at the time of the first Russian atomic success. It would have been typical of the Russians if, feeling themselves unlikely to be attacked, they gambled immediately on the hydrogen bomb. This had been their method in airplanes vs. railroad, jets vs. reciprocating engines, and other advanced moves. The maneuver was to be repeated as they concentrated on missiles rather than on bombers, and later on satellites rather than missiles. Dr. Bethe thought the Russians might explode an H-bomb ahead of the United States. His estimate of that possibility, though discounted by Oppenheimer, was the most persuasive influence in the American decision. As it turned out, Bethe was almost right. The Russians were not far behind despite the marvelous good luck as well as skill that marked the belated American experiments. A few months after the American decision to go ahead, scientists at Eniwetok assembled a huge atomic bomb and placed inside it small amounts of tritium and deuterium. Dr. Alvin Graves, director of the many experiments there, said they were so novel and complicated that he would have been happy if only a few of them had worked.\(^{23}\)

The decision to go ahead with the definite purpose of achieving an H-bomb as soon as possible was not easily arrived at. The reaction
of many scientists was an understandable emotionally as it was il-
logical intellectually, and it is significant that some of those most
resistant to the manufacture of the H-bomb had taken the lead not only
in making atomic bombs but also in the decision to test them against
cities. The entire scientific advisory group, successor to the organ-
ization which had recommended the specific employment of the first
atomic bombs, recommended against more serious efforts toward even the
making of an H-bomb. This attitude appeared to be a kind of penance
for previous actions, but it ignored the problem at hand.

As Swiss analyst Urs Schwarz comments, military and Congressional
leaders who saw no choice but to go ahead were "duplicating the think-
ing process" that had led scientists in 1939 and after to prepare the
atomic bomb as a protection against Hitler's possible development of
the same weapon. In 1949 the same situation existed with regard to
Stalin, except that evidence of Russian progress toward a superior
weapon was far more complete. This time many of the same scientists
who had acted with less inhibition than most military men in 1945
suddenly recommended that nothing be done. They would rely on the hope
that the Russians would do nothing or that the Russians might decide,
as a result of American forbearance, to reverse themselves and agree to
international inspection and controls.24

Lilienthal and the Alsops, who appear to be the most candid re-
porters of this period, began by sympathizing with the scientists in
their efforts to resist weapons progress and somehow persuade the
Russians to do the same thing at the same time. After "a good deal of
heart searching" the Alsops decided to publicize the issue at the end
of 1949. They hated to "scare people" but considered it a life and
death matter to present the public with the issue of whether to "perfect this horrible instrument" or first try a new approach to the Russians to get control of it through a simple inspection system. They expected Lilienthal might speak up in behalf of delay, and managed to find some humor in the grim problem by observing that scientists "should have stopped with the flush toilet."25

The official position of the most responsible scientists—Conant, Oppenheimer and the others who made up the General Advisory Committee—was not categorically against the making of the H-bomb but only for delaying it until after another effort to persuade the Russians to accept inspection. It later developed, as Dr. Kenneth Pitzer reluctantly testified in the Oppenheimer hearing of 1954, that Oppenheimer continued to oppose the H-bomb project after the President’s decision to pursue it. Dr. Pitzer, a noted chemist who was a director of research for the Atomic Energy Commission, felt that Oppenheimer slowed the H-bomb program and that he should have disqualified himself from its technical leadership since he continued to oppose it. Oppenheimer had failed to encourage Dr. Bethe to take part and had helped to create the myth that a "crash" program was being followed.26

In the hearings Oppenheimer dodged a question as to why he had recommended bombing the Japanese cities by saying "In the nine years we have been talking about these things I have said almost everything on every side of every question." By the account of his most passionate public defenders, the Alsops, Oppenheimer made 13 separate confessions of lying about important matters during the hearings of 1954. Yet he managed to emerge as a martyr in the eyes of many. A few of his accusers were unfairly suspicious. Although this uncannily
persuasive and self-tortured genius played a key role in the H-bomb debate of 1949-1950, his activities and influences were too complex and confusing for analysis here.27

Oppenheimer was quoted by Joseph Alsop as saying "The decision to try to make or not to make the hydrogen bomb goes to the very basis of our morality." Alsop eventually countered that "the foundations of our morality are not called into question, of course, by the simple act of building a weapon more powerful than our enemy's weapon." He added a comment that touched the root of the matter: "It is an immoral act to release vast forces aimlessly and with no intention to direct or control their use."28

In addition to the personal soul-searching of some of the World War II scientists, one of the difficulties in reaching a decision on the H-bomb was the general ignorance of the military situation on the part of all the scientists and even of the Atomic Energy Commissioners. During the atomic period, Lilienthal said, "at no time was the Commission supplied with any of the information or views of the Military Establishment upon which the military recommendations had been based." Evidently the General Advisory Committee of scientists had even less contact with military realities. Lilienthal's personal knowledge of the nature of Russia and the Communist system was evidently on the same level as that of most scientists who continued to hope that the Soviet government could admit foreign inspectors to search the land for illegal weapons-making activities. Lilienthal admitted that "Renunciation of the H-bomb by the United States must be followed by Russian Opening of Borders...Without that, nothing else can follow but suspicion, fears...and piling up of super weapons."29 Most of the disagree-
ment was caused by a hope that Stalin would open the borders of Russia just so the United States would "renounce" a weapon that Stalin himself was busily making. It would all seem strangely unreal after just a few years.

Most of the principals other than the isolated scientists on the General Advisory Commission came to favor a more serious effort to produce the H-bomb. Especially influential in this process were scientist Edward Teller, Commissioner Lewis Strauss and General Lauris Norstad who, according to Alsop, led the debate against Oppenheimer's views. Teller, a dynamic and forceful genius who had not favored the use which was made of the atomic bombs, had no inhibitions about trying to protect civilization from Stalin, whom he considered just as dangerous as Hitler. No sooner had the Russian atomic bomb been detected than Teller hurried to Washington, where he met with Strauss, who wrote to the President recommending action on the H-bomb. Meanwhile three members of the Atomic Energy Commission, influenced by the scientists, shared their doubts about the project. Only Commission member Gordon Deane originally sided with Strauss. Truman referred the problem to the Departments of Defense and State. The Defense Department replied with cogent reasons, formulated by General Norstad, as to why the bomb should be made. The Department of State reported there was not the slightest indication the Soviets would negotiate any more seriously on atomic control than in the past. By the time the Commissioners testified before the Joint Congressional Committee in late January, all had agreed to make the bomb.

A special committee composed of Lilienthal, Acheson and Louis Johnson recommended in the affirmative to the President on January 31
and the decision was announced. Despite his sympathy for the position
taken by his friend, Robert Oppenheimer, Alsop summed up the argument
some four years later around the question Truman constantly asked while
the secret struggle was going on: "Can the Russians make this thing?"
Even those who opposed the project had to reply "Yes, almost cer-
tainly." Said Alsop

imagine the effect on our allies--and on this country--if
the Russians tested the world's first true hydrogen bomb.
This is why Truman's decision was certainly the only one
he could make. For all sorts of reasons, strategic, po-
itical, psychological, the United States simply could
not grant a hydrogen bomb monopoly to the Soviet Union
by default.30

Dr. Teller had foreseen that the H-bomb would be useful against
troops in the field covering areas too large for atomic bombs, but a
more important application finally was as the warhead of long range
missiles whose intercontinental lack of accuracy as compared with
bombers demanded an explosive that would cover a wider area. With
hydrogen bombs there was theoretically no limit to explosive power.
Atomic bombs had the problem of critical mass--of avoiding the conti-
guity of fissionable material sufficient to start a chain reaction.
The H-bomb designer could increase the deuterium-tritium core to any
size.31

There were many sequels to the first explosion of a Russian
atomic bomb and to the new consciousness that the hydrogen bomb would
have to allow. The progress of science was not only cumulative, it
was increasing geometrically. Some eighty years passed from the inven-
tion of TNT to the atomic bomb, only ten from the atomic bomb to the
hydrogen bomb. Scientists like Dr. Harold Urey, who supported Teller
on the H-bomb could say philosophically "nature does not always behave
in the way we desire" 32 and the dynamic Teller could maintain "to abstain from progress is a medieval idea." 33 But the distinguished scientists of the General Advisory Committee along with a few other scientists, had become disillusioned with their own progress.

When Lilienthal brought the Advisory Committee the news that the H-bomb decision went against their views "it was like a funeral party." 34 Lacking the sophistication of military men whose professional advice is often ignored, they asked if they should resign. They were encouraged not to, but in the next few years some scientists seemed to lose interest even in the development of peaceful uses of atomic energy. Dr. Pitzer, who was chairman of the General Advisory Committee in 1952, had to report that "some Committee members of long standing seem to have remarkably little enthusiasm for the primary goals of the atomic energy program." He quoted some as predicting that atomic power as a source of energy would be abandoned in the 1960s. They were completely wrong, of course. By the late sixties more than half the power plants under construction in the United States would be nuclear. 36

The motivational malaise of a few scientists was by no means typical. Contrary to much propaganda at the time and since, the Atomic Energy Commission had no great difficulty finding scientists to work on the hydrogen bomb, and after the Korean War began the project went ahead full speed, and none too soon. 37 Ominously, the Chinese Peoples Republic was proclaimed just one week after Truman announced the Russian bomb, and the temporary but troublesome Chinese-Russian alliance was formed. The second and third Russian bombs were not exploded until October of 1951, but the third was well above 50 kilotons
in yield and soon the original estimate of Russian production was increased by fifty percent. Although atomic bombs were not used in the Korean War there was a rapid increase in the rate of atomic armament. The urgency of the effort led to a reversal of the original decision not to test atomic bombs in the United States. 38

Nor were scientists alone in feeling discouraged during the early 1950s. Stewart Alsop reported "perhaps through some sort of half conscious feeling about the bomb, most of the government people I know who can scrape up a bit of cash are buying farms--George Kennan, Paul Nitze, McGhee, Frank Wisner, etc....George is really much more deeply interested in the farm than in foreign politics these days." Alsop had reported Kennan disgusted with the world in general and thinking that in the "government by crony" atmosphere of the second Truman administration effective foreign policy was impossible and war inevitable. Jokingly, he said Kennan had decided "that it was best therefore to retire to his ivory tower and await the inevitable end." 39

Joseph Alsop was himself deeply shocked when Truman, in the face of the "Beria bomb," cut the 1951 military budget from 14.4 to 13 billion dollars. Worst of all, this would cut the strategic air groups from twenty to fourteen. It appeared to be a return toward "a more expensive version of the non-defense policies of the 1920s," and the worst of it was that as Soviet rearmament proceeded at a rapid pace their increasing preponderance could only lead to war, with the country "deceived into believing that we have true strategic strength when we do not." Alsop gave as one of the reasons for the defense let-down the "failure of the political planners--George Kennan et al--to press the importance of being strong. Their story is that the Russians
are not planning war, which no doubt they aren't, in the sense that the German General Staff planned a war." In a few months Alsop was proved right, and the popular Kennan-Gruenther-Louis Johnson thesis that Communists do not fight unless cornered was proved embarrassingly wrong.40

The true meaning of the Russian atomic bomb and of the coming hydrogen bomb would be kept officially secret from most Americans for years. Winston Churchill seemed to be the last Western leader capable of recognizing and discussing the meaning of the bombs. He made three speeches in Parliament in 1950, as leader of the opposition, which Joseph Alsop considered highly significant as "unusually bland and unornamented" and lacking "the familiar Churchillian fire." He said "one can sense in the plain words a certain fatigue, as the old man faces up to a threat more terrible than the wrath of Hitler."41

Facing up to the threat was indeed a fatiguing business. Lilienthal sensed it as soon as he began it in 1946:

periods of almost unimaginable gloom...from the terrible realities of the bomb, so close to us in our work and the constant fear of a long bitter period of antagonism and strain and perhaps war with the Russians. I can't make clear how this hangs over everything. We try to be objective about it, but it is part of the calculations, part of the planning, part of the weighing of alternatives.

Elsewhere he wrote of

what could be the greatest destruction of human life in the whole history of mankind. This is a prospect I can learn to face, I am sure, as one does almost anything. But it does not included the requisites of a reasonable or desirable way of living...the impulse to run away from such responsibility, to enjoy life and to forget this whole business rises at times...I know better really, I know it is better that one who feels as I do should have a hand in this business, as a deterrent to the kind who rather likes the idea of the biggest killing act of all time--making Attila the Hun seem a piker.
Lilienthal may not have known it, but these reactions occurred in every area, not only civilian but military as well.

No one has expressed the atmosphere of strategic planning, discussion and debate quite so well as Joseph Alsop, because no other skilled writer knew it quite as well. Alsop observed that after a successful atomic attack a nation would simply cease to exist as an organized society, and asked

Can this happen here in the United States? In the inner circles of the American government, this grim question, so infinitely removed from the ordinary political life of the day is anxiously and constantly examined. The argument goes on, as it were, in airless rooms, and the officials and military officers involved in the argument are not refreshed by the bracing atmosphere of public debate. The hideous realities they are discussing—whole-sale death and wholesale destruction, national disorganization and national defeat—are transmuted in these arguments into mere abstractions, perhaps as a result of a subconscious self-protective reflex of the policy-makers. The word 'mega-death' is only one of the symbols the policy-makers have invented to hide or at least to veil the ugly outlines of the truth.

Speaking of the continuing problems of national defense, he said:

These facts have ssemed unpleasant to the point of being unbearable. Being unbearable, they have not been thought about. Being unthinkable they have not been talked about... But unbearable, unthinkable, unspeakable though they are, they remain facts. Being facts, they go on posing the same ugly questions.

After the 1951 military budget was cut to 13 billion, Secretary of Defense Louis Johnson denied that there was any meaning to the Russian atomic explosion and predicted another 13 billion budget for 1952. Chairman of the Joint Chiefs of Staff Omar Bradley said "I am in complete agreement with that ceiling." Because of the Soviet bomb the United States Army had been authorized forty-seven anti-aircraft battalions. These battalions would be useless against an atomic at-
tack, but General Bradley thought it important to have them anyway.
Chapter XII—Footnotes

1. Quincy Wright, article in *Air Affairs*, May 1947.


24. Urs Schwarz, American Strategy, pp. 77-78.


26. The United States Atomic Energy Commission: In the Matter of J. Robert Oppenheimer. Transcript of Hearing before the Personnel Security Board District of Columbia, April 12-May 6, 1945, Government Printing Office, 1954, pp. 701, 702, 707. Dr. Pitzer expressed the view that if Oppenheimer had resigned from a project he disfavored, his motives would not have been questioned and the unfortunate incident of a scientist being suspect because of his professional advice would not have occurred.

27. Ibid., p. 893. This remarkable document might never have been printed had not a member of the Atomic Energy Commission, Eugene Zuckert, fallen asleep while reading it on a train, lost it, and raised fears that it would be revealed in a more embarrassing manner than early publication in fine print. See Lewis Strauss, Men and Decisions, p. 291; Joseph and Stewart Alsop, We Accuse, London, Gollancz, 1955, p. 26.


31. Ibid.


37. Lewis Strauss, Men and Decisions, p. 274.


Chapter XIII
Peace, Cheap Hypothetical Peace

Our splendid arguments concerning the cost of war and the expense of defense have influenced no one but ourselves.

General Hoyt Vandenberg
May 1950

As the enemy drew nearer to Moscow the attitude taken by its inhabitants in regard to their position did not become more serious, but on the contrary, more frivolous, as is always the case with people who see great danger approaching.

Tolstoy, War and Peace

The remarkable thing is not that there is so much disagreement in the Pentagon but that there is so much agreement. It is a tribute to the character of the men in the services that, with so little in the way of organized and disciplined conceptual tools to use in their analyses, they have...come so far toward appreciation of each other's positions and toward the correlation of their common efforts.

Rear Admiral J. C. Wiley

For good or ill air mastery is today the supreme expression of military power, and fleets and armies, however necessary and important, must accept subordinate rank. This is a memorable milestone in the march of man.

Winston Churchill
When a C-47 "Gooney Bird" over Maine was not identified, the garbled message to Washington read "40 aircraft." A meeting of the Joint Chiefs of Staff was interrupted and a warning was sent to the White House. The White House staff attempted to prepare the bomb shelter there for President Truman but nobody knew where the key was. The incident illustrates the temper of 1950, the year the Korean War began.¹

Less than three months before the Korean outbreak the President was displaying a surprising cheerfulness about the international situation. He told the General Advisory Committee of atomic scientists that he had felt low about the picture a year ago, but now he was optimistic and felt sure that in two years there would be a general settlement with Russia. On the basis of "information available to me," said the President, the settlement with Russia would include the outlawing of atomic weapons. He thanked the committee for getting the atomic weapon advanced so far but assured them that in two years no one would have to work on it any more or ever again. This puzzled the committee as it puzzled a great many people, then and afterward.²

Stewart Alsop in January of 1950 wrote agains of Truman's "curious euphoria," which shifted his attention from foreign policy to the welfare state: "There are all sorts of stories about this Presidential cheeriness. He told a Senator a few days ago that the Russians didn't really have the bomb after all." There was more speculation about Truman's preoccupation when Congressman Walter Judd reported the President's boast that he had given Nehru "hell" because India, despite our aid, would not come over to the democratic nations: "'Why,' I said, 'the trouble with you is you just don't like white men.'"
Meanwhile Truman's harrassed Secretary of State, Dean Acheson, was trying to adapt to the impending fall of Chiang in China, and pinning his hopes on "Chinese Titoism."³

It was the Chairman of the President's Council of Economic Advisors, Dr. Edwin Nourse, who seemed to be most influential for the moment. In commenting on the 1951 budget he said it was "of course essential" to prepare for our own security and for joint security with our allies but that it was "no less essential that we put ourselves in as strong a fiscal position as we can." He then went to the Defense Department to insist that funds to implement the Atlantic Pact should be obtained by still further cuts in the American defense budget, or by cutting Marshall Plan appropriations. This happened just after the Administration had strained its influence in Congress to defeat an Amendment by Senator Robert Taft cutting the Marshall Plan appropriation by one tenth.⁴

Joseph Alsop explained Dr. Nourse's behavior by saying that he was acting for John W. Snyder, Secretary of the Treasury. "Inside the White House Snyder is doing his damnedest to get Clark Clifford, and also to move into the field of foreign and defense policy from which he has always been excluded."⁵

European nations also had their Edwin Nourses and their John Snyders. Governmental men of finance in almost all countries found they could defy their foreign affairs chiefs much more easily than they could deny the monetary demands of domestic politicians. At a conference of the Brussells Pact nations in April, a conference intended to work out the first international plan for a force to defend Western Europe, the finance ministers displayed an "hysterical
reaction" to the new but modest force requirements for joint defense. Stewart Alsop reported that their reactions threatened "the whole strategic plan." This particular threat to the successful defense of Western Europe would continue indefinitely.

After the frustration of plans for a joint defense of Western Europe—caused by the finance ministers, and by the governments which could not or would not overrule them—American Diplomat Henry Byroade developed a new policy. Under his proposal, which was approved by Paul Nitze as Kennan's successor at the State Department, there would be a new organization which Stewart Alsop called the "economic and political equivalent to the Atlantic Pact." This was the beginning of the North Atlantic Treaty Organization. The basic purpose was to get the revived productive capacity of West Germany into the defense effort. The occupation would be ended and Germany would become an ally, but would not furnish military forces. The United States, under the plan, would furnish military aid only to the new organization—the plan for furnishing American troops would be revealed shortly after Senate ratification of the pact. The purpose of infusing German and American support into the plan was to keep Britain and France from defaulting the whole scheme for financial reasons.

It is interesting to note that the editors of the very foreign-affairs minded Saturday Evening Post were not at the time interested in an article on the formation of NATO. Editor Martin Sommers wrote the Alsops that the public tires of Atlantic Councils, regardless of their importance. He asked for something on "We're Up to Our Ears in Staff, but Brother Can You Spare Some Soldiers." The soldiers, hundreds of thousands of them from the United States, would be "spared" for NATO.
much sooner than anyone could foresee. In American history the com-
mitment of force overseas appears to occur in periods of resurgent
isolationism. The isolationist attitude toward Asia would increase for
yet another year. During the month when the Treaty Organization for
Europe was being created by American diplomats, a plan for assisting
the French in Indo-China "shuttled around for endless weeks, not
because anyone actively opposed, but simply because that's the way
this damn government operates. Meanwhile the danger to Indo-China
grows."  

If the defense of Asia from Communist military expansion was
almost completely neglected in 1950, that of Europe was only a little
less so. There were only twelve divisions available from all the NATO
nations, along with some 400 miscellaneous aircraft and a few naval
vessels. Most of the Western troops were poorly equipped, poorly
trained, and scattered on occupation duties. Joseph Alsop reported
from Europe a crisis caused by the outstripping of Western power by
Soviet power.

High Commissioner John McCloy in West Germany was making optimis-
tic predictions for the press, but privately he feared the West Germans
might make a deal with Russia unless they were taken into the Atlantic
Alliance. Charles Bohlen in the State Department urged "direct"
American participation in the military defense of Western Europe to
help keep the British from backing away from the effort because of
their economic difficulties. Only Secretary of State Acheson could
do anything about the deteriorating situation, since other members of
the Administration "would far rather not be bothered."  

Editor

Martin Sommers wondered how Acheson could possibly take the offensive.
Marshall-Forrestal-Lovett, he said, had imposed their will on the White House in the case of the Berlin airlift, but "Acheson is not Marshall-Forrestal-Lovett."\textsuperscript{12}

Acheson was not "Marshall-Forrestal-Lovett" but he would come to match them all in prominence, and he was getting some help from Paul Nitze, Kennan's replacement, and from a newcomer in the State Department, Dean Rusk. Nitze, a longtime personal friend of the Alsops, had graduated from Harvard in the '20s, had had a successful Wall Street career, then had gone back to Harvard to study sociology and political science. Dean Rusk already had become a major influence on Acheson, and it was he who drafted Acheson's April 1950 speech on Far Eastern policy. Stewart Alsop considered him colorless and cautious but thought his "surprising rise from college professor to the second most important figure in the State Department might be interesting" to readers of the Post.\textsuperscript{13}

While some new and promising faces were appearing in foreign policy circles, domestic politics began to be heavily influenced by Senator Joe McCarthy, who used the State Department as his whipping-group. Walter Rostow saw Senator Arthur Vandenberg succeeded as the dominant figure in Congress not by Senator Robert Taft, but by Senator McCarthy.\textsuperscript{14} The Wisconsin Senator talked with Joseph Alsop and tried to influence him with an apparent candor that proved false. Stewart Alsop's early judgment was "this whole McCarthy thing has as nasty a smell as anything I've run into...it is the final flowering of a new postwar isolationism."\textsuperscript{15} Admiral Leahy dined with McCarthy and Jean Kerr, who later became McCarthy's wife, and recorded "much
free talk, generally directed against the State Department and the Administration.¹⁶

Alsop wanted George Kennan to write an article saying that the State Department must have a minimum of flexibility and authority. He thought it might correct the impression broadcast by McCarthy that "the State Department is staffed exclusively by traitors and fruits."¹⁷

As the strains produced by rising Russian superiority in Europe and Asia increased, extremist reactions began to attract attention. Former Wallaceites of the 1948 campaign who were not actually party members began flocking to Tito's cause. Among them Stewart Alsop listed William Galimor, Wallace's radio man who had called newsmen "prestitutes," Jo Davidson and Louis Adamic, along with Zilliacus and Alexander Werth in Britain.¹⁸ On an opposite ideological tack, the well-known Commandant of the Air War College at the Air University in Alabama, Major General Orville Anderson, made the mistake of talking with an opportunistic newsmen following dental surgery, plus aspirin and other pain easers. He found himself quoted as advocating the elimination of Russia's "five A'bomb nests," and was quickly suspended by an embarrassed Secretary of the Air Force who was himself believed to be advocating stronger action. Secretary of the Navy Francis Matthews, fresh from taking on what Air Force General Arnold had called the "massing of the Admirals," spoke publicly of "instituting a war to compel cooperation fro peace." Since Matthews was not in uniform, fewer people were frightened, and little was done about it. Stewart Alsop said the speech was inspired by Matthew's superior, Secretary of Defense Louis Johnson, who was himself preaching preventive war, "having first insured that if we do get into a war we are likely to
lose it."¹⁹

The personality and influence of Louis Johnson caused some of the notably unpleasant episodes of American military history. How Louis Johnson obtained his appointment as Secretary of Defense was the subject of some speculation in Washington. On the surface he was as well qualified as other incumbents of that much abused office, especially when compared with some who came to succeed him, but Johnson was personally obnoxious to many people who knew him. As the outstandingly successful fund-raiser for the seemingly hopeless Truman campaign, he was said to have marched directly into the President's office and demanded to be paid off. Vice-President Alben Barkley and Presidential assistants Clark Clifford, Howard McGrath and Leslie Biffle united in opposition but Johnson was supported by famed Democrat Hostess Pearl Mesta, Treasury Secretary John Snyder and especially by Truman's military Aide, Harry Vaughn. Said Joseph Alsop: "Vaughn, Snyder and Steelman have always detested the Lovetts and this dislike has led to a new isolationism which is also derived from their own ignorance and narrowness." A Saturday Evening Post editor warned Alsop that "Johnson is a very vindictive man. Anybody who did a job on him would make a sure and bitter enemy of the Secretary of Defense for the duration of his term of office."²⁰ A Washington correspondent who found his sources "dried up" by the Secretary would indeed be handicapped.

One of Johnson's first actions on taking office was to cut off informal contacts between the Defense Department and the State Department which had been so productive in the past.²¹ Secretary of State Acheson was an official of equal standing. Johnson attacked him
constantly because, according to Joseph Alsop, his "power hunger is so
great and his immediate desire to dominate so irresponsible." When
Acheson was not present at Security Council meetings, Johnson openly
berated James Webb, who took Acheson's place. On one occasion Johnson
sought Acheson in his office where he became so abusive that the dis-
ussion almost came to blows. Senator Cabot Lodge reported to Alsop
what had transpired in a Senate Committee executive session when
Johnson and Acheson were testifying on European aid: "Johnson simply
took over and treated Acheson like an office boy." In private conver-
sations Johnson repeatedly suggested that Acheson was "soft" toward
Russia, unable to control his own department, and unduly influenced by
his friend Justice Felix Frankfurter. 22 After Johnson had entertained
him at dinner "for appeasement purposes" Joseph Alsop reported he was
somewhat impressed by Johnson's efforts to unify the Joint Chiefs of
Staff and to develop a Far Eastern policy but said "the danger is that
he is so ambitious he will try to make phoney economies in the defense
establishment, in order to make headlines, and thus impair our
strength." 23

The chance of wrap himself in the economy mantle was soon given
to Johnson with full Presidential approval. After Truman had sum-
moned defense officials in July of 1949 to announce a cut of 1.4 bil-
lion dollars in the budget for fiscal 1951, Johnson blamed the cut on
the political climate, the ending of the airlift, and the President's
economists. He went to work to show, or to pretend, that he could
cut men and weapons from the defense forces without impairing the
strength of the forces. In a press release that would later haunt
him, he boasted of "a budget that says security first--economy
second--and provides a sufficiency of defense for the hour.\textsuperscript{24}

The unexpected budget cuts imposed new pressures on the military leaders. Recent experience had shown that open revolt was useless since the public in general seemed willing to believe and to hope--whenever the Administration's leaders told them the international situation would permit greater domestic benefits and lower taxes. The military leaders were less mollified than the politicians by the political gains of such an attitude and were more disturbed by the long-term consequences. General Vandenberg sometimes remarked that when the time came to pay for false optimism and for weakness "We men in uniform will have to take the blame and the consequences as always. The politicians who were responsible will no longer be around."\textsuperscript{25}

One military leader was conspicuous for his public support of the political leaders in their budget cutting. General Omar Bradley, Chairman of the Joint Chiefs of Staff, made so many speeches endorsing the President's actions that he was accused of twisting the Military Academy motto into "Duty, Honor and the Administration." General Collins, the Army Chief, told the National War College just before the Korean War, that "saber rattling" by the Russians would ruin the United States if we tried to match the cheaply-produced Russian military strength. Even if the nation doubled its defense effort and spent twenty-five billion this year, said General Collins, it could not do it next year and the next without bankruptcy. He repeated General Bradley's confession to military audiences that more was needed by all the services, especially the Army, and always added that the nation simply could not afford it.\textsuperscript{26}
Admiral Sherman was much more convincing to the same audience when he predicted that the United States might have to abandon the off-shore bases in the Far East and depend upon sea power alone to control the Pacific. He thought strength would soon be lacking to defend Formosa or even Okinawa. He said the Navy, "like everybody else," would have to do the best it could with what it had, and that what it had was not very new. 27

While Army leaders, including General Alfred Greunther, publicly supported the budget cuts, and while the Navy was relatively silent, the Air Force chief was outspoken in his warnings of trouble ahead. He told one audience that the Air Force could not support even 48 groups on the proposed budget, and another that United States forces were not adequate for the threatening situation. Just two weeks before the invasion of South Korea, in another public address, he again disagreed with the Administration policy of limiting and reducing the strength of the Air Force while at the same time placing more and more responsibility upon it. However, historian Robert Frank Futrell adds, even though Vandenberg got on record in opposition to the limited defense posture, his warning did not move the Administration. 28

The new budget cuts in the face of a worsening international situation exacerbated the tensions between the Secretaries of the Services and the military leaders. In the Department of the Air Force, especially, new and ambitious Secretary Thomas Finletter became more and more estranged from his outspoken Chief of Staff, which led Stewart Alsop to observe "Van and Finletter have never been exactly buddies." The quiet Vice Chief of the Air Staff, General Nathan Twining, was more conciliatory. He managed even to expect that there
would be a budget increase the following year, a recurrent hope that had previously proved illusory. General Twining was basing his optimism on a policy paper that became increasingly famous in later years, though it remained an official secret.

When he decided to go ahead with the hydrogen bomb President Truman authorized this special staff study on what kind of defense structure would be appropriate in a world of "nuclear plenty." The study was not tied to budget ceilings. The new chief planner at the Department of State, Paul Nitze, was in charge of a State-Defense team which produced the study in two months. Nitze's planning staff learned from the Joint Strategic Survey Group in the Pentagon that air superiority was essential for successful resistance in Europe but impossible under current budget ceilings. One alternative to building air superiority was to sacrifice American commitments to Allied nations; a second alternative was to act at once, before the Russians amassed a supply of atomic and hydrogen weapons; a third alternative was to build a huge "balanced" force that would remain under arms until the Soviet regime might modify its aggressive policies.

Since neither the surrender of allies nor preventive war was worthy of consideration, the final recommendation was air superiority supported by Naval strength with a moderate buildup of ground forces. In April President Truman referred the paper to the National Security Council which estimated the annual cost of its implementation would be fifty billion dollars.

President Truman postponed making a decision on what to do next, but in April Secretary of Defense Johnson, after calling in General Eisenhower as a consultant to the Joint Chiefs of Staff, asked for
just one-third of one million more in defense appropriations. More than half of the new request was allotted for the purchase of aircraft. General Twining's optimism about the possibility of even a partial implementation of the proposed new policy was not seconded by other experts. Twining saw the new study as a reversal of direction, but to the Alsops it seemed more a matter of words than of action. Joseph Alsop dismissed the paper a few years later with the factual statement: "The famous NSC-68, vainly directing a reversal of the Truman-Johnson disarmament policy, was signed in March 1950, but got no attention until the outbreak of the Korean war." On the crucial problem of what might be the consequences if both sides used nuclear weapons, NSC-68 was silent.

A portion of the supplemental 200 million requested in the Spring of 1950 was used to purchase transport aircraft. The air transport situation in the United States at that time furnishes an example of the slow progress in defense-associated industry. Impecunious Britain had developed and placed in service both turbo-prop and turbo-jet air transports, but there were no turbo-prop airplanes in use in the United States and no turbo-jets even in production. The new Military Air Transport Command was equipped with 300 old four-engine transports and no increase was planned for the next five years. These aircraft would have required nearly a week to transport just two Army divisions two thousand miles. Half of the total military transport capability would then have been occupied in keeping this small force supplied.

While America lagged behind Britain in the design and production of jet aircraft there was an even greater lag behind Russia in missile design and production. The Russians had gone to work near Lake Baikal
on missiles immediately after the war. While the United States Army had brought back from Germany one hundred V-2 missiles, the Russians had appropriated many more and were already improving upon them. It was customary in America to cite the fact that half the German V-2s fired toward London missed the city, but the atomic bomb and the hydrogen bomb, in addition to the inevitable improvements in guidance, changed the picture drastically. At the Army's White Sands missile range in New Mexico the military personnel seemed "to harbor an almost hostile envy of the nuclear laboratory," and with reason. The awesome novelty of nuclear developments continued to overshadow the equally important means of delivery. 37

The Soviets still lagged in long range aircraft although, in addition to their progress on missiles, they had already built some 300 B-29 type bombers. According to Stewart Alsop the CIA estimated that by January 1951 Russia would have 22 atomic bombs ready for delivery by these bombers, and would produce two more each month until 1952 when new plants would raise production to a level which would give them more than a hundred atomic bombs by January of 1953, and 300 by 1956. These estimates were soon raised by fifty percent. In the United States also the atomic program was moving forward far more rapidly than any other military program.

The philosophical David Lilienthal was replaced as Chairman of the Atomic Energy Commission by Gordon Dean on February 15, 1950. Dean had worked closely with the military planners and within weeks he could promise a family of nuclear weapons on a production-line basis. Previously the military chiefs had limited their requests on the theory that fissionable materials would remain scarce. Dean raised
the price paid for uranium ore by 50 percent and improved the technology of production to such an extent that by May it was announced that bombs small enough for fighter planes would be produced. Army Chief of Staff Collins proudly announced the Army would have a nuclear gun, but this weapon proved disappointing and was not fired until 1953. In the use of nuclear material the atomic cannon shell was five times less efficient than the old atomic bombs, while the new small bombs for fighters averaged higher in efficiency than the Nagasaki type bombs. This fact did not prevent considerable controversy, within the Air Force as well as with the Army and Navy, on whether fissionable material should be expended in any weapon other than the largest and most efficient bombs.\textsuperscript{39}

Despite the increasing emphasis on atomic weapons, some military leaders simply could not see atomic bombs as decisive or even dominant in warfare. In late March of 1950 there occurred an interesting exchange between Senator William Knowland of California and General Eisenhower, who was testifying before the Senate Committee on Appropriations. Senator Knowland asked whether the Russian atomic explosion had "not thrown an additional factor into the consideration of the budget." General Eisenhower replied:

\textit{...not as radically as you might think at first blush. The first thing we would have to fear in a campaign that might be launched against us would be the use of land forces against the territory of our allies. There are many difficulties, as you well know, about this business of atomic warfare...\textsuperscript{40}}

General Eisenhower was evidently following both Administration public policy and Army public policy.

On the other hand, General Willis D. Crittendenber, Army Representative and Chairman of U.S. Representatives on the Military Staff
Committee, said "The primary military consideration holding this balance of power is the ability of the United States to deliver an immediate and devastating retaliation by all-out bombing against any aggressor." This, too, was apparently American policy. Ambassador to the United Nations Warren Austin added

If the U.S. were to give up its most immediately available and superior weapon it would, very probably, have to become a huge armed camp in an endeavor to match, soldier for soldier, the strength of the vastly larger Soviet and satellite armies.\[1\]

General Vandenberg expressed the same idea more bluntly by saying "the circumstances of the present offer is no assurance that we would win a major war by conventional means."\[2\] Vandenberg's Strategic Commander, General LeMay, believed that an atomic war occurring in 1950 would be won overwhelmingly by the United States. Soviet air defenses had to cover so vast an area that years of production-line jet fighter production were required to equip it. LeMay thought the Russian offensive capability also was weak, although air defense commanders were less optimistic on this point. In March of 1950 General LeMay spoke to the National War College and was asked by a Navy officer: "We are committed to support European democracies. How can we fulfill this commitment if we give priority to the strategic air effort?" General LeMay's answer summed up what was the dominant thinking of the time, despite much disagreement:

There are more effective ways of helping European allies than sending somebody over to stand in front of the Russian Army. What would happen here if we had a huge land army ready to move and overnight we lost New York, Philadelphia, Chicago, Detroit, and Washington: I doubt that the huge army would move--at least not very far.
General LeMay said also that the strategic bases in England were too close to the Red air force in East Germany to be useful in war. He said Strategic Air Command groups were there "for political reasons." Russian medium range aircraft that could reach England and jet interceptors to protect Russia were being deployed rapidly. A radar warning net was hastily built along Russian borders and American reconnaissance aircraft began mapping the radar system by sensing it while flying outside the borders. From 1949 on, the Russians would occasionally shoot down one of these planes, usually over seas or oceans.

As the Soviet pressures in Europe subsided somewhat after the end of the air lift in 1949 Joseph Alsop made some remarkable predictions:

First, the Soviets will probe and drive against the weak and vulnerable colonial flanks of the Western World, initially in the Far East....A war may be lost on the flanks as easily as on the main front; and in our present case the danger is particularly great, if only because our own policy makers like Chip Bohlen, have not the faintest notion of what should be done to protect these vulnerable flanks.

Six months later, in 1949, Joseph Alsop was even more disturbed that no strength was being built to resist anywhere:

I have just had long, interesting and deeply alarming talks with Frank Pace, Al Greunther, David Lilienthal and one or two other interested parties, on...the defense policy problem. It gives one a pretty trapped feeling to have these very high officials say 'yes we are getting weaker; yes the Soviets may be expected to commit open aggression of the strength curves continue to diverge; yes, nothing is being done about it'.

The same theme was emphasized at a conference of Air Force commanders in Puerto Rico on April 27, 1950. The commanders were told by the Deputy for Operations that the "European bridgehead" was the first goal of American strategy in the West. The hope was, he said,
to hold at the Pyrenees if possible. The weakness of British air
defense would make it impossible to maintain air forces there if under
attack. The Air Force commander in Europe added that his forces in
Germany were too close to the Red air force and would be able to fly
only one mission. Only three fields in France were usable as fall-
back bases.

General Vandenberg told his commanders that the current defense
plan for Europe made no sense because of the inadequacy of the forces
there. He had tried to convince the other members of the Joint Chiefs
of Staff but it would be a long, slow job. The United States Army,
he said, never had learned the meaning of air inferiority in war and
continued to discount its importance. As part of the current plan,
he said, the Air Force was prepared to haul for the Army an unnamed
division to an unknown destination at an unpredicted time.

When the Commander for Alaska demanded some "offensive strength"
to supplement his few fighters there, he was reminded that there was
only one medium bomber group in the entire Air Force. General Curtis
LeMay, the Strategic Air Command chief, said he had only twenty-seven
B-36s available (others were being modified) plus a total of twenty-
seven tankers. Half of the strategic targets in enemy countries,
numbering around a hundred at the time, would require reconnaissance
before they could be struck. The routes into the targets would spread
both north and south of Europe and the entire strategic offensive,
mostly atomic, would require a month with the small force LeMay
possessed.

Air Force commanders then took turns demanding that the Chief of
Staff, who had departed from the meeting, personally acquaint the
President with the seriousness of the situation. They could not believe the President knew. The Vice Chief of Staff, General Nathan Twining, did not take time to explain complexities of Washington policy-making, but assured the commanders that General Vandenberg would do his best.  

As the Louis Johnson economy moves caused more cuts in Air Force strength General Vandenberg admitted that it would now be necessary to bring back to North America some of the meager Air Force strength in Europe and on the Asian perimeter.  

At a pre-Korea briefing in the Pentagon for select Congressmen and Senators, General Vandenberg had little to say. The meeting began with the entry of Louis Johnson which caused a Marine Colonel to say rather loudly "Here comes the bull of the woods now." General Alfred Gruenther of the Army explained that no one was happy with the new low budget but the financial stability of the country demanded it. Anyway, he said, "we military men would fortify the moon if Congress would provide the funds." He was followed by a representative of the Central Intelligence Agency who explained that the Communists were expected to rely on sabotage and subversion to gain their ends. They would, he assured the group, avoid open warfare.  

After the briefers had concluded, Congressman Clarence Cannon of Missouri took the floor. The unhandsome but forceful little man said bluntly that he was unimpressed by all the alibis. Everybody knew, he said, that the armed forces were being dangerously weakened; and as for the professor from the CIA, his story of the Communist love of peace was so much tommyrot. "Everybody knows they are getting ready to fight," said Cannon, and "everybody knows there is goint to be a
war." The trouble is, he said, that people do not like to believe it. They want more roads, bridges, and government spending at home. We Congressmen, he said, have to provide the people with what they want. "We will just have to rely on our fine military men to do the best they can with what they have when the showdown comes."

General Vandenberg rose to agree with the Congressman. He said: "I want to stand up and be counted as one who admits there is going to be war—and soon." No one spoke further, and there was no conversation as the group filed out. 49

At a previous briefing in the Pentagon for business leaders, Secretary Johnson had advanced the theme of Communist war-avoidance in much stronger terms than he had heard it from the CIA. He said that in this country we know—and he repeated the word "know"—that Russia does not plan to conquer the United States by force or by war. They intend, the Secretary of Defense confidently assured his audience, to do it by pushing us into economic collapse and a depression so that the discontented and the agitators and others can take us over in the confusion. He would soon testify in Congress, said Johnson, that the country would have greater combat strength and efficiency under his $3 billion dollar budget than it would have had under the previous $4.4 billion budget. 50

On June 12 of 1950, some three weeks prior to the attack against South Korea, Joseph Alsop predicted on the basis of his recent contacts in Europe that visible Soviet preparations for war would shortly produce a series of Soviet pressures on sensitive spots "comparable to the sort of thing we experienced from Hitler in 1936-38." He said there was danger of giving way before these menaces and that "we come
much nearer to surrender at the beginning of the Berlin blockade than is realized by more than a handful of people." Western Europe was totally undefended, Alsop emphasized, and it would take some two years to build even a skeleton defense. European leaders understood the gravity of the situation and unless preparations against the rising threat were soon begun they would be "unprepared psychologically, morally and politically, for the danger when it comes. Their nerves will fail, and that will be that." The leaders with whom he had talked, "Petsche, Pleven, Atlee and the British Chiefs, all shared this view." Alsop concluded unreservedly "if the Western re-armament is not begun this year it will be hopeless."51

Within days the rapidly worsening situation was suddenly saved by what General Twining has called "a strategic blunder of the first magnitude on the part of the U.S.S.R."52--the Korean War.
Chapter XIII--Footnotes

5. Ibid.
7. Ibid.
16. Leahy Diary, June 11, 1951.
21. Robert Frank Futrell, USAF Historical Study No. 139, Air University.
22. Joseph Alsop to Martin Sommers, June 6, 1949, Alsop Papers; 
   Joseph Alsop to Martin Sommers, June 18, 1953, Alsop Papers.


24. 81st Congress, 2nd Session, Department of Defense Appropriations 
   for 1951, House of Representatives, Part 1, pp. 104-105; 
   82nd Congress, 1st Session, Hearings on the Military Situation in 
   the Far East, p. 2609; Secretary of Defense, press release, 
   Jan 25, 1950, Spaatz Papers.

25. Author's notes.

26. Memorandum, Colonel N. F. Parrish to Chief of Staff, June 5, 1959; 
   also June 20, 1950, Author's notes.

27. Ibid.

28. Robert Frank Futrell, USAF Historical Study No. 139, Air 
   University.


31. Robert Frank Futrell, USAF Historical Study No. 139, Air 
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32. 81st Congress, 2nd Session, Defense Appropriations for 1951, 
   Supplemental Hearings, House of Representatives, pp. 2-9.

33. General Nathan Twining, Neither Liberty Nor Safety, p. 49 ff.


35. Edward Wental and Charles Bartlett, Facing the Brink: An 
   Intimate Study of Crisis Diplomacy, New York, Scribners, 1967, 
   p. 208.

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   Papers, Air Force Academy; General Lawrence S. Kuter, statement 
   of April 19, 1950, Kuter Papers, Air Force Academy.

37. Daniel Lang, From Hiroshima to the Moon, pp. 145, 152.


39. Robert Frank Futrell, USAF Historical Study No. 139; Joseph 
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40. General Dwight Eisenhower Testimony before the Senate Appropriations 
    Committee of the 81st Congress, March 29, 1950, Author's notes.

42. General Hoyt Vandenberg Speech at Milwaukee, Aug. 13, 1949, Author's notes.

43. General Curtis LeMay at the Air University, Feb. 4, 1957, Air University; General LeMay at the National War College, March 28, 1950; Quoted in Memorandum, Colonel N. F. Parrish to General McKee, March 28, 1950, Author's notes.


47. Notes on Puerto Rico Congerence, April 27, 1950, Author's notes.


49. Author's notes on Pentagon Congressional Briefing, June 1950.

50. Memorandum, Colonel N. F. Parrish for General Vandenberg, April 17, 1950, Author's notes.


52. General Nathan Twining, Neither Liberty Nor Safety, p. 51.
Chapter XIV

Conquest in Asia Ends a Dream of Peace

We have seen the human race
Capture all its dreams,
All except peace.

Robinson Jeffers

I was asked the other day for my opinion on the use of atomic
bombs in the present crisis. I had always hoped that neither
the atom nor hydrogen bomb would ever be used against any
people...When war breaks out, however, no one can know what
people will do.

Mrs. Eleanor Roosevelt
July 3, 1950

Unhappily, problems are not less real for being political
rather than military in origin, whatever the generals may
think to the contrary.

Trumbull Higgins

To an American, it is inconceivable that this country should
ever be seriously menaced...but someone who has seen countries
destroyed may have an entirely different view. You smile
about it...you think that's impossible, that America will be
destroyed. But it is not impossible...we are living in
constant danger of nuclear way.

Eugene Wigner

...watch to the north, trust not the dawns. Probe every
cloud. Build power. Fortress America may yet for a long
time stand....

Robinson Jeffers
May 12, 1944

Resistance by the United States to the invasion of South Korea by
North Korea began with an enthusiasm which diminished after months of
fighting. The original view that the Soviets had blundered was fre-
quently questioned. Military analyst Alexander de Seversky believed
that the Soviets deliberately trapped the United States into a contest
of attrition.¹ Foreign analysts were more inclined to regard the un-
precedented war as a military experiment by the Russians. A distin-
guished Greek journalist, Triandafilides, saw the war in Korea as a
Russian test of a new theory of military tactics.²

Triandafilides said the Soviets had come to believe that a big
army of footsoldiers armed primarily with light automatic weapons had
certain advantages. It might be able to defeat a mechanized, air sup-
sported army by combined or alternate use of mass tactics and infiltr-
tion tactics. Air and artillery would be supplied if other means
proved inadequate. It appears that the Russians treated China as a
satellite. There was evidence that the Soviets had to push rather
hard to get China into the Korean War, only to find the whole enter-
prise very expensive after all when the Chinese had to be supplied
with massive amounts of equipment and a very large jet air force.

Viewed in this light the Korean adventure appears a double
blunder for the Russians. It stimulated a huge rearmament effort
in the United States and it forced the Russians to modernize the
relatively primitive armed forces of China, an action which they would soon regret.

Motivations within the Kremlin of 1950 are still a mystery but the actions of the Chinese Communists following World War II are now much better understood. The loss of China to the Communists remains a debatable subject but the causes can now be patiently examined. Among them is the failure of American strategy to establish a base in China along with the conquest of Japan.

The original plan for the movement of MacArthur's forces northward from the Philippines did include bases on the Chinese mainland, but the rapid progress of the air and sea war, and the ability of the B-29s to reach Japan from the Marianas, made this step unnecessary. Although the United States intended to support Chiang on the mainland, the sinkings, the bombings, and finally the atom bombs brought an end to the war with Japan before the Chinese puzzle was thoroughly studied. Again the obsessive dogma that only invasion could bring victory had produced an awkward situation. As Herbert Feis explains it, the United States had to confront "a beaten Jap army and an unbeaten Chinese Communist army sooner than they had figured."³

When the war was over, disagreement about China began in earnest. Secretary of War Patterson learned when he visited Japan in 1946 that records of talks with soldiers at "demobilization" meetings showed some questioners only incidentally talked about coming home. More often they complained about "United States meddling in China," and "How can the United States intervene in China without violating the UN charter?"⁴
President Truman had said in December of 1945 that the United States would not employ "military intervention to influence the course of any Chinese internal strife." Russian Foreign Minister Molotov's diplomacy with respect to China in 1945 focused constantly on the withdrawal of American Marines there. As they withdrew, the Chinese Communists accepted the surrender of Japanese troops over much of China. American ships which were to have moved Chiang's troops north and east for this purpose were months too late. Chiang was unable, finally, to employ his numerical advantage effectively and the American Ambassador to China, Patrick Hurley—certainly no pro-Communist—tried to get the two conflicting governments to work together. After Hurley failed, and quit in disgust, President Truman sent General George Marshall, who had just retired as Army Chief of Staff, to stop the rapidly developing Chinese civil war. Within a month, in January of 1946, Marshall had obtained a cease-fire which was used by the Communists to consolidate their gains and prepare for the next offensive. Through 1946 Marshall endeavored to compel cooperation from Chiang by withholding aid. He continued to work under the illusion that the Communists would eventually "cooperate." In 1947 Marshall admitted the complete failure of his mission, returned home, and a belated effort was made to strengthen Chiang.

The comments of a few military leaders on this series of events, and of Joseph Alsop who was himself deeply involved in China during the war period and the early postwar period, are especially interesting.

General Marshall's role in China has been the subject of much comment. He wrote little about it, but the common opinion has been
that he was simply trying to implement a policy which had been imposed upon him. President Truman seemed to confirm this view by writing "Neither Marshall nor I was ever taken in by the talk about Chinese Communists being just 'agrarian reformers'." Yet Lilienthal quotes Truman as using and emphasizing the term "so-called Communists" because, as he said, "Joe Stalin says that people of North China will never be Communists and he's about right, at that." Admiral Richard Connolly said that Marshall's insistence on Chiang working with Mao "ended up so Marshall wouldn't speak to Wedemeyer. Marshall and Admiral Leahy, who had been close personal friends, had a falling out on the same thing."  

Admiral Leahy had been unable to understand why Marshall was interested in saving the governments of Greece and Turkey, in view of his attitude toward China. Leahy thought China would be more important and less costly to save. When Marshall sent General Albert Wedemeyer back to China in mid-1947, Admiral Leahy gave Marshall credit for "a complete reversal of attitude" because of Wedemeyer's well-known distrust of Communists. Stewart Alsop reported six months later that Marshall was sponsoring a "phony" Chinese aid program. "Marshall's real policy is to let the Chinese Communists win, and then to hope that they have bitten off more than they can chew." Air Force records indicate that Alsop may have been right about this. Air Force aid to Chiang was suspended by Marshall in August of 1946, and the ban was not lifted completely until December of 1947, some six months after the supposed "reversal of policy."  

Secretary of War Patterson received, in mid-1946, a letter from Joseph Alsop complaining about "army politics and general prejudice" in
China and stating: "I admire your loyalty to General Marshall, whom I also regard as a very great man despite his blind spot." 14 Marshall himself was never accused of "treason" by anyone of importance except Senator Joe McCarthy, but other members of the State Department were so accused. Historian Kenneth Moll, in commenting on the State Department's "wavering and noncommittal policies" of 1945-46, explains simply that "many in the State Department were looking forward to the defeat of Chiang's rotten government, preferring the Communist 'agra- rian reformers' of Mao Tse-tung." 15

A report from the Naval Aide to the U.S. Embassy in China was of sufficient importance to be brought to the attention of Admiral Leahy in mid-1947. It stated that Ambassador J. Leighton Stuart, together with Mr. Butterworth, who was counselor of the Embassy, and Mr. Ludden, secretary of the Embassy, "are taking action to cause the failure of the Central Government of China and the success of the Communist rebellion in China." Three months later General Wedemeyer reported to Leahy that Chiang would fall unless he received military and financial aid, and said that Ambassador Stuart should be removed. One year passed before Admiral Leahy could report that the American Ambassador in China had, in late messages, urged all-out aid to Chiang. "By such action he hopes it may be possible to recover from the failure of our State Department during the last two years to provide Chiang Kai-shek with the assistance promised." 16

Meanwhile, elements of the 1st Marine Division, "one of the last shreds of stability in China," were withdrawn. Admiral Oscar Badger had reported that the Communists were about to capture the Shantung peninsula, containing more than 5000 Americans, including 2000 military.
Badger had to collect all of these, since he had been ordered to evacuate Tsingtao. Sady Admiral Leahy: "In my opinion it would be safer to fight whether or not it is politically expedient." As the Communists approached, Badger was ordered by "diplomatic agencies" to withdraw. "He would prefer to hold, which he could do with success for an indefinite time. There does not appear to be any way to obtain for him such an order."¹⁷

An intelligence officer working in the Army's General Staff Corps in 1947 urged that Chiang give up Manchuria to the Russians in order to save the rest of China. "This is heresy here in the General Staff Corps" he wrote, The official policy was a "united China," which was obviously impossible. "Damn these pink-spectacled dreamers of whom we have so many," Colonel H. C. Cunnigham wrote. He complained that since General Hoyt Vandenberg had taken over control of the Central Intelligence Agency, "the current crowd is all Europe."¹⁸

This is a rare reference to the fact that veterans of World War II in Europe dominated military and, to some extent, diplomatic policy in years immediately following the war. The Pacific leadership, except for General MacArthur, was predominantly Navy, and neither Navy nor Air Force officers have been politically influential in America. Veterans of Europe who were associated with Marshall and Eisenhower, preempted most of the influential positions for the first few years, while others awaited the election of Thomas Dewey to the Presidency. Samuel Huntington states that "virtually all the significant rivalry and participation of individual military officers in partisan controversy" was related to the personal identification with "Europe-oriented and Asia-oriented strategies." Even retired officers were
involved: "MacArthur had his Wedemeyer and Bonner Fellers, Eisenhower his Clay and Bedell Smith." 19

A distinguished naval officer on MacArthur's staff during the early occupation of Japan had no trouble identifying with the famous General and his policies, despite the interservice friction that had developed during the war. Admiral John Ballentine admired the way MacArthur resisted Russian and Communist demands in Japan. The State Department, said the Admiral, tried to worm the Russians into the occupation hierarchy but MacArthur had ignored the Russian embassy. He threatened the State Department with exposure if he were forced to accept Russians in an occupation role. Ballentine mentioned State Department representative John Service as, in his opinion, pro-Russian and therefore "dangerous." On one occasion Service and another State Department official had tried to use Navy communication facilities to bypass General MacArthur but were prevented from doing so. 20

Some five years later Stewart Alsop talked to Service and found he was "caught in a trap" because of the charges of disloyalty made against him in the Congress because of his China Policies shortly after the war. The State Department was unwilling to risk criticism by giving Service an important job, yet he felt that his resignation from the Department might be construed as an admission of guilt. Service, said Alsop, had been foolishly indiscreet in passing memoranda to pro-Communist journalists. Though never consciously disloyal, he had thought he "knew all the answers" on China. 21

By 1950 Joseph Alsop had done extensive writing on events in China at the close of the war, some of which refuted the foolish charges of Senator McCarthy. John Carter Vincent, one of the principals in the
events, praised Alsop's work, as did Stanley Hornbeck, former head of the Far Eastern Division of the State Department. Vincent gave Alsop credit for getting the difficult General "Vinegar Joe" Stillwell, who antagonized Chiang, replaced by General Wedemeyer. Acheson disliked Joseph Alsop's accounts of previous events in China and seemed to feel they had called his "good faith into question," but the two remained friends. Alsop reported that John Davies, another principal influence in State Department China activities, had "gone down on his knees" to persuade Mrs. Stillwell not be publish her husband's papers, which would embarrass Davies, but in vain. Alsop wrote "I spent four hours the other day with John Davies, my enemy in the past; and we were just like two elderly, once rival, now retired prostitutes, sitting in our rocking chairs and cackling about our respective triumphs. Poor fellow, he is exceedingly ashamed now of the part he played."

Owen Lattimore, another principal in the China tangle, was a favorite target for McCarthy, who named him once as the master Soviet spy in the United States. Martin Sommers, the Alsop's constant correspondent, said "McCarthy is of course nuts. I have known Owen for 21 years—in Peking and elsewhere." Sommers said Lattimore was no more a Communist than a reactionary, but he could run anyone "a dead heat as an opportunist. Owen is strictly a member of the Lattimore party."

By 1949 there was not much left to do about China except argue about what had been done wrong in the past; yet even that argument was poorly handled by the harrassed Department of State. At the beginning of the year George Kennan was feeling lower than Stewart Alsop had ever seen him. "His suicidal mood sprung from...of course,
the Far East. He gave us about one chance in ten of holding not only China, but South East Asia. He saw the only faint hope as an attempt to split the Chinese Communists from the Kremlin." The only chance for success in this would be through "determined, ruthless and disciplined political warfare. But he doubted we were qualified to pursue this kind of policy, either temperamentally or constitutionally." 25

Kennan continued to take the position in public briefings that Mao might become a Tito, but his manner lacked the old confidence. 26 The Mao-into-Tito hope continued to be "the slim possibility on which our Far Eastern policy appears to be rather hopelessly based." 27 Then came the ultimate blunder, the ill-timed publication of the "White Paper" on China by the Secretary of State. Since it was obviously intended to excuse the poor support given Chiang it meant virtual condemnation of him. The Alsops would not expand on the matter, since Acheson was a friend, but they agreed that the timing of the "White Paper" was not only disappointing but "disgraceful" and that it aided the Chinese Communists. 28

Instead of turning into a Tito, Mao turned toward Stalin, meeting him for the first and last time in Moscow in December 1949. This meeting led to a mutual assistance treaty and within the next five months fifty thousand Koreans in the Chinese Communist forces were transferred to the North Korean army. Scores of thousands of Soviets technical advisors poured into China. Half of them were military. 29

North Korea had been a Soviet satellite since Russian troops moved in at the end of World War II. An independent, stable government in Korea, according to Secretary of War Patterson some five months after World War II ended, was important for reasons that had
nothing to do with China, or with Russia. The purpose behind our support for the Korean government was "as a safeguard against Japan again exploiting the country and using its resources for waging war."  

Korea was divided at the middle by the American admiral at Potsdam who saw the 38th parallel as a convenient line on a map. South of the line the Japanese forces would surrender to Americans and north of the line, to the Russians. Stalin had agreed in the Cairo declaration that Korea should be free and independent, but the Russians refused to cooperate in a Joint Commission to unify the country. They held a one-party election and established a Communist government in the North. By January of 1947 Korea had become the most urgent problem facing the War Department.  

An American intelligence officer recalled: "We knew that the 38th parallel was an asinine stunt and would make trouble." General Willoughby, he said, would not believe it, and asked "Why do you persist in suspecting our allies?" American troops did not move into South Korea until September 8, 1945, one month after the Russians had taken the North. By the end of September MacArthur informed Washington that the Russians had begun a cruel campaign to "Bolshevize" North Korea.  

In May 1947, General Courtney Hodges, the United States Army commander in South Korea requested that the Joint Chiefs of Staff establish a policy as to what he should do in case of the invasion he feared from North Korea. On May 11 General MacArthur told the War Department: "I place little credence in General Hodges' fear of invasion." The Joint Chiefs concurred in a State Department message telling General Hodges to maintain order with the means available.
Secretary of War Patterson then urged the State Department to consider the withdrawal of American forces from Korea because of the Army's urgent need for manpower. In September 1947 the Joint Chiefs of Staff considered the 45,000 American troops there to be vulnerable in a general war and said they were needed elsewhere because of severe military manpower shortages. General Bolte, the Army commander before the withdrawal in June of 1949, stated that he believed the South Korean Army could defend against invasion. 35

The departure of American troops from the peninsula left the 300,000 troops on occupation duty in Japan as the nearest ground defense. These troops were few enough, considering the fact that there were only two of them for each 100 Japanese, which was barely double the ratio of civilian police to citizens in the United States. However, Joseph Alsop did not think much of "all those fat-behind majors, bustling colonels and PX haunting females." Stewart Alsop predicted in April 1950 that their Supreme Commander, MacArthur, would soon be leaving, as the "logjam on the Japanese treaty" would be broken in favor of the State Department and the occupation would be over. 36

It is indeed difficult to fathom why the Soviets picked South Korea for a probe at that particular time. It amounted to a challenge flung in the teeth of the United States, since what few teeth the nation possessed were thicker, though soft, in Japan than anywhere else overseas. Secretary of the Air Force Thomas Finletter said "we got into this peripheral war because the enemy came right down under our noses, where we had the greatest concentration of power outside the United States." 37 In the famous Sunday meeting when the decision
was made to resist the North Korean invasion, the role of the Joint Chiefs of Staff was small. General Vandenberg stated later that there was no time to study the problem or to arrive at a rational decision based on analysis. The discussion was mostly about limiting the American effort and whether or not China or Russia might enter the war.  

Editor Martin Sommers thought the decision to enter the war was right, but slow. "We suffer from Saturday night and Sunday morning sickness in our wars." At Pearl Harbor Marshall was horseback riding, this time Truman was "out home." "Everybody ran around in circles for precious hours." The warnings of our minister in Korea had not been taken seriously when he was in Washington a month previously. A prophetic Saturday Evening Post article four years earlier, by diplomat Harold J. Noble, also had been ignored.

Joseph Alsop was surprised that Soviet probing tactics "have been unveiled so openly, so soon." He said there was unanimous agreement in the State Department that "if the Korean challenge had been ducked" it would have been followed by another, elsewhere. The attack occurred "because the defenses of the west have been neglected...and ought to have the effect of forcing us to do all the things we should have been doing, but were not."

The foreign reaction to the American resistance in Korea was striking. Admiral Ballentine reported a sharp rise in the United States prestige throughout the Mediterranean area. Charles Bohlen and Averell Harriman experienced their "worst 48 hours" in Europe "before the announcement we would meet the Korean challenge" for "the mood of appeasement and surrender was quite clearly overtaking our allies
in this interval."\(^{41}\)

Admiral Leahy wrote in his diary that President Truman, apparently annoyed at being "kicked around" by Communists, ordered MacArthur to defend Korea and Formosa. By mid-July Leahy thought a "Dunkirk" in South Korea was possible. He thought the troops might have to retire south to protection by naval gunfire, and that the reverses should "convince anybody that airplanes cannot be substituted for ground troops." In September he noted that a Russian airplane had been shot down off the west coast of Korea and a Soviet Air Force officer's body found in the wreckage.\(^{42}\)

When Strategic Air Force Commander LeMay was called by General Norstad and told to move a portion of his forces to the Far East, he asked "Do we take the big ones?" Informed that was out of the question LeMay replied "Why fool around with firecrackers?" The Strategic Bombing Survey had shown that some 18 months were required for the bombing of industry greatly to affect troops in the battle lines. Communications were the logical target, but logic was not always followed.

An observant Air Force Colonel summarized the air warfare blunders that resulted from inadequate planning and poor interservice coordination early in the war. Railroads should have been attacked first by the B-29s, from the north down. Troops should have been attacked in the unprotected rear rather than at the fortified front, but there was poor intelligence on rear troop concentrations. The Navy, said the Colonel, should have attacked small barges and boats but were more interested in publicity from "strategic" attacks on cities. They had no practice in mine-laying and were eventually put on bridges,
which were more appropriate targets for their dive bombers than the industries they had attacked in the beginning. By November, in the Colonel's opinion, there was very little south of the Chinese border worth "a strike such as yesterday's that cost two million dollars in gas and bombs alone." 43

The Colonel reported scant admiration for the Commander of the Army Corps whose effort in Eastern Korea was known as "Operation Three Star, Last Chance." "The mere mention of his name should suffice to reveal the general sentiments, not only of the Air Force but of subordinate Army commanders as well toward that individual." General MacArthur had an unfortunate habit of promoting competitive feuds among his staff officers and commanders. Between his two Army Commanders in Korea the bad feeling was notorious. Trumbull Higgins comments that on the Walker vs. Almond conflict "it is regrettable that the great quantities of oral testimony available cannot be cited." 44

There were, of course, the usual disagreements on strategy. General Emmet O'Donnell believed that his five groups of B-29s could destroy everything of value in North Korea in three months but he was told that political considerations prevented it. Army General "Lightning Joe" Collins said the United States might have to rebuild any bombed cities. General Ennis Whitehead was more concerned that the United States had only one fighter plane that could fly against Russian MIG interceptors without escort. "The Navy had none. Our F-86 was barely good enough. Our superb and experienced squadron, flight and element leaders with better fire control made the difference." Before a Senate committee General Spaatz pointed out that
while Russia equipped the Chinese with some 900 MIGs "what should be the foremost air power in the world can only get 150 planes over there to combat the 900 MIGs."\textsuperscript{45}

General Spaatz, who wrote a column for Newsweek magazine for several years, urged on September 4, 1950 "There can be no compromise with the Red Forces in Korea. If to arrive at a complete settlement it is necessary to risk war with Russia, then the risk must be run. It is better to run that risk now that risk now than a few years hence, by which time Russia can be expected to have an A-bomb stockpile." Needless to say, General Spaatz's advice was not followed.

After MacArthur's brilliant and lucky maneuver at Inchon, the way was open to the Yalu and the United Nations Commander allowed his two feuding generals to make a race of it. There were complications. The Air Force Commander, General Weyland, had to maintain communications between the two competing Army Corps, since their commanders had no interest in maintaining communication with each other. Between them to the north the Chinese were massed. Air Force intelligence specialist General Brooke Allen has commented that the intelligence community in Washington at the time thought MacArthur and his staff "let personal feelings interfere with good rationale."\textsuperscript{46}

The race to the Yalu posed certain hazards at best. MacArthur's own intelligence said the Chinese would not enter, and if they did MacArthur's "airpower would destroy them." According to Air Force Secretary Thomas Finletter, neither Air Force Chief of Staff Vandenberg nor his Vice Chief, General Twining, suffered from illusions that air power could stop North Korean and Chinese infiltration of the advance to the Yalu continued. "They had a very realistic
view of what air power could do and what air power couldn't do."47

MacArthur had told Joseph Alsop categorically in Tokyo that the Chinese would not come in. The United Nations commander reported the same thing to the Defense Department and to the President at Wake Island, a fact which Truman came to mention resentfully. George Kennan and other students of Communist behavior believed the Chinese had not wanted to go in, and that they probably were forced to do so when Molotov came to Peking. The payoff was probably the return of Manchuria to Chinese control. The five armies from which the Korean "volunteers" were recruited were those of Lin Pao, meaning, said Joseph Alsop, "That Lin Pao is now the chief Manchurian military figure, instead of the Russian stooge."48

The Chinese intervention brought considerable gloom to Washington and to the country. As Joseph Alsop expressed it, "the shadows seem to be gathering so quickly around us that nothing much really matters any more, and one goes about one's daily pursuits with a sense of total unreality only to be cured by drink--from which I still abstain." Stewart Alsop thought Washington smelled like France in 1940. The Alsops' were not the only aching hearts. President Truman's intimates were seriously worried about his condition. His former cheery euphoria had seeped away, and he had become grim and nervous. "Truman can't sit in his chair for any length of time anymore--he gets up constantly and paces his office, working his hands nervously." Stewart Alsop believed that stories of the President "cracking-up" were exaggerated but

a psychological study of the man's reactions would be remarkably interesting--the sense of inadequacy from the start; the euphoria after the 1948 election, which was I think an unconscious device for concealing the sense of
inadequacy; and now the tendency to crack under the strain when the President has learned that everything is not going to be all right. Such a piece should be done at once clinically and sympathetically... God help us all. 49

General Omar Bradley had said nothing to cheer Joseph Alsop. When he asked Bradley "how much time remained," the Joint Chiefs' Chairman said many people expected war in the spring, many more in two years, and a few still thought it could be held off for three or four years. If war came in a year or two, said Bradley, we would be thrown out of Europe and would have to live in isolation in this hemisphere for fifty to a hundred years. He agreed that would mean complete militarization of the country and might mean eventual defeat by new weapons. Said Alsop "the conversation still haunts me." He later explained his view that Bradley "is a great combat soldier, who has never been the least at home with the vast problems of war strategy and world politics with which he is now required to deal. This, I think, explains his passivity in the Johnson period, as well as his defeatism--and the tone of his conversation was really hopelessly defeatist--at the present time." Saturday Evening Post editor Ben Hibbs, in reply, could not believe Bradley really defeatist; "must have been a mood." 50

In apparent embarrassment over his previous endorsement of the Louis Johnson thesis that Communists would not fight, Bradley made the strange statement that for the first time "Communism is willing to use arms to gain its ends." An Air Force staff officer was not surprised, after he quoted General Bradley, to hear from a Colorado Senator "I would not assume the use of his name right now would help you very much." Bradley went into eclipse as the Korean War continued,
but Secretary of Defense Louis Johnson fell into disgrace. He had not only boasted about strong defenses while he was weakening them, he had spread stories and rumors of a very serious nature, telling Admiral Fechteler, for instance, that Stuart Symington had driven Forrestal out of his mind by a "telephone barrage" designed to stop him from sleeping. Fechteler also heard from Johnson that General Vandenberg was an "unmitigated liar," and finally that there was a row between Truman and the New York Herald Tribune because of the pages Truman had extracted from Forrestal's diary. Fechteler assumed Johnson was fired because the armed forces were in such poor shape, as did most people.51

Admiral Leahy remembered that Johnson had many sharp disagreements with Congress and the military services and "his resignation appears to be an admission of failure." Leahy thought General Marshall, except for his attitude toward China, promised to be a much better Secretary of Defense.52 Steve Early, Johnson's former assistant, helped explain matters by saying: "Don't be too hard on Louis, he just can't help lying." But no one guessed right as to why Louis Johnson resigned so suddenly.53

Some seven years after the event, while dining with Stewart Alsop, Acheson related this story. Averell Harriman was in Johnson's office when the Defense Secretary called Republican Senate leader Robert Taft to say "we've got Acheson on the run at last." He then said "Averell, I think I can assure you--you're in." Harriman left immediately--"after all," said Alsop, "we Groton boys stick together"--and went straight to the White House. Johnson was fired that afternoon. For Harry Truman, consorting with the enemy was "the one unforgiveable sin."54
Louis Johnson was not the only prominent figure to be dismissed by the peppery President early in the Korean War; the firing of MacArthur was a more dramatic event. After MacArthur has been surprised by the Chinese intervention and his defeated troops had retreated to the southern one-third of the Korean peninsula, Generals Collins and Vandenberg of the Joint Chiefs of Staff were sent to talk with him. They found him pacing the floor nervously. He demanded an order either to retreat or to stand and die. Collins and Vandenberg suggested something in between, but the great General wanted it black or white. But when they talked with General Ridgway, the American commander under MacArthur's UN command, Collins and Vandenberg learned that American troops had conducted so rapid a mechanized retreat it would take the Communists weeks to catch up on foot, and that they could be stopped when they did catch up. The envoys from the Pentagon considered MacArthur's dramatics a consequence of so humiliating a defeat following his brilliant success at Inchon.55

The firing of MacArthur was related to his public statements challenging Administration policy, but his military leadership also was a factor. In July of 1950 when MacArthur visited Chiang on Formosa, the State Department was not informed because Louis Johnson had taken that Department off the confidential lift of the Defense Department. Secret cables on the fighting in Korea were also kept from the State Department. The fortunate dismissal of Johnson solved that problem, but MacArthur's continued intransigence finally was too much for the President to bear. According to one of General Whitehead's correspondents MacArthur had said in Japan, privately, that he "intended to take the bull by the horns and just flat force the issue."
MacArthur sent word to a friend, after his relief, that all was going "according to plan." "Apparently" said Whitehead's correspondent "he deliberately elected to force the steps that have been taken. I did not believe Truman would dare the final step." 56

Truman convinced Admiral Leahy he was not worried about MacArthur's popularity on his return. The President told Leahy his policy was "to prevent any extension of hostilities until the U.S. shall have built up a military force that will be sufficient to protect the freedom loving nations of the world against attack from any direction." This was, of course, a large order, never achieved except for nuclear weapons, which were available all along. Nevertheless, the policy had greater appeal than MacArthur's "go-it-alone" policy, which Stewart Alsop found to mean that we would "find ourselves fighting alone" against Eurasia. 57

Both Admiral Leahy and General Whitehead disagreed with the strategy of world-wide build-up and commitment which was followed after Korea, but they disagreed with it for almost opposite reasons. Leahy wanted to depend on conventional forces concentrated in or near the United States; Whitehead wanted to admit dependence on nuclear weapons. Leahy said, "U.S. forces will be widely dispersed while the Russian military will remain concentrated on interior lines in a position to destroy our army in detail." Whitehead was particularly disturbed about Southeast Asia where we might be tempted to follow the "Truman-Acheson" concept of fighting "little wars" to "put up mud-dams against the flood of world communism." Russia and Red China "will simply put more men and equipment in there, and will keep moving south on land through the jungles and eventually we will have lost another
war." Congressman Wint Smith of Kansas wrote Whitehead, "God help any administration that gets us into another Korea in Indochina" and Whitehead replied "I hope we are not insane enough to put ground troops into Indo-China." He said "we learned in Korea there is no such thing as a little war."  

Admiral Leahy wrote in January 1951 "there is a feeling in Washington now which amounts to almost a conviction that the Russian Communist armies will make an invasion of Western Europe in the not distant future." No members of the Atlantic pact except the U.S. and Britain could provide effective forces and the U.S. army was "so small and dispersed" as to make its employment against Russian attack impossible for a year or two. This situation led to rapid expenditures for all the military equipment that could possibly be bought. Stewart Alsop said that when the war started the "brass" made modest requests, starting at 18 billion and moving up to 27 billion. Suddenly they decided Uncle Sam was about to play Santa Claus again so all three services began searching for projects to justify a larger share. All these were clipped together and presented as a "strategic plan" amounting to some 55 billion. Undersecretary Lovett then stepped in and reduced the figure to 40 billion. This pressure revived old battles between the services, with the Army insisting it needed half the 40 billion to equip its proposed 20 divisions.  

The Korean War raised the strength of United States forces from 1.5 million men to 3.5 million, military funds from 12 billion to 41 billion in the first year, and aid from 4.5 billion to 7.1 billion. The Defense budget for fiscal 1951 actually called for an expenditure of 60.7 billion: 20.8 for the Army, 15.1 for the Navy, and 19.8 for
the Air Force. In that fiscal year the Army expanded, partly on paper, from 10 divisions to 18, with separate combat elements equal to six more divisions. The Air Force rose from 48 wings to 95, with more to come, and the Navy increased escort and light carriers from 8 to 15 and large carriers from 7 to 12. The supper carrier whose cancellation caused "the great flattop mutiny" was again authorized, in improved and enlarged design. There was one ominous note—in October the House of Representatives refused a new five and three quarter billion tax bill, and this, of course, meant inflation which would reduce the amount of arms that could be bought with the funds. 60

The buildup of forces was roughly symmetrical, despite the fact that Korea was basically a ground war which gave the Navy no naval targets of consequence and offered bombing planes no primary targets within the restricted target zone. The distribution of resources among the three services reflected not only the fact that the enemy threat was world wide, but also a determination to reduce casualties—a policy which was reflected in the use of artillery at a rate more than ten times that of the enemy. There was no great demand for the use of the most effective weapons, atomic bombs, in Korea. Indeed, one of the principal arguments for fighting the war war the contention that doing so made nuclear warfare unlikely. Trumbull Higgins expressed this theory most logically by defining war as a mutual test of strength, nuclear or conventional, and suggesting that most citizens would prefer the conventional test. 61

Because atomic bombs were not used in Korea it has often been asserted that they importance was greatly reduced by the war. This was far from the case. The existence of the bombs exerted a continuous
and increasing influence throughout the war. General Twining cites the fact that an announcement one month after the beginning of the war that the United States would not use atomic bombs in Korea was followed immediately by a major communist attack on all fronts. He considers it likely that the decision not to use these effective weapons, and the assurance given the enemy he need not fear them, changed the entire course of the war to our disadvantage.62

Twining believes this fearful attitude toward our own major weapon caused trouble and danger for the future by assuring the Russians the United States was "not going to use the atomic bomb, even tactically." Joseph Alsop believed that Soviet plans seriously miscarried in the Korean War and advantages were gained in that the disintegration of Asia was averted and rearmament stimulated in the West, but he feared this miscarriage of Communist plans may have "impressed the Kremlin less than America's failure to use air-atomic power under extreme provocation." Rostow said Korea was a defeat for the United States in that "the nation had gambled, its bluff and been called, and it had not backed its play."63

One public discussion concerning the use of atomic bombs in Korea caused the usual irrational reactions associated with the subject. When Truman replied to a press conference question by saying that the use of the bomb was always under active consideration, the White House finally had to issue a "clarifying statement" to quiet worried Congressmen. Nervous Prime Minister Atlee hurriedly flew the Atlantic to persuade the President against casually dropping the bombs. Yet at least one Congressman, Representative Overton Brooks of Louisiana, along with many citizens, openly demanded the use of the atomic bomb
Army Chief of Staff Collins declared publicly there was no proper target for the atomic bomb in Korea, and the Army backed his position by a survey which failed to find a suitable target. This reflected the Army's feeling that it would continue to suffer a disadvantage, as compared to the other services, until it could get atomic bombs under its own control. "If we enlisted Satan himself as our secret weapon," said Joseph Alsop, "this would no doubt start a furious interservice squabble about operational control of the devil." Collins was wrong in his statement, for use of the atomic bomb had been contemplated to insure, if necessary, the success of an evacuation of Pusan under enemy fire. Also, the Joint Chiefs decided, before MacArthur's return, to bomb Manchurian bases if the Chinese spring offensive in 1951 threatened to break through. At this point the British Joint Chiefs proposed to their American counterparts that atomic bombs be used only against lines of communication and troops in the field—and against cities only in retaliation. This view derived from the exposed British position, but also from the opinion shared by many that striking Russian cities would only unify the survivors behind the existing regime.

The use of atomic bombs in surface bursts and the spreading of radioactive materials also came under consideration early in the Korean War. Lack of testing in this area discouraged the action, as did the general horror of radiation itself. Finally, the armistice was signed in 1953, essentially on the battle line of 1951, only after Secretary of State Dulles threatened Peking through Indian diplomatic channels that atomic war might soon be carried to the Chinese mainland.
As the stalemate in Korea continued there was increasing agreement with the view of Stewart Alsop that "given a real defense, atomic bombs can be used to offset Soviet manpower superiority" in Europe, where the major attack continued to be expected. In 1951 tests near Las Vegas were already finding ways to reduce the weight and size of bombs without loss of efficiency. This made them adaptable to a wider variety of uses. Underground tests, never performed before, were being planned, also under the stimulus of the Korean War. The climax to this trend came when Senator Brien McMahon, who had sponsored the expansion of the nuclear plants, proposed for the first time the concept of the atomic bomb as a substitutional weapon, to perform functions previously assigned to other explosives. On September 18, 1951, McMahon announced on the Senate floor "I propose an atomic Army and an atomic Navy and an atomic Air Force." Thus as the war in Korea progressed—or rather failed to progress—atomic bombs came to be considered as increasingly important and necessary. 67

Less than two months after the outbreak in Korea the Strategic Air Command obtained Joint Chiefs of Staff approval for a new plan which abandoned the previous concept of attacking only industrial and war support targets. The new target list included as a first task, along with blunting the Soviet atomic capability, the retardation of Soviet ground advances into Europe. The eventual integration of Naval aircraft into the attack was also recognized in the plan. 68 Air Forces, as a result of the Korean War, began to be considered too expensive and too scarce for employment on a large scale for delivering conventional weapons. During the Korean War the United States Air Force lost well over one-third of its 1950 strength. When questioned,
in Congressional hearings, on the possibility of victory in an atomic war, General Vandenberg testified that the Air Force could destroy the principal centers in China but attrition to its 40 groups in this operation would prevent its most effective application to other areas, meaning Russia, if that should become necessary. He said it was a "shoestring" air force in relation to its global responsibilities, but that it had kept Russia from going to war. 69

Despite the fact that the Korean War was fought principally on the ground, General Vandenberg's testimony concerning the global power balance was the most nervously awaited and the most discussed. The early commitment of most of the available American combat forces to the tiny, distant and indecisive area of Korea served to intensify American dependence on air forces and on the bomb. As Stewart Alsop emphasized:

Especially now, with all available conventional forces committed in Korea, the only remaining detent to further Soviet aggression is the A-bomb and long range strategic bombers. In fact, the American ability to bomb the Soviet Union is the only real military strength of the United States, now and in the foreseeable future. 70

The strange and perhaps misguided effort to obscure this simple fact from the public gave open reassurance to the enemy. In the view of many military men the publicizing of a false reliance on conventional weapons caused the enemy to take bolder action. Whether or not "deterrence," as it came to be called generally, was the best strategy or policy for the time, it was in the end the only one available, and not even the extensive buildup that followed the Korean outbreak changed that fact decisively. "While deterrence is the Air Force strategy," Joseph Alsop wrote at the end of the Korean War, "it is
by no means that of the other two services. Thus the armed forces are split down the middle on the nature of the war we are trying to prevent.... Only the Air Force seems to have perceived the revolutionary character of the next war and to have adopted a strategy commensurate with it.71

The Air Force along with the other services would have troubles with its strategy in later years when the entire problem would be complicated by a broadening arsenal of nuclear weapons in each of the military services. Lilienthal made the complaint that "we take the position as a nation that atomic weapons should and must be eliminated. But our military leaders are depending almost entirely on atomic weapons in the event of war." The complaint would remain unremedied and even unanswered, since no one ever found an acceptable answer.

In the earliest years, when the United States had all the bombs, and only a few of them at that, it was a matter of budgets that caused no alternative to be provided; but as time moved on the nuclear program moved faster than anything else and came to dominate more than ever, despite all the pretenses that this was not so. Perhaps, as John W. Finney has said, "In the wake of Hiroshima and the first Soviet explosion four years later, it was inevitable that the national military strength should come to be built around a nuclear arsenal."72

Yet the fatally dangerous questions remained--ethical, moral, practical or whatever they might be called. Lilienthal, who kept struggling with the problem, once said: "Most of the talk about the bomb relates to the danger to the world in a physical sense. But isn't the real danger to civilization to be found in the recognition that warfare is no longer conflict within limits imposed by morality,
but without limit, without moral containment."³³

Is it possible for anything to be without limit, or moral containment? Are limits and restraints luxuries or necessities? It was said originally that the real ethical block to such use of the atomic weapon as was made at Hiroshima and Nagasaki is simply that such conduct will result in annihilation. Over the period of this study, that fact became more obvious but little progress was made in adapting to it.

Bernard Brodie wrote early in the Korean war "we have thus far given the Chinese every possible assurance that they could intervene with impunity...we should begin publicizing right now the fact that strategic bombing does not necessarily mean mass slaughter. All the gasping of horror which occurs every time the use of the atomic bomb is mentioned is extremely harmful to us politically and diplomatically."³⁴

Before publicizing that mass slaughter was something to be avoided it was necessary to develop strategies and systems which could make such avoidance possible. Over the decade that followed 1950, and into the next, a few people in responsible positions would work toward this goal. Progress would be made, and setbacks would be suffered, but there would always be someone in a responsible position working on the thorny problem of restraint in imposing restraint.

Henry Adams wrote in his autobiography that every American who lives into the year two thousand will know how to control unlimited power. It was already clear by 1950 that if Americans are to live into the year two thousand they must control their own unlimited power and at the same time inhibit the employment of such power by other
nations far less committed to its control. This almost impossible task was begun by the men who made the right decisions, and who sometimes failed to make the right decisions, in the fateful first five years.
Chapter XIV--Footnotes

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4. Secretary of War Robert Patterson's Journal of his visit to Japan, 1946, Patterson Papers.


13. Stuart Symington to the Secretary of State, Jan. 15, 1948, Spaatz Papers.


29. Carroll Quigley, Tragedy and Hope, p. 908.
30. Secretary of War Robert Patterson, Notes for Press Conference, Jan. 28, 1946, Patterson Papers.
33. Leahy Diary, Sept. 29, 1945.
34. Author's notes.
38. General Vandenberg, statement to the author, December 1950, Author's notes; Trumbull Higgins, Korea and the Fall of MacArthur, p. 25.


42. Leahy Diary, June 26, July 12, July 17, Sept. 5, 1950.

43. Author's notes; Colonel C. J. Bondley to Commander Far East Air Force, Nov. 9, 1950, Whitehead Papers.

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45. Robert Frank Futrell, USAF Historical Study No. 139, Air University; General Whitehead to General George C. Kenney, Aug. 24, 1953, Whitehead Papers; General Spaatz, Testimony, April 22, 1952, Whitehead Papers.


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58. Leahy Diary, May 25, 1951; Congressman Wint Smith to General Whitehead, April 7, 1954, Whitehead Papers; General Whitehead to Congressman Wint Smith, April 9, 1954, Whitehead Papers.


61. Trumbull Higgins, Korea and the Fall of MacArthur, p. 176.

62. General Nathan Twining, Neither Liberty Nor Safety, pp. 52-56.


65. Ibid.; Author's notes; Joseph Alsop, Revolution in Warfare, Alsop Papers; Stewart Alsop to Martin Sommers, April 24, 1951.


68. Robert Frank Futrell, USAF Historical Study No. 139, Air University.

69. Ibid.; Trumbull Higgins, Korea and the Fall of MacArthur, p. 171.

70. Stewart Alsop to Martin Sommers, July 14, 1950, Alsop Papers.


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