

CIVIL DEFENSE UNDER THE TRUMAN ADMINISTRATION:

The Impact of Politicians and Scientists

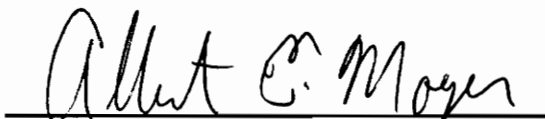
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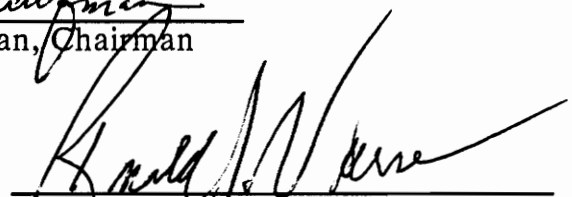
Anne Claire Fitzpatrick

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APPROVED:


Burton I. Kaufman, Chairman


Albert E. Moyer


Ronald J. Nurse

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Blacksburg, Virginia

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Anne Claire Fitzpatrick

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(ABSTRACT)

This thesis chronicles and examines the development of civil defense under the Truman administration. Both Washington's politicians and various atomic scientists embraced civil defense planning as a method of combatting the Cold War and ensuring domestic national security. These efforts resulted in the Federal Civil Defense Administration (FCDA). The FCDA was the product of unrealistic assumptions and poor planning. Congress consistently allotted the agency unsubstantial yearly operating budgets, and consequently the FCDA always remained in the shadow of the larger military effort. Under the Truman administration, the FCDA was materially unsuccessful, because its nationwide shelter program never came to fruition. The civil defense administration's public information program, however, was modestly successful in that it raised public awareness of the possibility of atomic attack.

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Introduction

The Federal Civil Defense Act, which I have signed today, is designed to protect life and property in the United States in case of enemy assault. . . .I congratulate the Congress for its speedy and thorough consideration of this legislation. . . .It will require the best efforts of all of us to get ready, and to stay ready, to defend our homes.¹

President Truman's signing of the Federal Civil Defense Act of 1950 signaled the creation of a new independent government agency -- the Federal Civil Defense Administration (FCDA). The FCDA was the result of years of controversy and erratic and often reluctant planning on the part of the federal government. Until the fall of 1949, Washington's most powerful leaders either ignored civil defense or transferred responsibility for it between several departments. President Truman's approval of an active and independent civil defense administration came only after 1949. The period between 1945 and 1950

¹ Statement of President Harry S. Truman upon signing the Federal Civil Defense Act of 1950, January 12, 1951, *Public Papers of the Presidents of the United States: Harry S. Truman, 1950-51*, (Washington, GPO, 1965), Item 10, 26-27.

witnessed unparalleled military technological growth, scientists becoming increasingly involved in politics, and the Cold War. The United States thought it had a monopoly on the atomic bomb until the Soviet's tested their own bomb in August, 1949. Polls taken in the late 1940's and early 1950's show that Americans overwhelmingly believed that Soviet possession of atomic bombs meant that the weapons would inevitably be used in an attack on the U.S. mainland. For the first time, Americans feared that a war of massive destruction could include the continental U.S.²

The establishment of an independent civil defense administration provides only a hint of the "crisis" atmosphere of the late 1940's and early 1950's. The FCDA under the Truman administration did a great deal of planning and dispersed much information, both factual and not, to the American public. Civil defense under the Truman administration always stood in the shadow of the military defense, but it was the one aspect of Cold War national security that truly hit home. Truman's views on civil defense changed drastically with the detonation of a Soviet bomb and the Korean War. As a means of ridding himself of the civil defense problem, the President decided in 1949 that all civil defense responsibility be transferred to the National Security Resources Board. Truman began to advocate civil defense measures in less than two years. In an address to the American people in December, 1951, the President declared, "Our homes,

² George H. Gallup, *The Gallup Poll, 1950*, (New York: Random House, 1972) 916-917.

our Nation, all the things we believe in, are in great danger. This danger has been created by the rulers of the Soviet Union.”³

Washington’s politicians were not the only public figures with changing concerns about the state of civil defense. American civic leaders from around the nation became increasingly interested in the establishment of an active civil defense administration to guide local civil defense planning. As Cold War tensions mounted, the demands for a strong, organized civil defense organization grew, reaching fever pitch in 1949 and 1950. Mayors and other community leaders, and a handful of Manhattan Project veterans, criticized the federal government’s lack of leadership regarding civil defense.

This thesis analyzes the developments, both of a political and scientific nature, which led to the passage of the Federal Civil Defense Act of 1950. Civil defense was an aspect of national security involving both lawmakers and scientists. Although initially opposed to civil defense measures, a small number of the atomic scientists eventually came to support it as the Cold War intensified, especially after 1949 with the communist victory in China and the outbreak of the Korean War. Civil defense became a “strategy for survival.” The FCDA accomplished little of substance during the Truman administration, because of economic restraint, and mismanagement of civil defense responsibilities. Those responsible for civil defense never received sufficient funds to create a solid national defense network. The FCDA did manage to publish a large amount of propaganda -- some targeting specific groups, most anti-communist in tone, and

³ Radio and Television Report to the American People on the National Emergency, December 15, 1950, *Public Papers of the Presidents*, Item 303, 741.

much of it vague and uninformative as to the dangers from atomic attack. The FCDA was an initiative of U.S. national security policy that never fully accomplished what its planners intended. No wide-scale shelter program, urban dispersal movement, or large constituency of local civil defense organizations ever developed. Even before its creation, lawmakers who framed the Civil Defense Act expressed doubts as to the FCDA's durability and just how it should function. In a time when Cold War mentality prompted the development of new, unprecedented weapons such as the H-bomb, civil defense always remained a few steps behind the military defense effort.

Civil defense in the United States has been examined in an historical context by a few government-sponsored studies and in a small number of academic investigations. Studies sponsored by the federal government largely chronicle the development of civil defense from the first World War through the Cold War era. Such works generally conclude that civil defense was a failed attempt by the federal government to institute a domestic national security program. The reasons which these studies cite for the civil defense program's failure include: 1) lack of interest from the American people; 2) inadequate planning by those responsible for national civil defense; 3) lack of federal appropriations; and, 4) bureaucratic obstacles.⁴

Academic investigations of civil defense also cite poor planning, lack of appropriations, and bureaucratic obstructions as reasons for civil defense's failure

⁴ Government-sponsored historical studies from which I have drawn these conclusions include: Nehemiah Jordan, *U.S. Civil Defense Before 1950: The Roots of Public Law 920*, (Institute for Defense Analysis, 1966).; Harry B. Yoshpe, *Our Missing Shield: The U.S. Civil Defense Program in Historical Perspective*, (Washington, DC: GPO, Federal Emergency Management Agency, 1981.).

to become a large-scale, national success. Such studies focus excessively on the complex problems involved in planning a civil defense program, and on the doubt and skepticism that those within the federal government had regarding it. These studies analyzed civil defense in a strictly political-historical context, and drew comparisons between the civil and military defense efforts, noting the dwarfing of the former by the latter.⁵

My historical study of the U.S. civil defense program is confined to the parameters of the Truman administration. The first chapter details the first federal reports of civil defense, and examines politicians' and public leaders' changing feelings towards domestic national security, which are blatantly representative of Cold War mentality. The second chapter diverges from the usual analysis of lawmakers and politicians, by examining the influence that scientists, particularly Manhattan Project veterans and the Atomic Energy Commission, had on shaping the future of civil defense. The third chapter focuses on the initial efforts taken by the newly created FCDA. While concluding that, overall, the FCDA under the Truman administration failed, this chapter also emphasizes the agency's success in its rhetorical public information campaign.

⁵ The academic historical analyses I refer to include: Thomas J. Kerr, "The Civil Defense Shelter Program: A Case Study in National Security Policy Making," (Ph.D. diss., Syracuse University, 1971); Lyon G. Tyler, "Civil Defense: The Impact of the Planning Years," (Ph.D. diss., Duke University, 1967).

Chapter One - The Cold War, Politicians, and Civil Defense

Civil defense involved a group of activities designed to minimize the effects upon the civilian population resulting from an enemy attack on the United States. These activities included measures taken by civilians under civil authority to minimize casualties and war damage and preserve maximum civilian support of the war effort. American civil defense, which dates from World War II, has been erratic, because responsibility for it shifted between many government agencies. The civil defense administration moved from the U.S. Army (1946-48) to the National Security Resources Board (1949-51), to the Federal Civil Defense Administration (1951-58), to the Office of Civil Defense and Mobilization (1958-61), and to the Department of Defense after 1961.⁶

⁶ U.S. Executive Office of the President, National Security Resources Board, *United States Civil Defense*, NSRB Doc. 128, (Washington, DC: GPO, 1950) 3, Also called the *Blue Book*. United States, Federal Civil Defense Administration, *This is Civil Defense*, (Washington, DC: GPO, 1951) 4.

After World War II, most Americans thought that they would not have to be concerned with civil defense activities. The end of the war meant no more scrap drives, victory gardens, or blackout drills. In June, 1945, President Truman abolished the Federal Office of Civilian Defense (OCD), which President Roosevelt had established during the war.⁷

In 1946 a full-scale civil defense program seemed to be the least of President Truman's concerns. Millions of servicemen demanding their discharges, inflation, and an increasingly unstable relationship with the Soviet Union took most of Truman's time. What interest remained in civil defense in the immediate post-World War II years came from other individuals in the government rather than the President. Between 1946 and 1948, a number of studies concerning civil defense were carried out. These reports included the *United States Strategic Bombing Survey* (1946), *Study 3B-1* (1946), the *Bull Report* (1947), and the *Hopley Report* (1948).⁸ The main purpose of these reports was to define the function and scope of civil defense and make recommendations for establishing a civil defense organization. The USSBS was primarily concerned with the effects of "Fat Man" and "Little Boy" used during World War II; civil defense

⁷ The British during World War II had referred to their program as "civil defense," which Americans adapted after the war's end.; Carey Brewer, *Civil Defense in the United States: Federal, State, and Local*, (Washington, DC: The Library of Congress, 1951) 1.

⁸ The formal names of these reports are:

U.S. Strategic Bombing Survey, *The Effects of Atomic Bombs on Hiroshima and Nagasaki*, (Washington, DC: GPO, June 30, 1946) (*USSBS*)

U.S. War Department General Staff, Office of the Provost Marshall General, *Defense Against Enemy Actions Directed at Civilians*, (Washington, DC: GPO, 1946.) (*Study 3B-1*)

U.S. National Military Establishment, War Department, Civil Defense Board, *A Study of Civil Defense*, (Washington, DC: GPO, February, 1948) (*Bull Report*)

U.S Office of Civil Defense Planning, *Civil Defense For National Security*, Report to the Secretary of Defense, (Washington, DC: GPO, October 1, 1948) (*Hopley Report*)

considerations were only a very small part of the document. The *USSBS* concluded that it was not hopeless to attempt to provide protection for civilians against atomic weapons. It suggested that a national civilian defense organization which stressed preparedness could be the best defense against atomic attack. The *USSBS* did not make any recommendations as to how a civil defense agency should be structured or established.⁹

After completion of the *USSBS*, the Office of the Commanding General, Army Service Forces, requested that the Provost Marshall General further study civil defense and make recommendations as to which agency should be responsible for future civil defense planning and operations. The individual appointed to direct the investigation was Lieutenant Colonel Burnet W. Beers. Beers had taken an active part in the *USSBS*, and strongly believed in the necessity of civil defense. The resulting study, completed in April of 1946, was called *3B-1*. In it, civil defense was defined as the "mobilization of the entire population for the preservation of civilian life and property from the results of enemy attacks, and with the rapid restoration of normal conditions in any area that has been attacked." The report made the assumption that the "same passive defense measures employed against conventional air raids could be adapted to atomic attack, no matter how intensive."¹⁰

⁹ *USSBS*, 41.; Thomas J. Kerr, *Civil Defense in the U.S.: Bandaid for a Holocaust?*, (Boulder, CO: Westview Press, 1983) 19-20.

¹⁰ Kerr, 20-21.; Lyon G. Tyler, "Civil Defense: The Impact of the Planning Years, 1945-1950," (Ph.D. diss., Duke University, 1967) 26, 33, 34. *Study 3B-1* remains classified, but is discussed in detail by Tyler and Kerr. My information on *Study 3B-1* is based upon these two sources.

Study 3B-1 further recommended that civil defense would have to be incorporated into the national defense effort in order to be successful. Civil defense should be based on the idea of self-help. Individuals would be largely responsible for themselves and their property, with some guidance, however, from the federal government. Finally, *Study 3B-1* recommended that the backbone of the civil defense effort should be the military.¹¹

The *Bull Report* was the result of a decision in November, 1949, by Secretary of War Robert Patterson to create a special board to study the civil defense issue. Headed by Major General Harold R. Bull, the *Bull Report* was completed in less than three months. Its major conclusion was that "the fundamental principle of civil defense is self help." In contrast with *Study 3B-1*, it argued that civil defense was not a military responsibility; the National Security Resources Board (NSRB), which had been established in 1947, should be responsible for overall civil defense policy.¹²

No immediate action was taken in response to the *Bull Report's* recommendations. In mid-1947, however, Colonel Beers spoke out again about the need to implement an active civil defense organization. Beers approached James Forrestal, the nation's first Secretary of Defense, urging him to establish an Office of Civil Defense Planning. Forrestal, who regarded civil defense as "of the highest importance," established the Office of Civil Defense Planning (OCDP)

¹¹ Kerr, 20-21.; Tyler, 31, 35-37, 79.

¹² *Bull Report*, 22-23.

on March 27, 1948, and appointed Russell J. Hopley, a midwestern telephone executive, as its director.¹³

Hopley's task was to develop, within eight months, recommendations for a civil defense program. The OCDP submitted the *Hopley Report*, which, like its predecessors, recommended that a Federal Office of Civil Defense be established. The Hopley Report concluded that civil defense must be a joint effort of the federal, state, and local governments. The federal government would function in providing leadership but primary responsibility for civil defense would rest with the state and local governments. The *Hopley Report* was released publicly in November, 1948, and like its predecessors, received little attention from the President and Congress. The only immediate reaction to the *Hopley Report* from President Truman was his relegation of all civil defense responsibility to the NSRB in March, 1949. John Steelman, Chairman of the NSRB at this time, asked William Gill to be Coordinator of civil defense. Steelman in turn relegated the task of civil defense planning to the Department of Defense and the General Services Administration. At this time, Truman saw ". . .no need for a permanent organization, such as a proposed Office of Civil Defense. Rather, I see a definite necessity to continue planning for civil defense."¹⁴

In reviewing these civil defense reports between 1946 and 1948, it is important to keep in mind that they were published *before* the Soviet Union

¹³ Kerr, 22.; Tyler, 79.; Walter Millis, ed., *The Forrestal Diaries*, (New York: Viking Press, 1951) 449.

¹⁴ Kerr, 23.; *Hopley Report*, 14-18.; Memorandum on Civil Defense Planning from President Truman to the Chairman of the NSRB, March 3, 1949, in *Public Papers of the United States: Harry S. Truman, 1949*, (Washington, DC: GPO, 1964) Item 48, 162.; Gregg Herken, *The Winning Weapon: The Atomic Bomb in the Cold War, 1945-1950*, (Princeton: Princeton University Press, 1981) 237.; Eugene P. Wigner, ed., *Who Speaks for Civil Defense?*, (New York: Charles Scribner's Sons, 1968) 35.

detonated its first atomic bomb. A number of Truman's closest advisers did not expect a Soviet bomb for approximately another decade. Accordingly, the threat of a nuclear attack on the continental U.S. was not an immediate issue, and advocates of a strong national civil defense went unheard. Indeed, for a few years following World War II, it became the fashion in America to view atomic power as "friendly." Rather than promote civil defense and encourage fear of atomic bombs, writers and propagandists attempted to soothe the public's concerns over the atom.¹⁵

One influential figure, (both in the political and scientific communities), of the late 1940's who discouraged fear of atomic bombs was Vannevar Bush, who served in World War II as head of the Office of Scientific Research and Development (OSRD). This agency had authority over all government science during the war, and as its leader, Bush reported directly to President Roosevelt. In Bush's widely read *Modern Arms and Free Men* (1949), he argued that fear of nuclear energy was unjustified. With the passage of four years since the dropping of bombs on Japan, he continued, it was now possible to "assess the bomb more objectively." He insisted that "we have more breathing time than we once thought." Because the Soviets lacked both the "special skills" of American science and technology, and the "resourcefulness of free men," they were unlikely to develop an atomic bomb for a number of years.¹⁶

¹⁵ Thomas J. Kerr, "The Civil Defense Shelter Program: A Case Study in National Security Policy Making." (Ph.D. diss., Syracuse University, 1971) 73.; Paul Boyer, *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age*, (New York: Pantheon Books, 1985) 303.

¹⁶ Vannevar Bush, *Modern Arms and Free Men*, (New York: Simon and Shuster, 1949) 40.

Other important figures and government officials in the post-World War II years tended to downplay or misconstrue the effects of atomic weapons. Lieutenant General Leslie R. Groves, former military chief of the Manhattan Project, advised Truman that there existed too much public "hysteria" about the possibility of America's being scourged by atomic bombs. In a radio interview, Representative Marlin Price of Illinois (a member of the Joint Committee on Atomic Energy), said that "the myths created at Hiroshima and Nagasaki have been debunked." One of these myths was that "the devastated areas in Japan could not be entered immediately after the bomb blast. It is now known that this is false." The other "myth" was that radiation caused sterilization.¹⁷

Within the administration itself, President Truman showed little interest in civil defense before the late summer of 1949, although a few individuals, such as Colonel Beers and Secretary of Defense Forrestal, were convinced of its importance. Forrestal vehemently opposed the President's apathetic attitude. Instead, he thought that a permanent civil defense agency should go into operation as soon as possible. Truman relieved Forrestal of his position as Secretary of Defense in March, 1949, mostly because of Forrestal's constant warnings about the Russian threat, and his insistence that the Soviets would have atomic weapons sooner than when Truman's advisors predicted. After being hospitalized for exhaustion and depression, Forrestal apparently committed suicide in May, 1949.¹⁸

¹⁷ Boyer, 306.; Letter, Albert Hamilton of AFL, Radio Dept., to Frank Upman Jr. of the OCD, April 25, 1950, NSRB Central Files, Box 92, National Archives.; Boyer, 303.

¹⁸ Kerr, dissertation, 73.; *First Report of the Secretary of Defense*, (Washington, DC: GPO, 1948) 5.; Herken, 247-248.

The threat to American national security was not as strong as the pressure to maintain American military credibility overseas, especially in Southeast Asia and Eastern Europe. Along with his bid for reelection, Truman was most concerned with halting the growing "Red Tide" of communism in the Far East. Communist victory in China in 1949 helped to crystalize his concerns. By September of that year, civil defense planning, now the NSRB's responsibility, had ground to a halt. The Bull and Hopley Reports were largely disregarded by most of the NSRB leaders. The President and Department of Defense (DOD) were increasingly concerned with the defense budget, in the face of a pending conflict in Southeast Asia. Little time and money were left for serious consideration of civil defense. In addition to its preoccupation with an ongoing Army - Air Force struggle over the use of aircraft carriers and B-36 bombers, the DOD simply did not want responsibility for civil defense. It was not until the implicit threat from a nuclear detonation over Siberia jarred Washington, that the possibility of a Soviet assault on the U.S. would have to be considered.¹⁹

Soviet Atomic Surprise

"I know the Russians would use it on us if they had it," wrote President Truman, in February 1949, to David Lilienthal, chairman of the Atomic Energy Commission (AEC). Ironically, the Soviets successfully tested an atomic bomb (code-named *Pervaya Molniya* or *First Lightning*) less than a year after the

¹⁹ Tyler, 195. Tyler's statement is based on an interview with William Gill, who was in charge of the NSRB in 1949.

President's statement. On September 9, 1949, the AEC's monitoring system picked up radioactivity in the upper atmosphere, indicating that the Soviets probably detonated their device in August. Rainwater samples confirmed that the explosion had been an actual bomb and not an accident. Before the President made a public announcement about the Soviet bomb, he wanted a statement from each member of the scientific committee assigned to study the radioactive samples, affirming that the radioactivity was caused by an actual Russian atomic device. During the President's news conference of July 28, he was asked if there were any official American reports of an atomic bomb explosion in Siberia, which had already been reported in Paris. Truman replied he knew "nothing about it." The President made his public announcement of the Soviet's achievement on September 23, 1949, asserting that the probability of other nations attaining the use of atomic weapons had "always been taken into account."²⁰

The Russian atomic bomb did not spark an immediate reaction from Truman and other national security leaders to step up civil defense as much as military defense. In the first half of 1950, military planning and spending increased rapidly while civil defense planning stagnated. The document challenging the pre-1950 policy of military frugality came in the form of National Security Council Document 68 (NSC-68), which was submitted to the White House in April, 1950, but not formally approved by President Truman until September of that year. For the next few years, it served as the basis of America's national security policy. NSC-68 stressed the aggressive nature of the

²⁰ Herken, 281.; Tyler, 196.; *Public Papers of the Presidents, 1949*, Item 167, 405.; Item 216, 485.

Soviet Union in its design for subversion of the non-Soviet world. It noted that the United States was the Soviet Union's principle enemy and obstacle to expansion in Europe and Asia. NSC-68 assumed that the U.S. had the capability to meet the Soviets effectively, and could unleash the forces of destruction within the U.S.S.R. In response to NSC-68, Secretary of State Dean Acheson and his advisors in the Department of State emphatically pushed for an increased military budget.²¹

NSC-68 emphasized the growing "intensity of the conflict" between the U.S. and the Soviet Union. It also sought to address what it referred to as the Soviet Union "developing the military capacity to support its design for world domination," coupled with "atomic capability." This document estimated that by mid-1950, the Soviet Union would possess ten to twenty fission bombs in its stockpile, with the capability to deliver them. By 1954, NSC-68 predicted, the Soviet Union would have two-hundred fission bombs. Although NSC-68 was first and foremost an urgent call for military buildup, it did recommend that "internal security and civilian defense programs" be developed without hesitation.²²

By the end of 1949 the NSRB had done no significant civil defense planning. There was now mounting pressure on the agency to make strides in establishing civil defense policy. The cry for an upstep in civil defense measures came from some government officials and those citizens who were most clearly aware of the

²¹ Thomas H. Etzold and John Lewis Gaddis, eds., *Containment: Documents on American Policy and Strategy, 1945-1950*, (New York: Columbia University Press, 1978) 384, 391.

²² Etzold and Gaddis, 398-400, 436.

destructive potential of nuclear weapons. Congressman John F. Kennedy, in October 1949, wrote a public letter to President Truman, warning that the United States would become an "atomic Pearl Harbor" by its continued indifference to civil defense. Elder statesman and former civil defense official Bernard Baruch also pressed for an increase in civil defense activities, while the AEC warned that the U.S. should expect atomic bombs to start falling on its cities. Skeptic Vannevar Bush, speaking before the Senate Armed Services Committee (in closed session), insisted that it was virtually impossible to build foolproof protection against atomic attack. The NSRB, contrarily, maintained that the "European experience and possibilities in this country" indicated that protective underground construction was very practical -- at least for most industrial facilities.²³

The NSRB could no longer procrastinate civil defense planning because the threat of atomic attack was becoming more imminent. Although the United States was unquestionably the world's strongest military force, the perception at home was that it was losing the Cold War. A Gallup Poll taken in February and March of 1950 revealed that 58 percent of those surveyed knew what the term "cold war" meant, while 42 percent did not. Of those who understood what the Cold War was, 23 percent of Americans felt that the nation was losing, while 16 percent felt it was winning. The rest believed neither the United States nor Russia was winning, or did not know. In another Gallup Poll about the atom bomb, 45 percent of Americans surveyed believed that Russian possession of

²³ Kerr, dissertation, 73.; *New York Times*, October 10, 1949, 9:1.; *New York Times*, October 11, 1949, 2:2.; Allan Winkler, "A 40-Year History of Civil Defense," *Bulletin of the Atomic Scientists*, (June-July 1984) 16. Hereafter referred to as the *BAS*, or *Bulletin*.; *New York Times*, October 31, 1949, 41:1.; *New York Times*, February 10, 1950, 1:2.

atomic bombs increased the likelihood of another world war. When asked about the possibility of conflict, 28 percent said a war would be less likely, while the rest said there would be no difference or did not know.²⁴

First Lightning signaled, at least in earnest, the end of American nuclear monopoly and the beginning of the Soviet-American arms race. The President's announcement of a Soviet atomic test came as a shock to many Washington officials, such as General Groves and former Secretary of State James Byrnes, who had believed that a Soviet bomb was many years in the future. Dean Acheson and David Lilienthal had closer guesses of 1950 or 1951 as the likely birthdate of a Soviet bomb. Upon the President's announcement, Chairman of the Joint Chiefs of Staff General Omar Bradley and Dean Acheson immediately agreed that there should be a shift in national policy because of the Soviet achievement. As a result, military defenses were stepped up, and the need for civil defense was reassessed. On January 30, 1950, President Truman gave the go-ahead to proceed with the rapid development of the Hydrogen bomb (Superbomb). The "Cold War mentality" dictated the increased speed at which the AEC pursued its quest for an H-bomb. This quest was also fired by the accusations of nuclear espionage and by Air Force - Army rivalry. In the wake of the military increase, civil defense finally received serious consideration.²⁵

Events of 1949 were enough of a threat to U.S. national security to persuade the Joint Committee on Atomic Energy (JCAE), under the leadership of

²⁴ George H. Gallup, *The Gallup Poll, 1950*, (New York: Random House, 1972) 897.; *The Gallup Poll, 1949*, 869.

²⁵ Herken, 301.; *New York Times*, October 2, 1949, IV, 3:7.; Barton J. Bernstein, "Truman and the H-Bomb," *BAS*, (March, 1984) 12.

Connecticut's Senator Brien McMahon,²⁶ to begin hearings on the state of the nation's civil defense. Although the hearings were supposed to begin in November, they did not actually get underway until March, 1950. Two important issues emerged from the hearings. One was partisan criticism of the Truman administration's lack of efforts towards civil defense. The other was fear that the Soviet Union might develop and deploy a nuclear arsenal. A number of witnesses testified in favor of a strong national civil defense plan. Among these were mayors of large American cities, representatives from the American Legion, and members of a civilian protection agency from New York City. They complained about the lack of leadership in civil defense and sparse amounts of information from Washington about what to do in case of nuclear attack. Mayor Elmer E. Robinson of San Francisco charged that "We are not prepared because, as of the date, the civil defense of our people from atomic attack seems to be nothing more than a buck-passing operation of the first magnitude between top Federal Agencies. . .but it has been five years since Hiroshima, and more than three years since Bikini, and during this period, so far as I can determine, the National Government has been fumbling the ball of civilian defense."²⁷

Mayor Fletcher Bowron of Los Angeles contended that the average citizen believed the federal government was shrugging its responsibility for civil defense. According to Bowron, the "Federal responsibility is divided among four or five

²⁶ McMahon became known as "The Atomic Senator" for his attempts at understanding issues of science and society.; An Interview With Senator McMahon," *BAS*, (January, 1952), 6.

²⁷ U.S. Congress, Joint Committee on Atomic Energy, *Civil Defense Against Atomic Attack*, 81st Cong., 2nd. sess., April 3, 1950, 141, 144. By this time, the United States had conducted three series of nuclear tests: "Trinity" (1945); "Crossroads" (1946) and; "Sandstone" (1948).

or any number of unrelated and uncoordinated Federal agencies and departments. Those of us at the civil level see this division and we are confused. We do not know whom to follow and who is responsible for the plan and who is doing the job.”²⁸

Besides harshly criticizing the government, most of those who testified before the JCAE subcommittee expressed fear of the Soviets. A common theme in the JCAE hearings was: “The Russians have the bomb, thus they will inevitably use it.” Father Paul C. Potter, consultant to the National Security Training Committee of the American Legion, stated: “There can be but one logical conclusion: namely, that the Kremlin planners know the weakest point of the world’s strongest nation -- its susceptibility to panic. . . .The very nature of such an [atomic] attack [by the Soviet Union] and the devastating results will provide the precise requirements for national panic.”²⁹

In September, 1950, in response to the cry for a more active civil defense, the NSRB issued a 162-page plan commonly called the *Blue Book*, which was very similar to the *Hopley Report*, issued eighteen months earlier. The *Blue Book*, however, was published *after* the Soviet’s had achieved a nuclear detonation, and in consideration of the deepening conflict in Korea. Accordingly, it called for a separate, independent civil defense organization. The military, it stated, was to have essentially no responsibility for civil defense except in terms of providing warning, of making technical assistance available, and assisting civil defense

²⁸ Ibid., March 17, 1950, 86.

²⁹ Ibid., March 20, 1950, 107-110.

authorities in determining likely target areas. The *Blue Book* emphasized the need for economic frugality in civil defense planning, and the responsibilities of states in preparing for an attack. It stated that the responsibility of the federal government should be to establish "a civil defense plan with accompanying policy, and to issue informational and educational material about both." The federal government, it suggested, would provide courses and facilities for schooling and training."³⁰

The federal lack of effort towards civil defense continued to be criticized not only by mayors and governors, but also from those who had much greater familiarity with the destructive potential of the atom. Eugene Rabinowitch, editor of the *Bulletin of the Atomic Scientists*, stated that a "stockpile of atomic bombs is now being accumulated by the Soviet Union. . . .The greatest danger for us lies in the fact that the Soviet Union can overcome her inequality in atomic weapons. . .we have wasted five precious years [1945-1950]." Rabinowitch called for the immediate development of an effective civil defense program as not only a safety measure but also as a deterrent to the Soviet Union.³¹

The Government Begins to Respond

1950 was a crucial year for civil defense in the United States. The NSRB began to conduct civil defense planning despite overwhelming disorganization.

³⁰ Kerr, 24-27.; *The Blue Book*, 5-13.

³¹ Eugene Rabinowitch, "Civil Defense, The Long-Range View," *BAS*, (August-September, 1950) 226-228.

Most individuals within the NSRB were not certain if civil defense would ever become the responsibility of an independent agency. The NSRB finally took initiative, however, and began drafting plans for endeavors such as the distribution of safety manuals. As 1950 drew to a close, President Truman began to speak out in favor of the civil defense effort and the NSRB busied itself with planning. On March 1, 1950, Paul J. Larsen³² was appointed Director of the NSRB's newly established Civilian Mobilization Office, replacing William Gill as the NSRB's Civil Defense Coordinator, who had served in this position for twelve months. Former Secretary of the Air Force W. Stuart Symington replaced John Steelman as Chairman of the NSRB. At this time, the NSRB commenced sending civil defense pamphlets and documents to the State governors. Most of these were advisory bulletins outlining the relationship between the federal and state and local governments, and federal objectives in civil defense planning. Officials on the local level, though, still complained about the lack of leadership from the federal government.³³

Leadership in civil defense planning turned over quickly, and responsibility for it shifted between different agencies. The following tables³⁴ show those individuals responsible for civil defense during the Truman administration, in addition to their titles and duration.

³² Larsen remained in this position for only six months, because he did not support a large, national civil defense establishment.

³³ *Progress Report on Civil Defense Planning Under the NSRB, March 3, 1949 - March 3, 1950*, NSRB Central Files, Box 94.; Wigner, 92.; Brewer, 18.

³⁴ Source: Wigner, 22.

Table 1. Names and titles of civil defense directors under Truman

Name	Position Title
Harold Bull	War Dept. Board Pres.
Russell Hopley	DOD/OCD Director
William Gill	NSRB CD Coordinator
Paul Larsen	NSRB CDO Director
James Wadsworth	NSRB CDO Director
Millard Caldwell	FCDA Administrator

Table 2. Duration of directors listed in Table 1

Name	Tenure	Months
Bull	Nov. 46 - Feb. 47	3
Hopley	Mar. 48 - Oct. 48	7
Gill	Mar. 49 - Mar. 50	12
Larsen	Mar. 50 - Sept. 50	6
Wadsworth	Sept. 50 - Dec. 50	4
Caldwell	Jan. 51 - Nov. 52	22

Some cities in the United States had already taken steps towards civil defense planning because they were tired of waiting for the federal government to give direction. In fact, Milwaukee Mayor Frank Zeidler put into operation a civil defense organization as early as 1948. New York City had had a civil defense organization since World War II, under the leadership of the influential

and outspoken Mayor Fiorello LaGuardia. By September, 1950, New York City had also issued its own Bomb-Defense Guide without significant assistance of the NSRB. In the wake of recent publications concerning the effects of atomic weapons, Arthur W. Wallander, New York City's Director of Civil Defense, asserted that the radioactivity of atomic bombs had been greatly exaggerated, and caused fewer casualties than heat or blast.³⁵

In 1950 the number of publications pertaining to atomic weapons increased sharply. Although these publications were intended to inform citizens of the dangers of nuclear weapons, they often dismissed such hazards as easily avoidable. Richard Gerstell, a consultant in the Office of Civil Defense Planning under James Forrestal, published *How to Survive an Atomic Bomb* (1950), in which he downplayed the effects of atomic blasts. As an example, Gerstell stated that of the 42,000 servicemen present at the Bikini test, "not a single one was hurt." Atomic radiation was not harmful to those at Bikini because "they were prepared. . .[and] knew how to take care of themselves." Gerstell also noted how scientists at Hiroshima and Nagasaki, who had studied the Japanese survivors, concluded that of those who had burn scars, none had developed cancer in the five years since 1945. "Not one ray caused cancer in all those thousands of cases," Gerstell declared. The most likely reason for death from an atomic bomb, he concluded, would be from blast, secondly heat, and lastly from radiation, because protection from it was easily found.³⁶

³⁵ Frank Zeidler, "A Mayor Looks at Civil Defense," *BAS*, (August-September, 1950) 249.; *New York Times*, September 6, 1950, 1:6.

³⁶ Richard Gerstell, *How to Survive an Atomic Bomb*, (Rinehart & Company, Inc., 1950) 6,7, 10, 14-15, 16, 123.; Interestingly, the civil defense planners prescribed strict gender-roles for civil defense workers. Men

In the same year that Gerstell published his work, the Los Alamos Scientific Laboratory issued a report, *Effects of Atomic Weapons* (1950). This study by the AEC and DOD, for civil defense workers, was primarily a technical report about bomb blast and thermal effects on structures and people. In the report, radioactive fallout and poisoning were dismissed as not representing "a real danger." As the NSRB increased its civil defense planning activities during 1950, it gathered information on estimated atomic bomb effects and casualties. Reports by the NSRB during 1950 include assumptions similar to those in *Effects of Atomic Weapons*.³⁷

In December, 1950, the Senate Committee on Armed Services began consideration of the proposed Civil Defense Act. Senator Estes Kefauver, a Tennessee democrat, served as Chairman. These hearings, like the March JCAE hearings, were laced with sentiments of fear of what the Soviet Union might do with an atomic bomb. JCAE Senator McMahon, one of the postwar architects of the AEC, explained the rationale for the hearings. "I informed the Vice President in the Senate when I made reference to the bills," he stated, "that. . .the purport of explosion of the Russian bomb was not lost among us; of course, we would not consider civil defense. . .if it were not in fact the Russians have achieved production of this weapon."³⁸

could serve as fire-fighters, rescue workers, rebuilders, and auxiliary police. Women could participate in car-driving, child care, hospital work, emergency feeding, and social work. Jobs deemed appropriate for both sexes were geiger crews and medical teams.

³⁷ Los Alamos Scientific Laboratory, *Effects of Atomic Weapons*, (Washington, DC: GPO, 1950) 274.; First Draft Casualty Estimate Based on Japanese Experience, declassified, NSRB Central Files, Box 94.

³⁸ U.S Congress, Senate, Committee on Armed Services, *Federal Civil Defense Act of 1950: Hearings before a subcommittee of the Committee on Armed Services*, 81st Cong., 2nd sess., December 6, 1950, 11, (Hereafter referred to as *Senate Armed Services Subcommittee Hearings*).

As in the JCAE hearings, several mayors testified on behalf of the need for a Federal Civil Defense Agency. Most expressed sentiments similar to McMahon's. "Despite the earnest efforts and the fervent prayers of good people all over the world," Mayor John B. Hynes of Boston remarked, "it becomes more apparent each day that Russia, spearheaded by her willing satellites, is determined to take over the world." Mayor Zeidler told lawmakers that the conflict in Korea, in itself, proved the case that a strong civil defense program was necessary. Zeidler argued that while the major proportion of current publicity was being given to the A and H bombs, one needed to consider the "attack of the North Korean Government on the South Korean Government -- an attack that has served to instill in many persons the firm conviction that there is no longer any other alternative to a steady, rapid expansion of civil defense." Zeidler further blasted the federal government for losing "precious time in steering civil defense in a direct channel."³⁹

In beginning its plans for a civil defense program, one of the NSRB's first priorities was to protect the nation's capital. Civil defense planners naturally assumed that Washington, D.C. would be a priority target in the event of a nuclear attack. It was important to the civil defense planners, therefore, to provide space for 100,000 to 150,000 people in locations outside the Washington area. In the event of atomic attack on the Capitol, the NSRB assumed both "that weapons of no less destructive force than A-bombs will be used," and that the Soviets would find the areas surrounding the Washington Federal district not

³⁹ Ibid., 13, 45-46.

worth targeting. Dispersal of cities and industry would remain foremost on the NSRB's agenda rather than the training and development of local civil defense organizations.⁴⁰

When the Korean War broke out in June, 1950, stories about civil defense suddenly became more widespread in newspapers and magazines. Many Americans were afraid that the Soviet Union might come into the war and drop its few atomic bombs on the U.S. At a Conference of State Civil Defense Directors, W. Stuart Symington warned that we should not be "lulled into any false sense of security" by so far defeating "this least strong satellite of the Russians." Symington continued to warn state civil defense directors to continue their drive for civil defense programs because the time would come when the Russians would have a large atomic stockpile and would undoubtedly attack.⁴¹

By the latter half of 1950, Americans were increasingly concerned with the possibility of a Soviet attack. A study conducted in September and October of 1950 analyzed the public's thinking on the subjects of war, military attack, and civil defense. The majority of those surveyed had very little understanding of atomic weapons' effects, and also considered the A-bomb as the weapon most likely to be used in the event of war upon the U.S. Citizens were asked if they accepted the authorities' reports on the effects of atomic weapons and who they trusted the most concerning atomic weapons. In response, a crucial 49 percent

⁴⁰ Memorandum from Jess Larsen, General Services Administration, to W. Stuart Symington, *Statement of Basic Principles and Assumptions Governing Preparation of the Long-Range Plans for the Nation's Capital*, June, 1950, NSRB Central Files, Box 94.

⁴¹ John M. Dowling and Evans M. Harrell, eds., *Civil Defense: A Choice of Disasters*, (New York: American Inst. of Physics, 1987) 12-13.; Statement of W. Stuart Symington, *Conference of State Civil Defense Directors*, Oct. 2-3, 1950, NSRB Central Files, Box 16.

said they believed atomic scientists, 19 percent believed military experts, and only 12 percent trusted government officials. The remaining 20 percent did not know. This survey also found that 42 percent of Americans received their information on atomic bombs from newspapers, 24 percent from magazines, 4 percent from movies, and 2 percent from books. The remainder did not know. Most adults who were surveyed believed that civil defense work was a worthwhile effort because bombing of U.S. cities was probable. Most believed that present civil defense conditions in their cities were inadequate, and wished the federal government would provide more direction and help build better facilities.⁴²

Civil defense planning gained momentum during the last months of 1950. The NSRB continued to turn out safety manuals for state and local civil defense authorities, while the Senate Armed Services Committee held its hearings to approve the then-proposed Civil Defense Act of 1950. James Wadsworth warned that there could be no "mass evacuation of our great cities," and that a "take to the hills mentality" would only prove devastating if citizens did not stay to protect strategic target areas and defend their communities. By this time, civil defense had become a familiar term among civic leaders. Pressure on the federal government to "do something" was so strong that it was merely a matter of time before civil defense legislation was enacted.⁴³

⁴² Public Affairs Group, "Public Thinking About Atomic Warfare and Civil Defense," Highlights from a Study Based Upon a Sample-Survey in 11 Major Cities, Sept.-Oct. 1950, (Ann Arbor: University of Michigan Survey Research Center, 1951).; This survey also found that civil defense information did not reach lower-educated groups. Among urban Americans, one person in three reported having gotten no information on atomic bomb effects or civil defense measures. A quarter of those individuals said they did not have the slightest idea what to do in case of atomic attack.

⁴³ News Release of NSRB, November, 30, 1950, NSRB Central Files, Box 92.

On December 15, 1950, President Truman, in a radio and television report to the American people, declared a national emergency. Truman warned of the "danger" created by the rulers of the Soviet Union and of the crisis brought about by the "forces of communism" overrunning Korea. He stated that along with the U.S. plans to counter communist aggression with a strong defense mobilization, "The Government is also moving forward with a strong civil defense. In addition, I have recommended legislation to the Congress which will authorize the Federal Government to help the States and cities in their civil defense preparations." The FCDA (Public Law 920) was created on January 12, 1951. It was to have an unstable life, never becoming the large-scale program its planners intended.⁴⁴

⁴⁴ *Public Papers of the Presidents: 1950*, Item 303, 745, Item 304, 746.

Chapter Two - Scientists, The AEC, and Civil Defense

Scientists were convinced "that the invention of atomic weapons. . .[would make]. . .another total war the suicide of civilization," wrote Dr. Eugene Rabinowitch, in 1950. Scientists working on the Manhattan Project during World War II were aware of the immense power they were unleashing, and of the political and ethical controversies that would result. While J. Robert Oppenheimer and Leo Szilard remorse over the bombings of Hiroshima and Nagasaki, Ernest O. Lawrence and Edward Teller thought of the atomic bomb as the "terrible swift sword" that ended the war. The project veterans found they were becoming increasingly involved in national security matters. The most divisive issue for the scientists in the post-war years was military security. On one side was a majority of the project's most prominent alumni, who, believing that America's atomic monopoly was temporary, advocated international control over nuclear weapons. On the other side was a minority, who, regarding

America's atomic monopoly as essential to national security, believed that larger, more powerful bombs should be developed. Civil defense after 1945 was a national security concern not only for civilians and politicians, but also for individuals and agencies directly responsible for the scientific and technological aspects of atomic energy. Although the NSRB and later, the FCDA, was primarily responsible for the nation's civil defense planning and programs, its decisions were heavily influenced by the JCAE, AEC, and a handful of the atomic scientists.⁴⁵

No matter what views the scientists shared, however, civil defense planning and responsibility were not the foremost concerns of Manhattan Project veterans and other scientists in the years immediately following World War II. Between 1946 and 1949, the Federation of Atomic Scientists (FAS) had "more pressing issues" to address than advising how to construct bomb shelters. In 1945 at the first meeting of the group which would become the "Atomic Scientists of Chicago," four measures were proposed for discussion: (1) international control of atomic energy; (2) world government; (3) union of democracies; and lastly, (4) dispersal of cities. This last item on the Atomic Scientists agenda was to remain the least important until the end of the decade. The first three measures on the scientists' agenda differed from the last in that they provided alternatives to the threat of atomic war; the last was the only possible means of reducing the consequences should war actually happen. In 1945 "dispersal of cities" was

⁴⁵ Richard Rhodes, *The Making of the Atomic Bomb*, (New York: Simon and Schuster, 1988) 757.; Rabinowitch, "Civil Defense: The Long-Range View," 226.; Martin J. Sherwin, "Scientists, Arms Control, and National Security," in *The National Security*, ed. Norman Graebner, (New York: Oxford University Press, 1986) 105.

almost synonymous with civil defense. By 1949, however, dispersal of cities had become only one distinct part of the proposed civil defense program.⁴⁶

After Hiroshima and Nagasaki, scientists gained new prestige in America because of their help in winning the war and because they were the ones who gave citizens most of their information about nuclear energy. Scientists initially came out publicly with information about nuclear weapons, and also became involved in politics, according to Spencer Weart, because they were "guilty men." Albert Einstein agreed, saying that those who had worked to develop the atomic bomb were later driven to work for peace as an atonement. Oppenheimer declared, in 1947, that the atomic scientists had "known sin." Many scientists conveyed their feelings by describing publicly what an atomic bomb could produce in regards to the range of blast and degree of damage. Warnings of doom were intended to alert the public of nuclear dangers. In one instance, the scientists' lobbying group at Los Alamos sent lumps of fused sand from the trinity test site to 42 American mayors as a hint of what could happen to their cities in the event of all-out war.⁴⁷

Because they believed there could never be adequate protection in an atomic war, the scientists did not consider civil defense a pertinent issue. Instead, their goal was to convince all nations to put nuclear energy under international control. Only a little over a year after the bombings of Hiroshima and Nagasaki, William A. Higinbotham, Chairman of the Administrative Committee of the Federation

⁴⁶ Quote from Dr. Robert E. Marshak, VPI&SU, June 19, 1991.; Rabinowitch, "Civil Defense: The Long-Range View," *BAS*, (August-September, 1950) 226.

⁴⁷ Spencer Weart, *Nuclear Fear: A History of Images*, (Massachusetts: Harvard University Press, 1988) 113-114.

of American Scientists, wrote an article for the *New York Times Magazine* entitled "There is no Defense Against Atomic Bombs," which was read by millions of Americans. Higinbotham avowed that the scientists were tired of saying: "For every offense there will be a defense." Given the tremendous power of new and improving weapons, he remarked, "Defense against atomic attack was humanly impossible." Higinbotham also harshly criticized the *United States Strategic Bombing Survey's* civil defense recommendations "for running for cover and digging huge shelters," saying they were "incredible." His criticism echoed Bernard Baruch's statement to the United Nations that "All of us want to stand erect, with our faces to the sun, instead of being forced to burrow into the earth like rats."⁴⁸

The *Bulletin of the Atomic Scientists of Chicago*, (later shortened to the *Bulletin of the Atomic Scientists*), became a popular channel for the scientists to express their opinions on American national security and atomic weapons policies. Higinbotham wrote in the *Bulletin* that American security policy, in 1946, faced a choice of two paths. One choice was for the U.S. to ardently seek a system of world cooperation under law. The other was to retreat into a policy of defense and decentralization of population, which was ultimately useless because there "was no foreseeable defense to stop atomic bombs and certain other weapons of mass destruction." The A-bomb, he asserted, was both cheap and powerful enough to destroy the cities of the world.⁴⁹

⁴⁸ William A. Higinbotham, "There is no Defense Against Atomic Weapons," *New York Times Magazine*, (November 3, 1946) 11, 48-50.

⁴⁹ William A. Higinbotham, "The Road to Security," *Bulletin of the Atomic Scientists of Chicago*, (August 1, 1946) 27.; Higinbotham also noted Albert Einstein's opinion on the choice which the scientists wanted

As already noted, the only aspect of civil defense the scientists would acknowledge before the Soviet atomic tests was the possible dispersal of cities. In 1946, scientists Jacob Marshak, Edward Teller, and Lawrence Klein authored an article in the *BAS* entitled "Dispersal of Cities and Industries." Because an atomic war would cause American cities to become deathtraps, dispersal would save lives and maintain peace. Dispersal would mean the difference between the extermination of a third of the U.S. population and only a few million. Evacuated populations and industries would also make targets less tempting for the enemy. Therefore, they proposed new city designs which were intended to make heavily industrialized and populated areas less desirable air-raid targets. Such designs included "Ribbon" and "Linear" shapes. Lawrence, Teller, and Klein argued that if a city were to be stretched out into a long, straight or wavy line it would be safer from air attack since its industry and citizens would be spread out over a large area. Most American cities of the time were roughly in the shape of round clusters, making them viable targets because large areas could be destroyed with fewer weapons.⁵⁰

Those scientists who did write in the *Bulletin* about the feasibility of dispersal were a minority. When the subject of war preparedness was first broached by the scientific community, many of their leaders argued that if actions were taken to reduce the vulnerability of American cities, it would appear as if

to make: "Rifle bullets kill men, but atomic weapons kill cities. A tank is a defense against a bullet, but there is no defense in science against the weapon which can destroy civilization. Our defense is not in armaments, nor in science, nor in going underground. Our defense is in law and order."

⁵⁰ Jacob Marshak, Edward Teller, and Lawrence R. Klein, "Dispersal of Cities and Industries," *BAS*, (April 15, 1946) 73.

American political leaders expected war, thus defeating the purpose of policies directed toward international control of atomic energy and the outlawing of atomic weapons.

Many scientists had concluded, after August 6, 1945, that it was their duty to shape American policy concerning atomic energy, thus marking the beginning of the "scientists' movement" in America. Before working to fulfill the points on their political agenda, the scientists' first objective in 1945 was to defeat the forthcoming bill in Congress which would essentially militarize the atom and place it in the realm of stringent secrecy.⁵¹

"In a world menaced by atomic holocaust," chemist Rabinowitch insisted, "politics and science could no longer inhabit separate realms." The "scientists' movement" into the political world was underway in less than two months after Hiroshima and Nagasaki, when the Federation of Atomic Scientists (FAS) rallied in opposition to the May-Johnson bill. This was a measure drafted by the War Department and introduced in Congress in October, 1945, which would have placed all atomic research and development under military control. Because of the prospect of military control and its strict secrecy provisions, the scientists vehemently opposed the May-Johnson bill and vigorously campaigned against it. To counter the May-Johnson bill, the Senate created a Special Committee on Atomic Energy led by Brien McMahon, who became a champion of the scientists and others who opposed the May-Johnson bill. The result was the passage of the

⁵¹ Rabinowitch, "Civil Defense: The Long-Range View," 226,; Boyer, 49.

Atomic Energy Act of 1946 -- also referred to as the McMahon Act -- which established a civilian controlled Atomic Energy Commission.⁵²

In signing the bill into law, President Truman stated, "[t]he Atomic Energy Act's first point is that a free society places the civil authority above the military power, [thus] the control of atomic energy properly belongs in civilian hands"; but this was not the case in practice. The passage of the McMahon Act appeared to be a victory for the scientists. However, by the time it was approved by Congress, it had been amended to include strict security provisions and a Military Liason Committee as part of the framework of the AEC. The Atomic Energy Act's resemblance to the May-Johnson bill caused strife between the military and the civilian scientists in the following years.

In the post-World War II years discord also grew within the AEC as official secrecy became more stringent and the public was increasingly excluded from information about atomic energy. Along with increased secrecy measures was an active governmental effort to assuage public concern about atomic bombs. At the same time, however, the scientists and other non-military persons were working for just the opposite -- to frighten the public into awareness.⁵³

The late 1940's witnessed the AEC's attempt to create a "peaceful, civilian image," by staging campaigns such as the "peaceful atom." Chairman David Lilienthal often appeared in the media as "Mr. Atom," enthusiastically emphasizing the positive uses and ultimate good of atomic energy. By the end

⁵² Boyer, 50-52.

⁵³ Boyer, 51-52, 306.; Statement of President Harry S. Truman, July 24, 1948, J. Robert Oppenheimer Papers, Box 46, Library of Congress.

of 1947, though, even Lilienthal had concluded that the Commission had not successfully conveyed the peaceful atom message he espoused.⁵⁴

Throughout the 1940's all the objectives on the FAS's agenda except for the dispersal of cities faded with the scientists' movement. Of all the scientists who had advocated world government, only Albert Einstein remained at the forefront, believing that only a "supernational organization" could prevent atomic war. This idea gained some brief popularity among a minority of the American public and media personalities, but was met with increasing criticism from the popular press toward the end of the decade. The apex of the international control movement had come in 1946, when Undersecretary of State Acheson and David Lilienthal, and several consultants including Oppenheimer, drafted a report for the United Nations Atomic Energy Commission (UNAEC). Bernard Baruch delivered the Acheson-Lilienthal report at the UNAEC session in June, 1946, making a plea for world peace, and calling for a moratorium on the production and use of atomic weapons. Soviet delegate Andrei Gromyko's rejection of the proposal had signaled the beginning of a rapid decrease in the hope for international control.⁵⁵

Increasing Atomic Secrecy

⁵⁴ Boyer, 304.; Richard G. Hewlett and Francis Duncan, *Atomic Shield: A History of the United States Atomic Energy Commission, Volume II 1947-1952*, (University Park, PA: University of Pennsylvania Press, 1969) 96, 126.

⁵⁵ Boyer, 34, 53-54.

On July 1, 1946, the United States began a series of atomic weapons tests, known as Operation Crossroads, at the Bikini Atoll in the Marshall Islands; it quickly became known as one of the biggest media circuses in American history. The first of these tests, Able, was conducted with much publicity and sensationalism. To the disappointment of radio listeners, however, the bomb missed its target by about two miles. The underwater blast on July 25, Test Baker, was much more impressive. Even though it inflicted long-term injuries on the servicemen present, its short-term result of no harm to a single serviceman (of 42,000) at Operation Crossroads, was reassuring to the public.⁵⁶

The reports of Operation Crossroads which reached the public contained no findings of blast or radiation danger to humans. The official report of Operation Crossroads contained little more than a sensationalized chronology of the events which took place at Bikini. Some individuals present at Bikini came out publicly with their own accounts of the tests. David Bradley was a physician who had served in the Radiological Safety Unit of Operation Crossroads. In 1948, Bradley published *No Place to Hide*, a journal of his day to day experiences at Bikini. It became a best-seller in the U.S. Bradley claimed he did not intend to make a political statement. Nevertheless, he charged that the results of the Bikini tests "remained buried in the vaults of military secrecy." He also insisted that, while less spectacular than Hiroshima and Nagasaki, the Bikini tests gave a clear warning of lingering radioactivity. He concluded that there was "no real defense against atomic weapons." *No Place to Hide* was both criticized and praised. The

⁵⁶ Boyer, 83-84.; *Radio Bikini*, (Crossroads Film Project Ltd., 1987) distributed by Pacific Arts Video.

Pentagon was angry at Bradley for publishing the journal because it threatened the secrecy the military wished to retain concerning the tests. "You can't imagine the trouble you have caused us with that book of yours," one Pentagon official told Bradley. On the other hand, activists who had been disillusioned in their cause for world control of atomic energy welcomed it as a possible boost to the resurgence of their movement.⁵⁷

Bradley's work was published at a time when the Cold War was intensifying and it seemed to the scientists that international control of atomic energy was becoming a pipe-dream. As it became clear that atomic competition, rather than cooperation, was the course of the future, government and military officials began to take seriously the prospect of civil defense. An increasing number of scientists also began to stress the need for civil defense. Those scientists who were closely connected with, or working for the federal government, were the first to address civil defense possibilities. One scientist who wrote extensively on civil defense was Ralph Lapp, who was employed at the Office of Naval Research. During World War II, Lapp had been Assistant Director of the Manhattan Project Metallurgical Laboratory in Chicago and also served as scientific advisor to the

⁵⁷ David Bradley, *No Place to Hide*, (Boston: Little, Brown and Co., 1948) xii-xiv, 164-165.; Boyer, 91.; W.A. Shurcliff, *Bombs at Bikini: The Official Report of Operation Crossroads*, (New York: William Wise and Co., 1947) passim.; Commander of the Bikini Joint Task Force, Vice Admiral William H.P. Blandy, testified before Congress that the Bikini tests were for "scientific" purposes. The dual purpose of the tests was, according to Blandy, to determine the effects of atomic weapons on naval vessels, and to conduct "experiments" on animal and plant life. The tests proved only that atomic bombs could destroy and damage naval vessels, and demonstrated nothing new as far as the weapon's effects on living things. Blandy had tried to legitimize the Bikini tests as "scientific" by arguing that many former Manhattan Project scientists would be participating in the experiments, but in actuality only scientists who were employees of the Navy, Army, or War Department were allowed to work at Bikini. None of the Manhattan Project leaders were asked to participate, and General Groves even took steps to insure that J. Robert Oppenheimer was not allowed to take place in the tests except as an observer. Much controversy surrounded the true reason for the tests, which, as many observers and historians have argued, was because of interservice rivalry between the Army and Navy.; Herken, 224.

War Department General Staff. In 1948, he published an article in the *BAS* describing the effects of a supposed atomic bomb explosion over an American city. He labeled his imaginary target "City X," which was supposed to represent Washington, D.C. Lapp was one of the first scientists to admit that by 1948 there was little hope of international accord and elimination of war, and that therefore civil defense would undoubtedly have to become a viable proposal.⁵⁸

In 1949, Lapp published *Must We Hide?*, the first full-length work issued after World War II which was devoted to civil defense, although it contained a strong political statement in defense of the government's policy of atomic secrecy. In *Must We Hide?*, Lapp acknowledged that the "American people remain[ed] in ignorance of many facts about atomic bombing," but he wrote assuringly that "the real facts. . .are not top secret, secret, or even restricted." In further defending the government, Lapp conceded that radiation was dangerous, but just a normal hazard of modern living. David Bradley later charged that the government commissioned Lapp to write *Must We Hide?* as a rebuttal to *No Place to Hide*.⁵⁹

Lapp sent a mixed message to his readers. He called American cities "excellent targets for an aggressor," yet assured Americans that the space within U.S. borders isolated the nation from attack. Lapp also reassured his audience, three years after Hiroshima and Nagasaki, that it would probably be many years before an enemy would have long-range high-speed aircraft capable of delivering

⁵⁸ Ralph Lapp, "Atomic Bomb Explosions - Effects on an American City," *BAS*, (February, 1948) 49, 54.

⁵⁹ Boyer, 91, 314.; Ralph Lapp, *Must We Hide?*, (Cambridge: Addison-Wesley Press, 1949) ix.

atomic weapons, and that other nations would not have atomic bombs until 1952.⁶⁰

Lapp specifically addressed civil defense prospects in the United States, warning, "Our days of peacetime indifference are numbered." Ironically, the atomic bomb offered, in his opinion, an opportunity for millions of Americans to greatly improve their living conditions by dispersion. Suggested were radical new plans for urban living that included a satellite city, rod city, and doughnut city. The thrust of these proposals was to reduce target attractiveness. Similar to the suggestions made by scientists Lawrence, Teller, and Klein in their 1946 *BAS* article, the purpose of such non-traditionally shaped cities was to spread both industry and homes out over a larger area than would be possible in a typical circular city. Lapp also called for civil defense preparedness through measures such as rehearsing evacuation procedures, and organizing geiger crews and rescue workers. Overall, the tone of *Must We Hide?* was optimistic, stressing that preparedness coupled with America's wide land-mass would enable the nation to survive any nuclear threat.⁶¹

Vannevar Bush, who, as mentioned earlier, had played a significant role as a driving force behind the development of the first atomic bombs, also reassured Americans of the unlikelihood of atomic attack. Because of Bush's stature, his opinions were valued by both civilian government leaders and the military. In

⁶⁰ J. Robert Oppenheimer had predicted, in 1946, that other nations would have atomic weapons in five years, given that they were becoming cheap and easy to make. William Higinbotham, also in 1946, had predicted that other nations would develop atomic weapons possibly within four years.; Article in *San Francisco Chronicle*, August 4, 1946, in Oppenheimer Papers, Box 178.; W.A. Higinbotham, "The Road to Security," *BAS*, (August 1, 1946) 27.; Lapp, *Must We Hide?*, 150, 157.

⁶¹ Lapp, *Must We Hide?*, 150, 157, 161-164, 167.

Modern Arms and Free Men, he acknowledged the need for civil defense measures, but warned that we should never "become so obsessed with a defense [military and civil] system as to invite disaster." Instead, federal appropriations should go into the development of atomic weapons and systems to insure their delivery to enemy targets. Military defenses, according to Bush, should be developed first, then it would be reasonable to add a civilian defense system to cope with a possible atomic attack on the U.S.⁶²

The Scientists Address Civil Defense

While by the fall of 1949 some government officials and civic leaders began advocating civil defense, most scientists still ignored any possibility of a civil defense program. With the explosion of the Soviet bomb, however, the last item on the scientists' agenda -- the reduction of American vulnerability to atomic attack -- became "...a problem of practical policy." In September 1950, the *BAS* devoted a whole issue to the topic of civil defense. Editor Rabinowitch, in an article titled "Civil Defense: The Long-Range View," justified the change in the scientists' policy from "[t]here is no defense," to an embracement of civil defense measures.⁶³

Rabinowitch stated that civil defense measures could reduce the damage to people, industry, and transportation. Dispersal of cities could deprive an enemy

⁶² Bush, 127, 134.

⁶³ Rabinowitch, "Civil Defense: The Long-Range View," 226.

of worthwhile targets for bombardment. The scientists' earlier argument of "not to prepare for war lest you invite it," seemed less convincing in 1949 and 1950 than it did in 1946. Rabinowitch subtly criticized the U. S. and Western Europe for having belatedly realized that they gave away their chance of ensuring peace "when they failed to maintain their wartime military strength until a complete settlement with the Soviet Union had been reached." The U. S. and Western Europe had failed to integrate the Soviet Union into an international security organization which would insure disarmament and world control of atomic energy. By 1950, it was too late. While preparedness alone would not maintain peace indefinitely, it could delay aggression.⁶⁴

Other individuals contributing to this particular issue of the *BAS* included Mayor Zeidler, W. Stuart Symington of the NSRB, and, of course, Ralph Lapp. All argued in favor of a strong, nationally guided civil defense program. In a 1982 interview with Paul Boyer, Lapp stated that he deliberately wrote about civil defense in the *BAS* during the late 1940's and early 1950's as a politically acceptable means of awakening Americans to the larger nuclear threat.⁶⁵

In this issue of the *BAS* Lapp again discussed the need for dispersion of cities in an article titled "The Strategy of Civil Defense." Still maintaining that crowded American cities were the heart of vulnerability to atomic attack, and that the U.S. needed to reduce the concentration of buildings and people in them, he criticized the federal government because "[n]othing of any substance had been

⁶⁴ Ibid., 226.

⁶⁵ Boyer, 413.; Boyer interviewed Ralph Lapp on December 28, 1982.

accomplished in the past five years." Unless America prepared for dispersion, Lapp wrote, the nation would never know "true civil defense."⁶⁶

This issue of the *BAS* was published just before the NSRB released its *Blue Book* in September. Lapp predicted sarcastically, that the NSRB's report would merely be a revised edition of the *Hopley Report* and that there would be "something for everyone" in it. He thought the NSRB's report would try to show that the government was actually "hard at work on civil defense," in an attempt to pacify politicians and civic leaders. Lapp was pessimistic in regards to the *Blue Book* because he felt that Washington had, up to this point, taken the attitude that the average person should not be told the facts about the A-bomb because they either would not understand them or become panic-stricken. Washington believed the facts about atomic energy should remain secret, but secrecy was "a mighty thin excuse for stalling on civil defense" because the Russians now had the A-bomb. This represented a crucial turning point in scientists' attitudes about civil defense; some began to realize that a working federal agency was more important than merely a plan for dispersal of cities. In concluding his essay on the need for civil defense, Lapp contradicted what he had written in *Must We Hide?*, by stating that withholding the facts from the public was an affront to the American democratic tradition.⁶⁷

⁶⁶ Ralph Lapp, "The Strategy of Civil Defense," *BAS*, (August-September, 1950) 241.

⁶⁷ *Ibid.*, 241-243.

The AEC's Role

Lapp's criticism of Washington's withholding information was in agreement with other scientists' and officials' concerns about the increasing secrecy within the AEC. While Lapp argued that civil defense must be led by civic leaders and it could not be masterminded in Washington, some members of the AEC were trying to establish the organization's specific role in civil defense. In addition, criticism from the scientific community increased as the AEC continued in its policy of withholding atomic information from civilians.⁶⁸

As the AEC's first chairman, David Lilienthal was in a precarious position. In the Commission's early years, Lilienthal often appeared in public with a positive, hopeful message about the beneficial uses of nuclear energy. Lilienthal made numerous public appearances and gave many interviews between 1946 and 1950. In private, however, Lilienthal became increasingly discouraged with the growing Cold War and shroud of secrecy surrounding the AEC. Lilienthal was deeply disturbed by the failure of the AEC to gain public understanding and, like the scientists, believed that civil defense might be a politically acceptable means of awakening the public to nuclear threat. Lilienthal wanted his agency to become involved in the civil defense effort, although not financially. In the summer of 1949 acting NSRB director John Steelman requested Lilienthal's comments on the NSRB's preliminary report on civil defense planning. In July, Lilienthal wrote to Steelman saying, "We anticipate that the Commission's role

⁶⁸ Ibid., 243.

in civil defense planning will be in large measure one of supplying information to other agencies with primary responsibility for civil defense planning. . . .”

Lilienthal further commented that the AEC would help provide “. . .some aspects of planning such as research, training, and public education, but these activities would be largely incidental to the fulfillment of the Commission’s responsibilities under the Atomic Energy Act.” Lilienthal further made it clear that the AEC would not be responsible “to budget these activities separately under the heading of civil defense planning.” In November of the same year Lilienthal again wrote to Steelman, calling attention to “the country’s lack of a civilian defense policy at a time of mounting fears over the possibility of atomic warfare.”⁶⁹

After forcing the resignation of Paul Larsen and publicly admitting the NSRB had wasted much time and effort, John Steelman wrote to AEC Commissioner Gordon Dean in October, 1949, saying that at this time the AEC could do nothing in regards to civil defense because the NSRB had not yet done anything. Nevertheless, Lilienthal was still enthusiastic about a national civil defense program, especially in light of the secrecy in which the AEC was operating. Since even the JCAE was not allowed to know just how many atomic bombs the U.S. had, the public was essentially “in the dark” as to the United States’ nuclear capability, much less Soviet capability. Whether civil defense

⁶⁹ Hewlett and Duncan, 350.; Boyer, 126.; David Lilienthal to John Steelman, “Civil Defense Activities of the AEC,” July 7, 1949, David E. Lilienthal Papers, National Archives, Box 3.; Nehemiah Jordan, *U.S. Civil Defense Before 1950: The Roots of Public Law 920*, (Institute for Defense Analyses, May 1966) 96.

programs were truly effective or not, Lilienthal was aware that such efforts did allow civilians to do something in regards to their safety.⁷⁰

Lilienthal believed that the AEC occupied a key position in the civil defense effort because it was the principle source of information on the atomic aspects of defense problems; the public regarded its utterances as authoritative. In particular, the public looked to it more than any other agency for guidance on the subject of atomic weapons. The AEC was supposed to function as a source of education for the public, but Lilienthal found that there was a definite "lack of education progress." Blaming this partly on the failure of the "machinery" to disseminate information, and partly on poor means of presenting information, he felt the AEC's own operating experience "should be. . .a source of basic facts," but that the secrecy of its operations contradicted this.⁷¹

Like Senator McMahon and scientists Lapp and Rabinowitch, Lilienthal sensed that public apathy existed alongside ". . .a latent state of hysteria regarding the mysterious menace of attack with atomic weapons in the event of hostilities. . . ." These public attitudes, Lilienthal concluded, were the "Achilles' Heel of the atomic energy program."⁷²

Since the NSRB had, as Steelman stated, "done nothing" about civil defense, it appeared that initiative would have to come from somewhere else. Senator McMahon showed his concern by announcing on October 10, 1949, that the

⁷⁰ Entry in Office Diary of Gordon Dean, Box 1, Folder 170, U.S. Department of Energy, Germantown, MD.

⁷¹ "AEC Public Education on Hazards Related to Atomic Energy," Folders 1, 10, AEC Office Files, Department of Energy.

⁷² Ibid., 10.

JCAE had voted to conduct hearings on the state of civil defense. McMahon was determined to address the problem of civil defense, which, he said, had been "long forestalled by the federal government." As noted earlier, The JCAE hearings did not get underway until the following March, but indicated the lawmakers' genuine acknowledgment of the civil defense problem. McMahon believed in the importance of continuity in the operation of essential government defense agencies; to him, civil defense was just as important and crucial as military defense. McMahon agreed with the scientists' initial goals of a moral crusade for peace and world-wide control of atomic weapons, but by 1950 he realized that the Cold War had grown so frigid that embracing civil defense was the only logical thing to do. McMahon, like many lawmakers, was deeply afraid of Soviet possession of atomic weapons. Upon hearing of *First Lightning*, he insisted to David Lilienthal that only a preemptive attack on the U.S.S.R. could prevent a world holocaust.⁷³

In late 1949, the JCAE lifted all AEC spending limits. The AEC's activities increasingly became a point of contention between Lilienthal, along with most of the scientists on the Commission's General Advisory Committee,⁷⁴ and a group of conservative Senators on the JCAE. In a continuing effort to remove the liberal Chairman from his post as head of the AEC, Senator Bourke

⁷³ Statement of Senator Brien McMahon, August 31, 1950, JCAE Records, Box 115, National Archives.

⁷⁴ The General Advisory Committee (GAC) to the AEC was a nine member panel of the most renowned Manhattan Project scientists. Members between 1947 and 1949 included J. Robert Oppenheimer, Lee DuBridge, Enrico Fermi, Hood Worthington, Isador I. Rabi, James Conant, Hartley Rowe, Cyril Smith, and Glenn T. Seaborg. The Committee's role was to advise the AEC regarding major policy issues. According to chemist Glenn T. Seaborg, "there was never a group more influential" than the original GAC, in forming atomic energy policy matters. The Committee overwhelmingly supported Lilienthal and was critical of the Commission's policy of secrecy.; Author interviewed Glenn T. Seaborg on November 8, 1991.

Hinckenlooper attacked the efficiency and competence of David Lilienthal and other AEC personnel, in May, 1949.⁷⁵ Hinckenlooper charged the AEC with "incredible mismanagement," "maladministration," lost uranium, waste, and employing individuals with "strong communist leanings." He called for the immediate resignation of Lilienthal. Although many AEC members and government officials came to Lilienthal's defense, he found himself frustrated with the Commission⁷⁶ and resigned from his position as Chairman on December 31, 1949. He later confessed to an aid that the AEC had become "nothing more than a major contractor to the Department of Defense."⁷⁷

⁷⁵ David Lilienthal initially had a very difficult time getting confirmed as Chairman of the AEC. He had resigned as head of the Tennessee Valley Authority (TVA) in order to accept his position with the AEC, and several Senators were determined to stand in his way. Kenneth McKeller of Tennessee particularly disliked Lilienthal because he had blocked the elderly Senator from using his patronage powers at the TVA a decade earlier. During Lilienthal's confirmation hearings McKeller and others accused him of being a communist and a Russian appeaser. Lilienthal countered his accusers with a deeply moving speech on the fundamentals of democracy.; Interview with Glenn T. Seaborg.; Hewlett and Duncan, 1, 8.

⁷⁶ Dr. Seaborg made a connection between Lilienthal's resignation and the H-bomb, remarking: ". . . Although I don't know if Lilienthal would admit this, when the AEC recommended against a crash program for developing the H-bomb, [at] the end of 1949, January 1950, they [the Senators] went after him again. When President Truman, at the end of January, 1950, made the decision to go ahead with the H-bomb, Lilienthal resigned about this time. . . It was kind of a final blow."; Interview with Glenn T. Seaborg.

⁷⁷ Boyer, 305.; Public Statement of Senator Bourke B. Hinckenlooper, May 22, 1949, in Oppenheimer Papers, Box 46.; Herken, 320.; Hewlett and Duncan, 358.; Before Senator McMahon insisted on getting the JCAE civil defense hearings underway, it was apparent that the more conservative members of the JCAE were preoccupied with spies, traitors, and the government's "paying for the education of communists." David Lilienthal, and Dr. D. Newton Richards, (President of the National Academy of Sciences) opposed these actions. Robert Oppenheimer, in a letter to Senator McMahon, cited many discoveries basic to the present work of the AEC which were made by communists and left-wing scientists. He also criticized the increasing secrecy within the AEC. At a press conference of Atomic Energy Information, Lee DuBridge stated that "[b]asic science, even connected with military technology, cannot be kept secret. New advances in basic science. . . must be published so that it can be studied, criticized and extended by other scientists. . . throughout the world." He further charged that certain members of Congress had assumed that secrecy and security measures should be extended because of the Soviet's newfound nuclear capability. DuBridge argued that Soviet possession of nuclear weapons simply meant that the AEC's job was no longer one of retaining every possible atomic secret.; J. Robert Oppenheimer, "A Letter from the Chief of Los Alamos," *New Republic*, June 6, 1949, 8-9.; "The New Attack on Lilienthal," *New Republic*, June 6, 1949, 5.; Address by Lee A. DuBridge at a Press Conference on Atomic Energy Information, November 16, 1949, in David E. Lilienthal Files, Box 1.

Prior to his resignation, Lilienthal had iterated that the atomic bomb detonation in the Soviet Union brought closer “. . .the time when decisions must be made on major issues of civilian defense.” Despite the political misfortune his enemies bestowed on him, Lilienthal encouraged the AEC to become active in civil defense matters. Beginning in 1949, a modest amount of the AEC’s activities began to address civil defense, due in part to the criticism the agency received for not giving citizens enough information regarding nuclear hazards and also because of requests made by the NSRB. By the spring of 1950 the Commission prepared unclassified papers that were relevant to proposed civil defense plans of the NSRB. These papers included information on treatment of persons exposed to radiation, the nature of atomic damage to structures, and on the operation of monitoring instruments.⁷⁸

On June 25, 1950, communists attacked Korea. The following day, NSRB Chairman Symington spoke before an American Red Cross Convention in Detroit. Symington’s topic was civil defense, and he began his speech with the assertion that in such an atomic age there was “[n]o place to hide.” To Symington, as with many Americans at this time, it seemed apparent that communist strategy was changing from subversion to aggression, and because the Soviet Union possessed atomic weapons, an attack on America’s cities appeared likely. Symington stressed the importance for citizens to understand the nature of

⁷⁸ JCAE Hearings, 12. Letter from David Lilienthal to Admiral Sidney Souers, National Security Council, November 4, 1949, AEC Office Files, Folder 15.

atomic warfare and to prepare for it. The AEC's job, Symington announced, would be to assist in the education process.⁷⁹

When the AEC was asked by the Bureau of the Budget to comment on the proposed civil defense bill, in September, 1950, AEC Deputy General Counsel Everett W. Hollis reiterated that the Commission's primary role in civil defense was to supply information. He further commented that even in light of the limited role the AEC was supposed to play in civil defense, the bill did not explicitly define the relative responsibilities between the state and federal governments. According to Hollis, the bill also did not define the specific role that the federal government would play in guiding local activities.⁸⁰

Beginning with the October, 1950 issue, the *BAS* began carrying a regular column entitled "Civil Defense News." In October, 1951, the *BAS* indicated that since President Truman's announcement of a second Soviet bomb, America's monopoly on atomic weapons had never been as complete as anyone thought, and now had entirely vanished. The editors announced that civil defense would continue to be an issue frequently written about because many readers working with CD planning were interested. In addition, they charged that "...the handling of secrecy and loyalty procedures in civil defense" had begun by this time to "take an all-too-familiar pattern. . . ." where civilians were not privy to important information about atomic attack.⁸¹

⁷⁹ Hewlett and Duncan, 487.

⁸⁰ Memorandum from Everett L. Hollis, September 13, 1950, AEC 366/1, Folder 16, U.S. Department of Energy.

⁸¹ "Civil Defense and the Bulletin," *BAS*, (October, 1951) 319.

Indeed, American citizens were becoming increasingly aware of the Cold War and the possibility of an atomic assault on the U.S., but most people still did not know what to do in an actual attack. A Gallup Poll taken in the spring of 1950 revealed that 73 percent of Americans interviewed believed that if the United States were to get into another world war, American cities would be bombed. 58 percent of those asked said they were concerned that they and their families would be in danger from such an attack. When asked what steps they would take in case of atomic attack, the majority said they did not know, and the second largest majority said, "Nothing can be done, sit and wait." Only 2 percent thought they should organize now to meet future danger.⁸²

Whereas David Lilienthal had expressed a great deal of concern about the AEC's role in civil defense, the new Chairman, Gordon Dean, did not espouse as much enthusiasm. Dean commented that in connection with civil defense the AEC had two jobs. One was to see that the AEC's own installations, such as Oak Ridge, were protected and ready for emergencies. The second was to advise the NSRB, by taking the role of "simple suppliers of information." Dean noted that Dr. Shields Warren, who was in charge of the biology and medicine division, was "head civil defense man at AEC." Although acknowledging that the Commission had a responsibility to furnish the NSRB and FCDA with information regarding atomic weapons, Chairman Dean essentially paid lip service to civil defense.

⁸² *The Gallup Poll: 1950*, 916-917.

Although supplying some portion of factual information regarding nuclear energy, the AEC played virtually no role in the formation of the FCDA.⁸³

Manhattan Project veterans' interest in civil defense during the Truman administration was brief, when considering the length and intensity of the Cold War. Civil defense, to most scientists, was implicit that they had failed to reach their initial goals of international control of atomic energy and world government. Civil defense as a method of coping with atomic attack was held in much lower regard than the the first three items on the FAS's agenda. A handful of scientists and, to a lesser degree, the AEC under David Lilienthal, were concerned about civil defense at least until the birth of the FCDA with the passage of Public Law 920. After the FCDA became a working agency, the AEC appeared to become disinterested in civil defense programs. Some scientists maintained an active interest in civil defense but focused almost exclusively on industrial dispersion. The new civil defense agency, they assumed, would logically take responsibility for training civilians and building shelters. The FCDA, however, was unable to fulfill this expectation, found few supporters with the means to make the program a success.

⁸³ Entry in Office Diary of Gordon Dean, AEC Office Files, Box 1, Folder 170, February 17, 1950 & April 14, 16, 1950, Department of Energy.

Chapter Three - Public Law 920 and the FCDA's Initial Efforts

On September 8, 1950, W. Stuart Symington submitted the NSRB's Civil Defense Plan (The *Blue Book*) to President Truman. Ten days later, Truman submitted the plan to Congress for its consideration. At the same time, Truman announced his intention to establish a temporary Civil Defense Administration to provide leadership for state and local civil defense efforts until a permanent civil defense organization could be established. On the same day, federal legislation calling for an independent civil defense organization, as suggested in the *Blue Book*, was introduced in the House of Representatives, and the following day in the Senate. Over the next two months the bill was rewritten and the revised legislation was introduced in the House on November 30 (H.R. 9798) and in the Senate the following day (S. 4219).⁸⁴

⁸⁴ Yoshpe, 144-145.; U.S. Congress. House. Committee on Armed Services, *Full Committee Hearing on H.R. 9798*, December 16, 1950, 81st Cong., 2nd. sess., 13.

By late 1950, Congress was under increasing pressure from city mayors to enact a civil defense program. Because the NSRB was disorganized in its civil defense planning, it could not keep up with the demands being made of it. On September 18, Paul Larsen, under pressure from W. Stuart Symington, resigned as OCD chief. Symington had been shocked by Larsen's statement that no atomic bombs would fall on the U. S. for at least another two years. After replacing Larsen with James Wadsworth, Symington expressed anger that weeks of planning, based on Larsen's optimism, went "into the wastebasket" and that work had to begin again from scratch. Symington warned that "The country is in far greater danger than at any time in its history. . .[i]n the event of enemy attack, we have a good chance of losing unless. . .we have adequate civilian defense."⁸⁵

Congress moved quickly at the end of 1950 to enact the legislation. Chinese intervention in the Korean War in late November increased existing international tensions and quickened the pace of the civil defense hearings. On December 16, Truman declared a national emergency and created the Office of Defense Mobilization (ODM). Congressional hearings on the proposed federal civil defense legislation, which had begun on December 4, were completed in less than a month and the legislation was then quickly approved by both the House and

⁸⁵ Ironically, Larsen had been strongly against a large, national civil defense effort when he held this position even though he was supposed to be, by definition, working towards this goal. Larsen had testified before the JCAE civil defense hearings, arguing that a completely operational civil defense program could lead to a "garrison state."; JCAE Hearings, 2.

Senate. President Truman signed into law on January 12, 1951, the Federal Civil Defense Act of 1950, also known as Public Law 920.⁸⁶

The Federal Civil Defense Administration (FCDA) was established as an executive branch of the government. Truman appointed Millard F. Caldwell, Jr., a former congressman and governor of Florida, to head the new agency. In addition, the President appointed James Wadsworth as Caldwell's deputy. Many of the FCDA's leaders expressed reservations as to how long the agency would survive. Lawmakers and FCDA leaders privately regarded civil defense as a necessary evil and a temporary phenomenon. Even Caldwell believed the new agency would have a short lifespan. As historian Allan Winkler has stated, the FCDA "remained a stepchild in the larger defense effort." In contrast to the AEC, which in the late 1940's had an annual operating budget of \$500 million, the FCDA had to settle for \$150.1 million for the fiscal year 1951-53, with, in Truman's words, "not one thin dime for shelters."⁸⁷

Industrial Dispersion vs. Home Shelters

For the fiscal year 1951-53, Truman had proposed a budget for the FCDA of \$1.5 billion, with half of this going to shelter building. Regardless of the President's claims that protection of the population was his top priority, there was little agreement within Congress over exactly what should be protected. As

⁸⁶ Yoshpe, 146.; Radio and Television Report to the American People on the National Emergency, December 15, 1950, *Public Papers of the Presidents of the United States: Harry S. Truman, 1950-51*, (Washington: GPO, 1965) Item 303, 741.

⁸⁷ Winkler, 16-17.; Boyer, 303-304.; Yoshpe, 164.

former NSRB Office of Civil Defense chief Paul Larsen stated, civil defense was more than protection of "homes on the homefront,"; it also had to do with protecting industrial capacity. Protecting industry, however, was the responsibility of the NSRB, especially after Congress established the FCDA specifically to address civilian needs. On August 10, 1950, President Truman approved the NSRB's National Industrial Dispersion Policy, based on a 1948 NSRB report entitled "National Security Factors in Industrial Location." The report stressed that dense agglomerations of industrial plants were inviting targets for the enemy and that plants separated far from one another would better survive an atomic attack. U. S. industrial capacity, even though tremendous, was situated within a few densely built up centers.⁸⁸

Between 1950 and 1951, scientists considered urban dispersal an important and crucial means of maintaining domestic national security. The September, 1951 issue of the *BAS* was devoted entirely to the topic of dispersal. The *BAS* defined dispersal as defense-through-decentralization. Atomic scientists maintained, according to the *Bulletin*, "that dispersal of large industrial agglomerates will be the most important. . .answer to the threat of atomic aggression." Eugene Rabinowitch asserted that world government and international control of atomic energy still remained the main political objectives of the scientists. Since the likelihood of attaining these goals was slim, however,

⁸⁸ Address by Paul J. Larsen, July 14, 1950, NSRB Central Files, Box 92.; Memo from Harry S. Truman to Heads of Executive Departments and Agencies, August 10, 1951, NSRB Central Files, Box 15.

dispersal sufficed as a measure to make "an atomic super Pearl Harbor" impossible.⁸⁹

Again Ralph Lapp took the lead among scientists, advocating dispersion measures. Although the NSRB had initiated planning for industrial dispersion, the agency was slow to produce tangible results. Lapp sharply criticized the NSRB and Office of Defense Mobilization for their failure to encourage dispersion. He also questioned the private sector for its failure to consider the hazards of atomic attack, asking why both the government and industry maintained a "semi-suicidal pattern of pre-atomic industrial development." Implicitly condemning the development of the H-bomb, Lapp argued that the Super's birth was "premature." He also asserted that the development of the H-bomb dampened the private sector's enthusiasm for dispersion because now the required evacuation distance would be changed drastically from the plans based on the less-destructive A-bomb. In addition, Lapp was critical of what he considered the public's passive acceptance of the Super. He stated, however, that plans for dispersion should not be thwarted by the H-bomb because the DOD and AEC agreed that a ten to twenty mile dispersal distance was adequate.⁹⁰

Previously, the AEC had sent a report to the NSRB, showing the possible effects of an atomic attack on Washington, assuming that the weapon used was equal to the bomb used on Nagasaki. The AEC claimed that an enemy would likely employ an airburst, because this type of detonation would destroy a larger

⁸⁹ Eugene Rabinowitch, "The Only Real Defense," *BAS*, (September, 1951) 242.

⁹⁰ Lapp, "Industrial Dispersion in the United States," *BAS*, (September, 1951) 256-257.

area than a ground or water burst. If a 20 kiloton weapon exploded over Washington, it would destroy all residences within a six to eight mile radius. The AEC deemed the current civil defense protection measures appropriate. "With adequate warning which was heeded and adequate shelters, which were occupied, the casualties could be greatly reduced." In addition, physicians with medical supplies on hand, hospitals, and blood banks would save many of those injured by blast and burns. The AEC saw dispersal as an alternative to the shelter system, and assumed that estimates based on the 20 kiloton bomb could still "be used as a rough basis for discussion and planning."⁹¹

The first U.S. Hydrogen bomb test, BRAVO, was not conducted until March, 1954. Even though civil defense planners, scientists, and most of the American public were aware of the coming of the H-bomb prior to the Pacific tests, most individuals were not overtly concerned about the threat of nuclear fallout until radioactive matter from BRAVO poisoned crew members on the Japanese fishing boat *Lucky Dragon*. Panic quickly spread from Tokyo to the U.S. Up until this time, some public civil defense information emphasized evacuation as well as privately financed shelter construction, taking into consideration that there was little federal money available for shelter construction. Because of increasing varieties of nuclear and thermonuclear weapons, more sophisticated delivery systems, and especially the threat of fallout,

⁹¹ Tyler, 207, 216.

most methods of civil defense proposed before 1954 were quickly rendered obsolete.⁹²

Eugene Rabinowitch maintained that the largest and most obvious problem for those who wanted to implement dispersal plans, instead of shelter construction, was lack of appropriations. Although dispersal was expensive, Rabinowitch commented, its long-term costs would be far less than those of maintaining permanent civilian defense forces in and around major American cities. "Apathy, scepticism, or outright opposition to all radical civil defense measures," he charged, still prevailed both in the public sphere and in Congress.⁹³

The President Criticizes Congress

President Truman, at least in public, regarded civil defense as a crucial component of American national security policy. During the first years of the FCDA's life, the President expressed disappointment in the small budgets the agency received. In the FCDA's first annual report to the President in 1952, Caldwell noted that the growth of the civil defense program was too slow, and that federal appropriations as of June, 1952 were only slightly more than \$108

⁹² The world's first "hydrogen" explosion was the MIKE test in November, 1952. This was not a true Hydrogen bomb in the sense of the BRAVO operation. The bomb used in the MIKE test employed supercooled liquid tritium and deuterium, and was larger than a two-story house. MIKE obliterated the entire Pacific island of Elugelab, over a mile in diameter. The device used in the BRAVO test was a dry bomb, and much smaller, thus deliverable. The Soviet Union, pushing ahead in the race for nuclear superiority, had detonated its first dry H-bomb in August, 1953.; Robert A. Divine, *Blowing on the Wind: The Nuclear Test Band Debate, 1954-1960*, (New York: Oxford University Press, 1978) 6-7, 16-17.

⁹³ Rabinowitch, "The Only Real Defense," 242-243.

million. In turn, the President complained to Congress that ever since Public Law 920 was passed, the civil defense program had been "starved for lack of adequate appropriations," and that the U.S. had only "the skeleton of a good. . .organization." Truman also reminded Congress that despite his request of \$535 million for 1951, lawmakers had only approved \$75 million. The President pointedly suggested that Congress would need to provide \$600 million for civil defense measures during 1952. A "penny-wise-pound-foolish attitude" about the cost of civil defense, he remarked, would be detrimental to the entire American national security program.⁹⁴

Throughout its existence, the FCDA never received adequate funding to carry out any substantial activities, such as wide-scale shelter construction, and the training of large numbers of civil defense personnel. On the other hand, military defenses, such as the construction of new weapons, were allocated large annual budgets. As the 1950's proceeded, the DOD increasingly emphasized the development of the NIKE missile system and massive retaliation as means of protecting the homefront.⁹⁵ The following table⁹⁶ shows budget requests and appropriations (in millions) for nonmilitary (civil) defense measures during the first four years of the FCDA's life.

⁹⁴ FCDA, *Annual Report for 1951*, (Washington, DC: GPO, 1952) vi, xi.; FCDA, *Press Information Bulletin No. 237*, April 25, 1952, NSRB Central Files, Box 92.

⁹⁵ Wigner, 37.

⁹⁶ Source: Donald W. Mitchell, *Civil Defense: Planning for Survival and Recovery*, (Washington, DC: Industrial College of the Armed Forces, 1966) 23.

Table 3. Appropriations requested and received by the FCDA

Fiscal Year	Requested	Appropriated	Percentage
1951	\$403	\$32	8
1952	\$537	\$77	14
1953	\$602	\$44	7
1954	\$153	\$49	32

Despite the FCDA's austere budget, Millard Caldwell expressed hope for the future of the civil defense program. In his first report to the President and Congress, Caldwell asserted that at least the nation's consciousness was growing. The coming year, he hoped, would bring substantial progress to the program, since 1951 had not seen the civil defense measures off to a rigorous start. President Truman, in his 1952 State of the Union Address, emphasized that the U.S. and the entire free world were passing through a period of grave danger. Civil defense, in his opinion, now constituted a fundamental aspect of the national security. The Soviet Union, he insisted, was "producing more war planes than the free nations." The President lamented that during 1951 the U.S. ". . . did not make adequate progress in building up civil defense against atomic attack." He likened inadequate civil defense to an open invitation for a surprise attack, and warned that failure to provide strong civil defense had the same effect as adding to the enemy's supply of atomic bombs. Caldwell even insisted that civil

defense was the foundation of the entire American national security program, because its purpose to was to protect the homefront.⁹⁷

After becoming an operational agency, the FCDA did not receive overwhelming support from other federal organizations. This was ironic because during the FCDA's planning stages, many government agencies had indicated their support for civil defense. After 1951, however, few of these agencies displayed an interest in making the FCDA become a success. Initially, the Civil Defense Administration had the support of the DOD, AEC, Department of Commerce, NSRB, National Security Council, Office of Defense Mobilization, Federal Security Agency, and several other departments. The Defense Department was supposed to determine critical target areas for civil defense planning, and procure millions of dollars of medical equipment for the FCDA. The NSRB's prescribed role was to concentrate primarily on determining industrial target areas, and devising methods of singling out industrial spies and communist informers. The AEC contributed to the FCDA's efforts by declassifying a modest amount of information on atomic weapons' effects, and assisting in educating the public about radiation hazards. The other agencies which were supposed to assist in the civil defense effort contributed nothing of significance. While assuring readers of its literature that the FCDA had the "cooperation" of dozens of other government agencies, it did not in practice. "Cooperation" simply meant that a handful of federal agencies supplied small bits

⁹⁷ FCDA, *Annual Report for 1951*, 5.

of information to the FCDA. Cooperation did not mean aid from other agencies in shelter construction or financial assistance.⁹⁸

Other government agencies required budgetary allocations from Congress; the FCDA represented competition for these funds. In addition, this new agency was looked at by other federal organizations as merely a temporary addition to the government's structure. Civil defense, even in the form of a separate, independent agency, was still primarily viewed as a small extension of the larger military defense effort, and certainly not the basis of American national security. Colonel Beers, representing the DOD, advised the Kefauver Subcommittee on civil defense. His feelings perhaps best summarized the attitude of other agencies towards the FCDA. Beers, a one-time proponent of civil defense, asserted that ". . .the feeling in military circles. . .is that they have got enough to do as it is. . ."⁹⁹

Even those responsible for passage of the Civil Defense Act seemed to abandon interest in the program after 1951. Senator Brien McMahon and some members of the JCAE had strongly advocated the passage of civil defense legislation, but in an interview for the *BAS* in 1952, McMahon retreated from his former enthusiasm. When asked if he and the Joint Committee had any responsibility for pointing out to the country and the FCDA what important protective measures should be taken, McMahon replied that the JCAE simply did not have jurisdiction in civil defense. By the time of this interview (January,

⁹⁸ FCDA, *Annual Report For 1951*, 25-28.

⁹⁹ *Senate Armed Services Subcommittee Hearings*, December 7, 1950, 80.

1952) the AEC had conducted atomic explosions in the Pacific which were not for public observation, thus the results did not reach the majority of Americans. McMahon's only suggestion was that the AEC needed to declassify these records, specifically the Eniwetok results. According to McMahon, the films of the Eniwetok test would have provided an impressive exhibit of the effects that shock and blast had on structures. When asked if the AEC and the JCAE could help civil defense by staging a bomb test which would be more public than those held so far, he stated that it would be impossible to blow apart any particular city.¹⁰⁰

The AEC's *Effects of Atomic Weapons* was intended to show Americans the effects of blast upon shelters in Hiroshima and Nagasaki, but did little to significantly and correctly educate the general public. In the *BAS* interview McMahon stated that further shelter testing was not necessary because the Hiroshima and Nagasaki pictures had been shown "all over the country." The *Bulletin* noted that Japanese architecture differed greatly from American and consequently "those. . . wooden buildings. . . all went up in fire," under atomic attack. Overall, it is apparent that as of 1952, a significant number of Americans were uninformed about the actual destructive potential of atomic weapons. Many Americans believed that Japanese structures were "inferior" to western buildings, therefore the mass destruction as shown in *Effects of Atomic Weapons* would not happen here. Since *Effects of Atomic Weapons* did not make much of an impression, McMahon again insisted that the only possible answer to

¹⁰⁰ *BAS*, "An Interview With Senator McMahon," 12.

educating the public about blast and shelters was to declassify the Eniwetok records.¹⁰¹

The FCDA's lack of support by lawmakers and other agencies was strongly rooted in Public Law 920's legislative history. Even before the FCDA began to operate, Congress had passed legislation to prevent "boondoggling" proposals (for federal funding of local civil defense projects) in the civil defense plan. This move on the part of Congress almost inevitably guaranteed that civil defense programs would never receive adequate yearly appropriations. The civil defense program's provisions were strikingly modest when the bill was finally signed into law. Congressional deliberation on Public Law 920 proceeded smoothly and quickly, but apprehension regarding the measure was obvious. The Civil Defense Act was not overwhelmingly supported in Congress, even though it passed the House by a 247 to 1 vote. The strong pressure exerted by civic leaders, however, seemed to have left the legislators little choice but to pass the legislation. Most legislators believed they were appeasing the nation's civic leaders. Representative Dewey Short, a Republican member of the House Armed Services Committee, remarked, "I do not like castor oil but sometimes I am forced to take it."¹⁰²

The biggest debacle in Congress occurred over the proposed shelter program, which later became an embarrassment for the FCDA. In 1951 and 1952, FCDA officials repeatedly attempted to gain congressional support for the shelter program, but Congress completely denied funds for shelters. Participants in the

¹⁰¹ *Effects of Atomic Weapons*, 150.; *BAS*, "An Interview with Senator McMahon," 12.

¹⁰² Yoshpe, 162.; *New York Times*, December 28, 1950, 1:20.; Kerr, 45.

civil defense hearings expressed hesitancy regarding shelters. Senator McMahon expressed his feelings about the shelter program when he stated that "any effective digging in. . .is just out of the question. You can't put America underground. And furthermore, we are not going underground. . ." because to do so would ". . .make moles of ourselves." In addition, a shelter program would prove to be phenomenally expensive, and no one could be certain if it would work. As a result, by the time Public Law 920 was completed, its provisions regarding shelters were economically self-restricting. The legislation stated that shelters were to be part of the civil defense program, but no federal funds could be spent to purchase land for shelters other than for the purpose of civil defense. Any funds contributed by the federal government also had to be matched by state or local governments -- a feat not easily managed.¹⁰³

The majority of congressional leaders apparently did not take seriously the FCDA's requests for shelter appropriations because of the ambiguities laced within the fabric of Public Law 920's provisions. In addition, the AEC continued to delay declassification of information regarding effects of atomic blast and heat on structures. Not only did the public remain in the dark, but the lack of information kept lawmakers from seeing a real need for civil defense. Brien McMahon expressed strong dissatisfaction with the AEC for failing to provide information to the NSRB so that it might have been more specific in making shelter specifications. None of the civil defense documents published prior to the passage of the civil defense act provided specific shelter recommendations. Even

¹⁰³ JCAE Hearings, 138.; Kerr, 38, 46.

the *Blue Book* only vaguely suggested the implementation of a shelter program, and acknowledged that it would constitute a costly undertaking. At the time of the *Blue Book's* publication, the NSRB was still not obtaining the data it needed on nuclear weapons from the AEC and Defense Department. Paul Larsen, when still Director of the NSRB's Office of Civilian Defense Mobilization, likely had access to a large amount of information. His staff, however, did not. Larsen had previously served as an assistant director of the Los Alamos National Laboratory, and until the summer of 1950, had insisted that the civil defense effort was of no immediate concern.¹⁰⁴

In considering the overall federal commitment to states and municipalities, perhaps Senator Leverett Saltonstall, former governor of Massachusetts, voiced the overall attitude of Congress when he asserted that it would be important to keep the responsibility at the local level, and to make clear that localities were "primarily responsible for the safety of their own civilians." Agreeing with Saltonstall, Senator Kefauver noted that the "desire of the Federal Government is to coordinate and direct," and to leave responsibility for carrying out the program with the States and municipalities "without us getting into everybody's hair and in everybody's way."¹⁰⁵

¹⁰⁴ Kerr, 41, 42, 39.; *Blue Book*, 258, 35.

¹⁰⁵ U.S. Congress, *Senate Armed Services Subcommittee Hearings*, December 7, 1950, 177, 197.

The FCDA's Public Information Campaign

One of the FCDA's few accomplishments before 1953 was its public information campaign. In this campaign, the agency attempted to combat public apathy which so concerned Administrator Caldwell and Deputy Administrator Wadsworth.¹⁰⁶ In fact, Wadsworth spent much of his time speaking to public groups about the dangers of apathy. The FCDA's leaders believed that most U.S. citizens would rather flee from an atomic attack than remain in the target areas and perform civil defense work. Arguing that the Americans suffered from too much "take to the hills mentality," Wadsworth warned that "there can be no mass evacuation of our great cities in case of enemy attack." Wadsworth feared that most American city dwellers "visualized any attack here by an enemy as the signal for a sort of group vacation," where they could flee the city. "If and when the chips go down," he continued, "every strategic target area in America will be manned and fought with every bit of human vigor." Wadsworth's insistence that Americans remain in target areas during an atomic attack was a consideration made before the invention of the H-bomb and its threat of widespread fallout. The A-bomb did not contain this implicit threat, hence civil defense planning thus far did not take fallout into account.¹⁰⁷

¹⁰⁶ Historian Allan Winkler has labeled the FCDA's public information campaign a method of "cajoling the American public.;" Winkler, 17-18.

¹⁰⁷ "Survival Under Atomic Attack" was a film made for civil defense authorities by United World Films. Commentated by Edward R. Murrow, it circulated around the country giving audiences a ten minute narrative explaining the dangers from heat, blast, and radiation. Because the film was funded entirely by private money, Wadsworth remarked that the film was produced at no cost to the Government and reflected the "very genuine desire of the film producers to serve their country in the organization of adequate civil defense.;" *The Civil Defense Alert*, (1, No. 2) May, 1951, 5.; News Release from NSRB,

Whether or not public apathy was a “real” problem remains unclear; only a few public polls taken regarding citizens’ concerns for civil defense indicate a lack of interest. It is likely that FCDA officials may have simply assumed the existence of public apathy since the federal government provided minimal funding for state and local civil defense efforts. Coaxing Americans to take individual and community initiatives towards shelter construction and home protection was the only venture on which the FCDA could reasonably embark with any hope of at least moderate success, given the agency’s lack of appropriations. FCDA criticism of the public’s lack of interest in civil defense measures was, for the most part, a rhetorical means of motivating citizens to action.

Between 1951 and 1954 the FCDA released several films and many pamphlets aimed at informing the public about how to cope with an atomic attack. Films were particularly important because they tended to reach the public more often than did pamphlets. With titles like “Target You” (no date), and “Let’s Face It” (no date), the films were obviously intended to shock the public into doing something about civil defense. One of the most historically well known of these films, seen by millions of school children, was “Duck and Cover” (1951), featuring “Bert the Turtle.” Bert instructed children that in the event of nuclear attack they must take cover. Set to cheerful music, the film stressed the need to be prepared at all times, so that even though the atomic bomb was “very

November 30, 1950, NSRB Central Files, Box 92.; FCDA, *The Civil Defense Alert*, (1, No. 2) May, 1951, 5.

dangerous" schoolchildren would be ready for it. Not mentioned to the young audiences was the threat from fallout.¹⁰⁸

One of the most well-known FCDA pamphlets, *Bert the Turtle Says Duck and Cover* (1951), was distributed widely in schools. In three million of these pamphlets Bert told children that the atomic bomb was "a new danger," and that they "must be ready to protect [themselves from] things flying through the air. . .and cover to keep from getting cut or even badly burned." Because, as historian JoAnne Brown has noted, existing educational institutions were a logical place to start getting the civil defense information campaign off the ground, many other FCDA sponsored educational programs were implemented in schools. Indeed, materials intended for use in schools constituted a large portion of the FCDA's publications, indirectly providing a channel for the education of parents as well as children.¹⁰⁹

In its first years, however, the FCDA also published millions of pamphlets aimed directly at adults. Some of these pamphlets targeted various occupational groups such as firefighters and police, while others prescribed the specific roles that women should play by stating that "Civil defense begins at home."¹¹⁰

¹⁰⁸ FCDA, "Target You," 9.5 min., 16 mm., No Date, No. 304.004, National Archives.; OCD Agency, "Let's Face It," 16 mm., No Date, No. 304.008, National Archives.; Winkler, 18; FCDA, "Duck and Cover," 10 min., (Produced by Archer Films, 1951).

¹⁰⁹ JoAnne Brown, "A is for Atom, B is for Bomb: Civil Defense in American Public Education, 1948-1963," *The Journal of American History*, (75, No. 1) June 1988, 70, 84-85.; Interestingly, Brown concludes that *Duck and Cover* typified the way that educators and FCDA officials presented civil defense to children. Instruction and air raid drills were purged of frightening elements (such as the danger from fallout) and were implemented with "perverse cheeriness."

¹¹⁰ The FCDA's 1951 annual report noted that "the importance of women in civil defense could "scarcely be overstated." In keeping with women's prescribed roles in middle-class America, the report noted that there were "many jobs in civil defense which can best be handled by women." Many target areas were residential, and in the event of an attack during daylight hours, had to be defended primarily by women because the men would be away at work.; FCDA, *Annual Report for 1951*, *The Blue Book*. made similar generalizations regarding the role women should play in civil defense, noting that they might play "an

Another publication, *The Civil Defense Alert*, was intended to bring civil defense news to state and regional offices. Articles in it often rang with both criticism of public apathy and anti-communist jargon.¹¹¹

Two other initiatives of the FCDA were a television series, "Survival," shown on NBC in 1951, which reached an estimated 12 million people, and the "Alert America" program, which began in Washington in January, 1952. Under this program, three convoys of ten 32-foot trailers carried portable exhibits to cities throughout the U.S. Three-dimensional exhibits illustrated peacetime and wartime uses of atomic energy, types of biological and chemical warfare, methods of sabotage. A secondary purpose of the "Alert America" campaign was to recruit volunteers to join their community civil defense organization.

Approximately 70 American cities were visited, and over 500,000 people attended the exhibits.¹¹²

In April and May of 1951, the FCDA held a "Staff College" in Maryland, for U.S., British, and Canadian officials, and local civil defense directors. Along with presentations on atomic hazards and different types of civil defense measures, the participants were shown a dramatic presentation entitled, "The Attack on City X." Educational administrators also discussed ways of identifying

important role in the warden service." "Experience," the *Blue Book* concluded, ". . . proved that women are particularly qualified for this type of work and are generally present in residential neighborhoods at all hours."; *Blue Book*, 44.

¹¹¹ The *Alert*, notably, was indicative of the financial limits under which the FCDA had to operate. Printing of the *Alert* by June, 1951, was limited to 75,000 copies per month. By August, 1952, the last issue was published because of the reductions in the FCDA 1953 budget, which had forced curtailment and elimination of many of the agency's programs.; FCDA, *Women in Civil Defense*, (Washington, DC: GPO, 1952) 3.; FCDA, *The Civil Defense Alert*, (1, No. 1) April, 1951, 2.; (1, No. 3) June, 1951, 3.; (2, No. 2) August, 1952, 1.

¹¹² *The Civil Defense Alert*, (1 No. 8) January 1952, 1-2., (1, No. 2) June, 1952, 2.

schoolchildren in high-risk target areas. Tattooing was initially discussed as a means of identification but was rejected because of its "associations and impermanence in the case of severe burns." Educators finally settled on metal identification tags, and New York City quickly appropriated \$159,000 to provide for tags for all city school children in a test program.¹¹³

The civil defense publications and campaigns served a secondary purpose, which was to educate the public about communists, traitors, and spies. Some civil defense literature was blatantly anti-communist in its tone, although the FCDA never admitted this. In many publications and films, the public was warned that the Soviet Union was far ahead of the U. S. in its civil defense programs. In the FCDA's annual report for 1951, Russia was described as ". . . well along in developing civil defense." The Kremlin, it also stated, had ordered that "[N]ot even a single collective farm, state farm, or machine tractor station would remain without a civil defense group." The report further warned that civil defense in the U.S.S.R. had been rapidly expanding since 1935 when 2.5 million citizens took part in civil defense measures. As an example of how far the U.S. lagged behind the Soviets, the report noted that since 1947 the Soviet Union had trained 22 million civil defense workers. Communists, it seemed, were ready to defend their institutions, while Americans were not.¹¹⁴

At a 1951 American National Red Cross Convention, Caldwell also warned that the Soviets were much farther ahead of the U. S. in building civil defense

¹¹³ *The Civil Defense Alert*, (1 No. 2) May, 1951.; Boyer 327.

¹¹⁴ FCDA, *Annual Report for 1951*, 80.

facilities, noting that in 1947 the Soviet Union had over 40 million civil defense workers. Although acknowledging that the Soviets were “given to juggling their statistics,” he nevertheless contrasted the large number of Russian civil defense workers with the mere 1 million Americans who had volunteered for civil defense duty.¹¹⁵

It seems appropriate that while civil defense literature was laced with anti-communist messages, civil defense advocates were stressing patriotism and pro-Americanism. Martin Buckner of the American Legion drew strong parallels between civil defense and patriotism when he addressed the first annual civil defense conference in May, 1951. The crux of the whole civil defense problem, Buckner claimed, was not public apathy but anti-Americanism. The American people, he believed, were ready to be led and were hungry for information regarding defense of their homes. The key to an effective civil defense program, according to Buckner, was getting “back to basic American principles of living Americanism,” in order to “take care of ourselves.”¹¹⁶

In emphasizing patriotism, civil defense literature was consistent with the growing “Cold War mentality” of the 1950’s. In general, the message implicit in many FCDA publications was that the Russians were different from Americans, and their mere possession of atomic bombs meant the likelihood of attack on the U. S. This theme was aimed at organizations and industry as well as families and schoolchildren. In the booklet *Civil Defense and National Organizations* (no

¹¹⁵ FCDA, *The Civil Defense Alert*, (1, No. 5) September 1951, 2.

¹¹⁶ FCDA, *National Civil Defense Conference Report*, (Washington, DC: GPO, 1951) 32.

date), community businesses, social organizations, and industry were encouraged to support national security through participation in civil defense activities. This booklet contained a distinctive cartoon of an ostrich sticking its head in the sand, implying that Americans were oblivious both to the dangers of communism, and to the threat of nuclear attack.¹¹⁷

The FCDA warned industrial leaders of the growing communist threat and explicitly described the ways civil defense measures could prevent sabotage and subversion. Just as an enemy attack on the nation must be thoroughly planned, so must subversive action such as industrial sabotage. The FCDA suggested that industry must be ready for espionage and subversion, therefore strict standards for hiring and identifying employees must be established. Industrial leaders were warned that communists were often clever because they were able to pose as the least suspected types of people.¹¹⁸

Just as Caldwell had scolded the American public's apathy, Wadsworth criticized U. S. industry for its failure to take on civil defense responsibilities. In addressing the National Industrial Conference Board, he argued that the warnings of atomic attack on industry were going largely unheeded. He was "... appalled by management's failure to recognize that industrial civil defense is a top priority matter and that civil defense is the basic protection program for America's production line -- both for its people and its plants." Wadsworth also

¹¹⁷ FCDA, *Civil Defense and National Organizations*, (Washington, DC: GPO, No Date) 1-5.; It is interesting to note that this booklet implied that Americans needed to be aware of "un-American" activities which their colleagues or neighbors might be participants in.

¹¹⁸ *Industrial Sabotage and Preventative Measures*, 1, 3-4, 6, NSRB Central Files, Box 15.; FCDA, *Annual Report for 1951*, 63-64.

charged that it was the responsibility of all American industrialists to begin an all-out program for civil defense.¹¹⁹

As it did with the state and local governments, the FCDA vigorously encouraged private businesses and industry to take their own initiatives towards civil defense. Despite the FCDA's public awareness campaigns, publications, and media messages, civil defense did not gain the amount of public support that it needed to be an effective part of most American's lives. As a method of national security civil defense consistently ranked a far second in both the public and federal eyes, always behind the larger military defense effort. Although Secretary of Defense Robert A. Lovett declared, in October, 1951, that civil defense should be a coequal partner with the military in matters concerning national defense, the FCDA never received adequate appropriations or acceptance within the federal bureaucracy. Even after the passage of Public Law 920, instructions relayed to the state and local levels, and consequently, to the American public, were often rhetorical and contained minimal useful information.¹²⁰

Civil Defense with an Uncertain Future

From its planning stages, the future of civil defense under the Truman administration was in doubt. The legislative history of Public Law 920 indicates

¹¹⁹ *The Civil Defense Alert*, (1 No. 11) May, 1952, 3.

¹²⁰ *The Civil Defense Alert*, (1 No. 7) November-December 1951, 7.

that Congress was not enthusiastic about the Civil Defense Act, with only a few congressmen strongly advocating its passage. Apparently civil defense was viewed by many congressional leaders as a "necessary evil," or possibly a temporary solution to demands by mayors and municipal leaders for the federal government to "do something." Much of the material failure of the Civil Defense Administration was grounded in the uncertainties about how effective the program would be. Representative Dewey Short acknowledged the overall uncertainty regarding civil defense when he said "We have no yardstick; we have no standard; we have very little experience ourselves to go by. We are entering a vast unknown and unexplored field."¹²¹

¹²¹ Yoshpe, 163.; U. S., *Congressional Record*, 81st Cong., 2nd sess., 1950, XCVI, Part 12, p. 16830.

Conclusion - Civil Defense as Secondary in National Security

Civil defense under the Truman administration was shrouded in doubt and uncertainty. The debates over civil defense in the late 1940's and early 1950's were intrinsically tied to the invention of the atomic bomb. The growth of and rapid changes in nuclear weapons during the mid-twentieth century always remained ahead of civil defense measures; planners were unable to keep up with the advancing technology. The techniques of and professionalization (or, creation of a federal agency) of civil defense under Truman were, respectively, different than those of World War II and had no adequate precedent to follow. The NSRB and later, the FCDA, based large portions of their plans on the American and British Second World War experiences, which did not take into account the threat of atomic weapons. The FCDA tried its best to recommend shelter construction plans, given financial limitations, that took into consideration the possibility of a Soviet atomic attack. After the approval to go ahead with the

Super, however, much of the FCDA's plans were rendered obsolete and the agency had little idea of how prepare for an H-bomb attack. Domestic shelters and evacuation plans originally designed to withstand attack from nuclear kilotons were no good in the event of attack from multimegaton bombs.¹²²

Plans for urban dispersal had a similar fate. President Truman, in response to pressure, announced a National Industrial Dispersion Policy, which met with limited success in some new industrial and defense plants located in less congested areas. Plans for dispersal of federal government buildings failed almost entirely. Again, like the home shelter policy, development of the H-bomb negated the effectiveness of A-bomb based considerations.¹²³

Civil defense had a tremendous turnover in leadership throughout Harry Truman's presidency. The lack of faith in and dedication to civil defense measures was evident not only in the FCDA's administrative structure but in the program's meager embracement by the public. Civil defense did not receive enough public enthusiasm in the early 1950's to assure its success. Although civil defense under Truman was unsuccessful in a material sense, the FCDA unknowingly found accomplishment in its public information program. This was a success in the sense that most Americans had at least heard of civil defense by

¹²² Kerr, Dissertation, 62.

¹²³ Memo from Harry S. Truman to Heads of Executive Departments and Agencies, August 10, 1951, NSRB Central Files, Box 15.; From 1951 to 1953 FCDA Officials were only concerned with the "nominal" bomb, which had to be detonated at a reasonably high altitude to have maximum effectiveness. (The Hiroshima bomb was exploded at about 2000 feet above the city). At such a height the amount of material drawn upward and radioactivated confined fallout mostly to areas already destroyed by blast and heat. Therefore, fallout was not considered by civil defense officials until the H-bomb tests demonstrated that fallout would be spread over much larger areas. Consequently, under the Eisenhower administration, many officials thought there truly was "No place to hide." Digging deep shelters seemed far too expensive, so the orientation, as Allan Winkler has stated, changed "from 'Duck and Cover,' to 'Run Like Hell.'"; Kerr, Dissertation, 72.; Winkler, 18.

the end of the Truman era. Under the Eisenhower administration, when public fear of fallout from multimegaton bombs reached panic proportions, civil defense programs gained new life, especially in the area of bomb shelter construction. The FCDA's public information strategies during the Truman years at least raised Americans' consciousness to civil defense. Thus, the public was in a prime ideological position to embrace civil defense during Eisenhower's presidency. In a broader context, the FCDA's rhetorical information campaign contributed to the growing "Cold War" mentality and paranoia during the Eisenhower years.

Leadership in civil defense constituted another problem faced by the FCDA. The civil defense effort was exceedingly unorganized. Some of the FCDA's difficulties can be traced back to the NSRB's negligence in civil defense planning, and the limits imposed on the agency by bureaucratic boundaries. Rather than forming an overall policy, the NSRB planners emphasized technical details. In addition, the FCDA tried to make the program appear acceptable to Congress and the public, instead of adapting civil defense to meet the demands of larger and more powerful weapons. Apparently, scientists were looked to for leadership concerning protection from atomic weapons. Because the government lacked leadership capability in civil defense matters, and the AEC limited the amount of available information, the public trusted the scientists who knew the most about the hazards of atomic energy, and who ideally were supposed to be objective and above the realm of ordinary politics.

As with many politicians, scientists who had advocated civil defense before 1950 lost interest in the program after the development of the H-bomb. Although

Ralph Lapp, Eugene Rabinowitch, and others maintained at least some degree of concern for civil defense throughout the Truman years, most of the scientists saw it as implicit acceptance of the permanence of atomic bombs. It is apparent that those scientists who embraced civil defense measures only did so when it seemed there were no other alternatives. Dispersal of cities and industry were the scientists' primary civil defense interests. On the other hand, most scientists seemed to regard private bomb shelters and the widescale training of civil defense personnel as futile. Significantly, even Manhattan Project veteran Edward Teller, the "father" of the H-bomb, had at least once strongly argued for dispersal. Notably, however, Eugene Rabinowitch always maintained that emphasis should be placed on "prevention rather than relief."¹²⁴

The FCDA was conceived and born in a muddle of skepticism and poor planning, and was annually neglected by Congress when it came to budget appropriations. Although Paul Larsen had told the House and Senate Armed Services Committees (in closed session) that a large program would "never be necessary" because state and local governments would take care of themselves -- they never did. Because an all-out civil defense program would be so expensive, the FCDA ended up putting operational responsibility upon state and local governments, who had even fewer resources than the federal government. Congress also refused to allot money for shelters because the civil defense program was "predicated" on enlisting millions of volunteers -- an impractical assumption during peacetime. As the Cold War gained momentum during the

¹²⁴ Bernstein, 12-13, 16.; Marshak, Teller, and Klein, "Dispersal of Cities and Industries," passim.; Rabinowitch, "The Only Real Defense," 242.

Truman administration, military national security endeavors were emphasized. The FCDA did not see any results of its initial propagandistic efforts until the mid-1950's, and even so, its leaders were probably oblivious to the agency's success in raising Americans' consciousness regarding civil defense. Although FCDA leaders Caldwell and Wadsworth continued throughout their short careers to actively promote civil defense, the program remained, during the Truman years, an impractical and unrealistic venture.¹²⁵

¹²⁵ Kerr, Dissertation, 51.; Tyler, iv.

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- Glenn T. Seaborg, interview by author. November 8, 1991.

Appendix A. List of Abbreviations

AEC -- Atomic Energy Commission

DOD -- Department of Defense

FAS -- Federation of American Scientists

FCDA -- Federal Civil Defense Administration

GAC -- General Advisory Committee (To the AEC)

JCAE -- Joint Committee on Atomic Energy

NSC -- National Security Council

NSRB -- National Security Resources Board

OCD -- Office of Civil Defense (Under President Roosevelt)

OCDP -- Office of Civil Defense Planning (within the NSRB)

OCDM -- Office of Civil Defense and Mobilization (Successor to FCDA)

OSRD -- Office of Scientific Research and Development

UNAEC -- United Nations Atomic Energy Commission

Vita

Anne Claire Bridget Fitzpatrick was born in Utica, New York, on September 5, 1968. She graduated from Virginia Tech in December, 1989, with a B.A. in History and a minor in Political Science. Miss Fitzpatrick completed her M.A. in History in the spring of 1992.

A handwritten signature in cursive script that reads "Anne C. Fitzpatrick". The signature is written in dark ink and is centered on the page.