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Department of North American Studies

Dissertation Thesis

2021 **Jiří Pondělíček**

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From Planning the Unimaginable to Imagining the Impossible: the Evolution of Civil Defense in the United States, 1945-1957

Dissertation Thesis

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Author: **Jiří Pondělíček**
Supervisor: **Doc. Vít Smetana, PhD**
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Abstract

The dissertation focuses on the topic of preparations for a possible conflict with the USSR in the US between 1945 and 1957. Many books and articles have been written about the cultural aspects of civil defense programs, which were the most publicly known ways of framing the nuclear war, but they almost completely omit how civil defense activities related to other war planning (i.e. military and mobilization planning). Based mostly on a wide range of primary sources, the dissertation details how the assumptions about the nature of the armed struggle between nuclear superpowers affected the plans and the way they were communicated to the public. It uses evolutionary theory approach to military history to analyze the development of the civil defense doctrine within the context of military planning. It argues that it was seen as essential for enabling the US to continue to wage war having been attacked first by nuclear bombs and that this perception changed only gradually between 1953 and 1957. Analyzing it, as most authors writing on the subject do, as mostly a morale building exercise with little to no purpose outside the realm of psychology leads to misrepresentation of the effort. The dissertation acknowledges that the premises on which the program was built were made obsolete by new weapons development before any meaningful progress on said programs had been achieved, thus making the program effectively useless. However, it concludes that assuming it was seen as such by its planners at the time they planned it leads to a distorted understanding of how the program fit into the military strategy and diplomacy of the US and the overall post WWII militarization of the American public life.

Abstrakt

Tato disertační práce se soustředí na téma příprav USA na možný konflikt se SSSR mezi lety 1945 a 1957. Na téma civilní ochrany, která byla součástí těchto příprav, byla napsaná řada knih a článků, které na něj ale nahlíží z hlediska dějin kulturních a nedostatečně popisuje to, jakým způsobem civilní ochrana zapadala do celkového vojenského plánování. Na základě rozsáhlého studia pramenů práce sleduje, jak měnící se předpoklady o povaze konfliktu mezi oběma supervelmocemi ovlivnily podobu programu i způsob, jakým byl představován veřejnosti. Analyzuje civilní ochranu s využitím evoluční teorie aplikované na vojenskou historii, aby ji bylo možné zasadit do kontextu obecnějších vojenských plánů. Práce dovozuje, že z počátku byla považována za nezbytnou součást příprav na válku a měla pomoci zaručit, že Spojené státy budou schopné mobilizovat pro dlouhý konvenční konflikt, který měl po prvních atomových úderech následovat. Toto přesvědčení se začalo měnit až po roce 1953. Interpretace civilní ochrany jako programu s především psychologickými cíli, která je u autorů a autorek o tématu píšících tak častá, tak vede k mylným závěrům. Tato práce uznává, že díky vývoji atomových zbraní předpoklady, na kterých civilní ochrana stála, zastaraly ještě před tím, než stačil být program reálně uveden do praxe. Zároveň ale dochází k závěru, že tvrzení, že byla od začátku vnímána jako nesmyslná a to i lidmi, kteří ji plánovali, znemožňuje pochopení její opravdové role ve vojenském plánování té doby.

Keywords

Cold War, United States, Soviet Union, Atomic Weapons, Civil Defense

Klíčová slova

studená válka, Spojené státy, Sovětský svza, atomové zbraně, civilní ochrana

Length of the work: 344 267 characters

Declaration

1. I hereby declare that I have compiled this thesis using the listed literature and resources only.
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3. I fully agree to my work being used for study and scientific purposes.

In Prague on
16.6.2021

Jiří Pondělíček

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Introduction

Protecting the citizens is one of the most important duties of every government. During the Second World War, the United States was the only major combatant to suffer virtually no civilian casualties caused by enemy actions. While the total war nature of the conflict, coupled with the destructive potential of strategic bombing, brought death and ruin to the populations of the USSR, Germany, Japan, Britain, France, and Italy[1], the geographical isolation and technological limitations provided adequate protection to the people in the United States. However, the new atomic age, which dawned in Hiroshima and Nagasaki in August 1945, promised to change this position of relative safety.

The power of the bomb to kill and destroy together with increasing capabilities of long-range bombers altered the calculations of the military planners as well as the assumptions of the people about what the future war would look like. In time, substantial civil defense planning and campaigns were put in place as a reaction to this new threat. Therefore, it is surprising how comparatively little attention civil defense received from historians and scholars. This important part of the story of the America´s Cold War became either a caricature or a footnote and only few authors have actually attempted a serious inquiry.

The historical research on nuclear weapons mostly focuses on their role in the overall US post war strategy, their importance for the containment policy of the Truman administration and, in the later period, their adaptation for tactical use on the battlefield. The effect the threat of their use against the United States had on the American planners and population is rather neglected. This dissertation focuses on the story of the civil defense planning in the broader context, i.e. how the government intended to protect the civilian population when the traditional safeguard of geographical position had been rendered all but useless, and how the American people reacted to both the threat and their government´s efforts at protecting them.

[1] on strategic bombing in Europe see Richard J. Overy, *The Bombers and the Bombed: Allied Air War over Europe, 1940-1945* (New York: Penguin Books, 2015), Richard J. Overy, *The Bombing War: Europe 1939-1945* (London: Allen Lane, 2013) and Claudia Baldoli, Andrew Knapp and Richard Overy, eds. *Bombing, States and Peoples in Western Europe, 1940-1945* (New York: Continuum, 2011)

State of the Art

The literature on civil defense can be broadly divided into two categories. The first one focuses on the cultural and psychological impact of the civil defense campaigns and drills. The second investigates the planning phase and the institutions which were responsible for it. Arguably, the most influential authors whose work belong to the former category are Guy Oakes and Andrew Grossman. Both dedicated one monograph and several individually authored and co-authored articles to the topic.

In his seminal book *Imaginary War: Civil Defense and American Cold War Culture,* Oakes identified two versions of civil defense programs: "one official, public and optimistic; the other unofficial, clandestine, and cynical. The optimistic interpretation held that Americans could actually manage their own survival. The purpose of civil defense was to provide them with the information and training necessary for nuclear crisis management. The cynical interpretation held that although state could not protect the American people in a nuclear attack and they could not be expected to protect themselves, they could at least be persuaded to believe that self-protection was possible."[2]

However, Oakes himself contends that his book was not meant as an exhaustive study of the history of civil defense, but rather an analysis of the relationship of national security and civil defense to civic ethics in the early years of the Cold War. He also acknowledges that the book basically develops a single extended argument.[3] The whole text, thus, depends on the presupposition of the duality of civil defense. Grossman makes a similar point in his monograph *Neither Dead Nor Red: Civilian Defense and American Political Development During the Early Cold War*. He writes that "civilian defense as home-front mobilization also gave the illusion that the government could *do* something if atomic war came and that individuals could protect themselves and their loved ones if the worst happened."[4] His analysis supposes that civil defense was a political necessity to placate the most important part of the electorate, the growing suburban population.

This argument is logical in the light of the conclusions of their older collaborative paper "Managing Nuclear Terror: The Genesis of American Civil Defense

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[2] Guy Oakes, *Imaginary War: Civil Defense and American Cold War Culture* (Oxford University Press: New York, 1994), 6-7.
[3] Ibid.
[4] Andrew Grossman, *Neither Dear Nor Red: Civil Defense and American Political Developmetn During the Early Cold War* (New York: Routledge, 2001),31.

Strategy" in which they assume that the civil defense planners´ "main concern was how to construct a domestic political consensus in support of the grand strategy for national security, and above all its chief component, the theory of nuclear deterrence. The decisive question for civil defense strategist was the problem of nuclear terror, which appeared to rule out such a consensus."[5] The purpose of the program as seen by Grossman and Oakes was psychological, political, and propagandist. They ascribed little or no value in terms of physical protection to it, and more importantly, they conclude that the planners knew it.

Historian Laura McEnaney wrote another influential book addressing primarily cultural and political history of the civil defense. She makes a much more refined evaluation of the program stating that "as a domestic security program, it was many things at once: a national security agency, a military theory about survivability in a nuclear war, and a propaganda effort."[6] She focused on how the civil defense militarized certain aspects of American society mostly but not limited to the family and household. While she did acknowledge there was a genuine belief among many in the government civil defense could work, her work does not focus on how this belief was supported and she also made the claim that it rested on outdated bomb data.[7]

Other important authors include an anthropologist Joseph Masco whose paper from 2008 named "'Survival Is Your Business': Engineering Ruins and Affect in Nuclear America" also dismisses the practicability of civil defense. It reads: "The intent of these public spectacles – nuclear detonations, city evacuations, and duck and cover drills – was not defense in the classic sense of avoiding violence or destruction but rather a psychological reprogramming of the U. S. public for life in a nuclear age."[8]

Thus the authors focusing on the cultural impact of the civil defense program and campaign basically either assume the program was never meant to provide any kind of real protection in case of an attack, or avoid the question of how it was supposed to work and why the officials believed it would altogether. However, the idea that civil defense was a deliberate exercise in futility is not exclusive to the cultural history. Historian Dee Garrison´s book *Bracing for Armageddon: Why Civil Defense Never*

[5] Grossman, Oakes. "Managing Nuclear Terror", 364.
[6] McEnany, *Civil Defense Begins at Home* (Princeton: Princeton University Press, 2000), 5.
[7] McEnany, 29.
[8] Joseph Masco. “"Survival Is Your Business": Engineering Ruins and Affect in Nuclear America”. *Cultural Anthropology* 23 (2). [Wiley, American Anthropological Association]: 363. http://www.jstor.org/stable/20484507.

Worked claims that the civil defense planning was "most often based on data that ignored the real effects of nuclear blast and fallout, [...]."[9] While her book explains in detail why the civil defense never gained acceptance and funding, it focuses predominantly on the hydrogen bomb era.

There are two problems with that argument. Firstly, as we shall see in the first part, most of the civil defense planning in the early stage before 1949 was based on atomic bombs. Secondly, even when hydrogen bombs were tested, their actual deployment would still take time. Military planning had not started assuming a nuclear war would end with the initial atomic exchange prior to mid 1950s. Survival was deemed a prudent expectation for planning both defensive and offensive actions in a nuclear war before that.

Two studies focusing primarily on institutional history of the civil defense, *Our Missing Shield: The U.S. Civil Defense Program in Historical Perspective* by Harry Yoshpe and *Civil Defense in the U.S.: Bandaid for a Holocaust* by Thomas J. Kerr, were written in 1981 and 1983 respectively.[10] Therefore, they cannot reflect the recently declassified primary sources about both civil defense and the US military strategy. Furthermore, they analyze civil defense programs from a much more extended period of time from their conception to the time of writing.

Recently, historian Edward Geist has tried to analyze the civil defense program in the context of the overall military planning.[11] His book, however valuable, describes the whole Cold War period and compares both the United States and the Soviet civil defense programs and policies. Moreover, his book endeavors to answer the question why more robust civil defense measures were not put in place in either US or USSR. Using comparative perspective, it investigates different challenges such programs had to face in a democratic and free society and the state controlled one.

This dissertation provides a more detailed analysis of the crucial and formative years between 1945 and 1957. More importantly, it focuses on the interconnected nature of the civil defense and overall military planning. While cultural historians like McEnaney are right that the military did not want to play a large part in civil defense for

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[9] Dee Garrison, *Bracing for Armageddon: Why Civil Defense Never Worked* (Oxford: Oxford University Press, 2006), 35.

[10] see Thomas J. Kerr, *Civil Defense in the U.S.: Bandaid for a Holocaust* (Boulder: Westvier Press, 1983) and Harry Yoshpe, *Our Missing Shield: The U.S. Civil Defense Program in Historical Perspective* (Washington DC, FEMA, 1981)

[11] Edward Geist, *Armageddon Insurance: Civil Defense in the United States and Soviet Union, 1945-1991* (Chapel Hill: The University of North Carolina Press, 2019)

many different reasons, they still viewed it as important, and the imprint the early military planning made on civil defense was a lasting one.

Civil Defense Planning Chronology and Organizations

When the Office of Civilian Defense was disbanded in June 1945, the War Department established the Civil Defense Board and continued planning of what to do if atomic bombs ever struck the U.S. mainland. Slightly more than two years later, the National Security Resources Board was established by the National Security Act of 1947 and Civil Defense became part of its agenda apart from stockpiling of strategic resources. The relatively lax attitude of Truman's administration towards the program continued to 1949 and it was suddenly changed only when the Soviets tested their first A-bomb and with the initiation of hostilities in Korea. In the meantime, the Atomic Energy Commission established in August 1946 was the principal governmental agency providing the public information on the atomic issues.

From 1951 onwards, the Civil Defense program was overseen primarily by the newly created Federal Civil Defense Administration. This agency then formulated the policy to the end of the period this dissertation focuses on, and was replaced only in 1958. It was chaired by Millard Caldwell from 1951 to 1953 and Val Peterson from 1953 to 1957. The Civil Defense program planning reacted to both the international developments and the demand of the American people "to do something". It was a program that had many objectives and its final form was influenced by external contingencies, internal budgetary pressures, and the overall foreign policy planning.

In the time period the dissertation focuses on, the relationship between the USSR and the US went through several phases. In the first one, there was still some hope that some kind of cooperation could continue and a compromise was possible. By 1947 or 1948 at the latest, the top governmental officials had come to view this as wishful thinking. The coup in Czechoslovakia in February 1948, the Berlin blockade which started in June of the same year and ended in May 1949, the first Soviet atomic test, and the Korean War heightened the fear of the average Americans of another superpower military confrontation. When Stalin died and ceasefire was signed in Korea, these tensions eased and more people started favoring cooperation to confrontation. At the same time, in August 1953, Soviets also tested their first thermonuclear device, which meant most of the assumptions the Civil Defense program had been based would become obsolete in the near future.

Hypothesis and research question

The militarization of the American public life in the early Cold War is an undisputed fact. While historians argue about the causes, processes and the extent, the fundamental assumption is unchallenged. Civil defense is a part of this militarization and has been understood as such by all scholars analyzing it mentioned above. This dissertation builds upon this conclusion, but refines the argument about the purposes of the civil defense and the way it served to regiment lives of ordinary citizens in the United States between 1945 and 1957.

The interpretation of civil defense as more or less exclusively a propaganda exercise aimed at psychological conditioning of Americans to accept deterrence, a central argument in Grossman´s and Oakes´s works, does not sufficiently explain why it was adopted so late. Both the citizens and the planners expected the US atomic monopoly to end, albeit most not so quickly. As historian Paul Boyer explains, many Americans understood that atomic bombs might fall on American cities in near future very shortly after Hiroshima and Nagasaki.[12] However, civil defense was not massively promoted before 1950.

The militarization theory proposed by McEnaney provides a good explanation of how the programs affected the family life of the citizens. Nevertheless, her analysis of how it was conceived and what were the reasons for it is incomplete. Institutional histories, which could fill the gap, partly avoid it and partly suffer from obsolescence because new primary sources have emerged since their publication.

This dissertation aims to fill this gap in our understanding of civil defense origins and the militarization it entailed. It proposes that the goal of the militarization was not merely the psychological conditioning of the people, but that the plans from the period from 1945 to 1949, which were predominantly prepared by the military, reflected the real needs of the Armed Forces. The millions of civil defense volunteers recruited by the FCDA in the 1950s had been envisioned by the military in the late 1940s. Their purpose was not providing the citizens with a sense they can do something in case of an attack or to make them accept deterrence. It was to provide a reservoir of manpower the military could use for anything from rehabilitation efforts to putting down insurrections freeing their own trained men for the battlefield in case the war with the USSR, though a remote possibility, would become a reality.

[12] Boyer, *By the Bombs´Early Light*

While the militarization was conducted by an ostensibly civilian agency, the momentum of the early planning together with the cooperation with the military ensured that its plans reflected the needs of the military. In short, civil defense looked the way it did not because it was planned as a farce, but because it was meant seriously. It served the interests of the Armed Forces. It provided trained manpower, it relieved the strain on the Department of Defense budget already considered inadequate by transferring the financial responsibility for protecting the civilians elsewhere, and it gave the nation a reasonable chance of surviving the initial attack and continuing the war.

It was only after 1953 and only gradually that the civil defense became what Grossman and Oakes claim it had always been. With the growing yield of both individual bombs and the arsenals at large, continuation of the war beyond the initial exchange became a remote possibility. While both the military and the civilian planners understood this, the program continued. However, the goals of the program before 1953 (scaring the population into participating in civil defense and preparing them for the shock of mass casualties), though only partially attained, undermined the attainment of the psychological goals of placating nuclear fear after that. In effect, the civil defense went from planning the unimaginable, yet survivable carnage of an atomic war to imagining, and selling the image of, what was clearly becoming impossible, the national survival of a thermonuclear war.

To prove the hypothesis, the following research questions need to be answered.

1) How did the Truman administration placate the atomic fears before the substantial civil defense campaign was launched?

2) Did the atomic threat as perceived by the American public undermine the consensus on foreign policy and/or nuclear deterrence?

4) Were there alternative ways of alleviating the fear of the threat? Why were they not pursued?

3) How did the military anticipate an atomic war with the Soviet Union would look like? How and when did it change?

4) Were the planned shelter programs and evacuation programs seen as feasible, i.e. were they expected to lower casualties significantly?

5) How accurately did the FCDA inform the Americans on the expected level of casualties given the estimates the military establishment had?

Framing the research: Structure and Methodology

The basic framework of the dissertation will be chronological. The years 1945 to 1957 represent a twelve-year period that can be roughly divided into three four-year parts. The years 1945 to 1949 represent a period of relative neglect. AEC was the primary governmental agency conveying the information about the atom to public. Civil defense itself was not a public issue, and if discussed, it was discussed within the governmental bureaucracy. The War Department prepared plans for civil defense from 1945 to 1948 and the NSRB planned for the protection of the civilian population from 1948 to the moment the FCDA was established. These materials, however, were mostly not intended for the public consumption. The first period is marked by optimism; optimism about how the atomic power may be used for the benefit of mankind, and optimism about the international situation and arms control. Even the setbacks of 1948 were not enough to shake that optimism much. After all, the US still enjoyed its atomic monopoly, which supposedly gave it a complete protection.

Since there were no widespread campaigns on civil defense, the third Chapter analyzes both public and secret discourse on international control of atomic weapons. It argues that Truman administration believed in its possibility to certain extent immediately after the war and that it used it as a tool to placate the anxious American public.

The first Chapter investigates the role of military and JCS in the early civil defense planning. It concludes that the civil defense was seen as a useful addition to the overall strategic strength of the United States. It was seen as both practicable and necessary in order to win a war with the USSR.

The second Chapter examines the civil defense planning by the NSRB, a civilian agency. Its main argument is that while the focus was shifted more to mobilization planning, the assumption that a war with the Soviets would not end with atomic bombardment still held firm.

Since there were no widespread campaigns on civil defense, the third Chapter analyzes both public and secret discourse on international control of atomic weapons. It argues that Truman administration believed in its possibility to certain extent immediately after the war and that it used it as a tool to placate the anxious American public.

The start of the second period was signaled by the first Soviet atomic explosion in August 1949 and it ended in 1953 with Eisenhower´s New Look, Stalin´s death, the

end of the war in Korea, and the first Soviet hydrogen nuclear explosive device test. It was a period of frantic activity which was a reaction to the sudden end of the American nuclear hegemony. Truman reacted, on Colonel Burnet Beers´ behest, by establishing the Office of Civilian Defense Planning, OCDP. This office then completed *Hopley Report*, a three-hundred-page document which called for the establishment of a permanent federal agency dedicated to address the issue. Thus, the Federal Civil Defense Administration was born. This agency would be the principal governmental body on the issue up until 1958.

The second period is characterized by a myriad of educational brochures, movies, and radio advertisements. Civil defense became so fashionable a topic, even popular magazines like Look and Pageant published pieces on it. Private media jumped the bandwagon and helped to promote civil defense to the American people. The most famous, and the most often parodied, educational movie of that time is *Bert the Turtle*. Aimed at children, this short movie tried to instill the idea that even just lying down on the ground face down could mean the difference between life and death or injury, when the bomb fell. At this time, FCDA also repeatedly proposed a substantial shelter building program, which would have cost billions of dollars. However, it was never fully implemented.

The second part is divided into three Chapters. The first of those deals with the question of adequacy. It scrutinizes the planning assumptions and answers the question to what an extent civil defense was still seen as feasible. It argues that while the doubts grew with the growing Soviet capability, it was considered generally realistic to expect a long war in which the initial atomic exchange will be but a first phase. The second, Chapter 5, then focuses on the preoccupation with the problems of individual psychology and national will. It concludes that while psychology was seen as important, its importance was not mainly for the continued support of deterrence as scholars have traditionally argued, but for the ability to absorb casualties and continue fighting.

Last Chapter of the second part, Chapter 6, then deals with the messaging in that period. Its main argument is that the effort of the campaigners was not to alleviate nuclear fear. On the contrary, it was to foster it in order to help promote civil defense volunteer recruitment. This effort went as far as to actively discourage the existing public faith in military protection, which would otherwise have encouraged support for deterrence more easily.

The third and the last period started in 1953 with the Soviet hydrogen bombs and ended in another shock for the US public, the launch of Sputnik. The hydrogen bombs multiplied the already terrifying power of nuclear weapons, and rendered sheltering within a city a far-fetched option. Val Peterson, the new FCDA administrator, understood that and called for a new strategy of evacuation and dispersal. Starting in 1954, a series of national civil defense drills was conducted with the declared goal of training both the staff and civilian populace, and evaluating preparedness levels. However, the issue of fallout complicated the evacuation assumptions. Furthermore, civil defense became a part of the so-called continental defense, a complex system combining both military and civil defense measure.

Chapter 7 focuses on the way the thermonuclear weapons' terrifying destructive potential changed the assumptions underlying both military strategy and civil defense. It concludes that while there was little change at the beginning of the period in question, the realization grew that the enormous damage sustained by both superpowers during the initial exchange would most likely render further military actions impossible. Accordingly, civil defense became unnecessary for the military strategy.

The next Chapter, Chapter 8, analyzes how the so called passive defense was integrated into the continental defense. It argues, however, that despite the attempts at making civil defense viable through combining it with anti-air defense systems, the lack of funding resulting from Eisenhower's strategic priorities resulted in both systems' being mostly ineffective. The last Chapter again focuses on the way the American public was informed about these developments. It establishes that fairly accurate information was given about fallout and overall casualty estimates as late as 1955, but the latter virtually disappeared from the public discourse. Civil defense campaigns in this period did become an empty promise, partly because no significant action had been taken on shelters and partly because the capacity of the nuclear weapons to destroy had outpaced the technological means of protection.

This structure, allows to prove or disprove the hypothesis and answer the research questions defined above. This combination of chronological and topic organization seems the most fitting to addressing the issues which need to be addressed.

The predominant approach of the aforementioned works on civil defense utilizes diplomatic and cultural history. They analyze the militarization of the American society mainly as a reaction to the international situation and perceived foreign policy needs, and describe the impact of this militarization on different social groups and interactions.

This, however, not only fails to answer some important questions about the program itself, but also mischaracterizes the dynamics which led to adoption and rejection of certain aspects of the program and variations in time. It mostly views civil defense as static; a reaction to the technological revolution in weaponry which could argue against evacuation before 1953 and for it after that, because it lacked any tangible purpose. It also tends to view the US military establishment as a monolith rather than a myriad of institutions and individuals with often competing interests.

The civil defense program for the atomic age, however, was mainly a military program. Not only were the first serious plans produced within the armed forces, but the program´s purpose was mainly a military one, to help the US win an atomic war against the USSR. Therefore, military history offers the most productive method to study the phenomenon. Even though they do now acknowledge it, the authors of the literature on civil defense in the US base their analysis on the presumptions of a revolutionary change which is supposed to have occurred in 1945. This would mean that the bombing of Hiroshima and Nagasaki would constitute a Revolution in Military Affairs, or RMA.

Nevertheless a change in weaponry, however significant, does not necessarily represent a true RMA. Futurists Alvin and Heide Toeffler define RMA as a shift, which dramatically alters not only the way the war is fought, but the relationship between warfare and society. Therefore, they only acknowledge two such revolutions in the history of human kind, the shift from nomadic to agricultural pre-modern societies and the emergence of industrial societies which replaced them. Atomic weapons, in their perspective, represent a climax of this development towards industrialized and total war, but is not a revolution in itself.[13]

While it may not have caused a RMA, the destructive power of the new weapons did mean a revolutionary change for the US, though. As described in the first part of the dissertation, the US mainland was under serious threat by a foreign enemy for the first time since the beginning of the 19th century. Both the Japanese and the Germans lacked the logistical capability to sustain an invasion of the US mainland in World War II. Strategic bombing with conventional weapons over the Pacific and Atlantic oceans would have offered little returns to the attackers even if they had had the ability to launch such a campaign. The atomic bomb increased this possible return on resources

[13] Elinor C. Sloan. *Revolution in Military Affairs* (Montreal: McGill-Queen's University Press, 2002) 18-20.

invested so significantly that the US planners considered an attempt by the USSR to strike such below possible, albeit remotely.

This, together with the American engagement in Europe, presented a fundamentally security paradigm for the United States. For the first time, a large standing ground army was required and the Air Force rather than the Navy became the first line of defense against an enemy attack. The US planners tried to satisfy this newfound need for a large national security apparatus in a way which would not change the country into a garrison state. This aspect of the militarization is analyzed using the concept of National Security State.[14]

However, the emergence of large permanent national security apparatus can only be perceived as revolutionary from purely American perspective. Furthermore, while it could be considered a revolution in a way this particular nation prepared for war, the planners did not assume it would cause a revolution in the way it would fight a war. Therefore, this text will follow the lines of an evolutionary approach to military history as defined by historians Xavier Rubio-Campillo and Francesc Xavier Hernàndez Cardona.[15]

This methodology is the most suitable for the topic, because it offers the possibility of analyzing complex systems behind the changes in warfare.[16] While the changes put in place by the planners of the atomic war were, luckily, never used operationally, they constitute a rapid evolution in the way war was supposed to be fought and won. This evolution was driven by the outside pressure of the events on the international stage and technological advances, but also by the domestic impetuses of armed forces restructuring and budget constraints. Therefore, the military establishment and subsequently the civilian agencies tasked with finding a way to ensure survival in the event of an atomic war were constantly adapting to the changes of both offensive and defensive technology, rising or ebbing tension between the two superpowers, and the domestic political changes.

[14] see Hogan, *A Cross of Iron*

[15] Xavier Rubio-Campillo and Francesc Xavier Hernández Cardona, "Evolutionary Approach to Military History" in *Revista Universitaria de Historia Militar*, Vol. 4 (January, 2014), 256-258. Accessed June 10, 2021 <https://www.researchgate.net/publication/262002933_An_evolutionary_approach_to_military_history>

[16] Ibid.

The story of civil defense narrated in this text, is the story of institutions´ fight for resources and relevance in the face of the changed national security paradigm,[17] but not a revolution in warfare. As will be demonstrated, the power of the bombs and the means of their delivery only reached the level which made major war between the US and USSR unwinnable in the classical sense of the word towards the end of the analyzed period. Since the dissertation focuses on the decision-making process,[18] evolutionary game theory approach carefully analyzing the impetuses for adaptations and the way they were received by the planners is the most productive means of understanding the adjustment of the US to the new realities of atomic warfare between 1945 and 1957.[19]

However, since this dissertation also analyzes the way the military strategizing was communicated to the public, Chapters 3, 6, and 9 will focus on public discourse. The communication is still a large part of the story of how the planners intended to prepare the American society for war and could thus legitimately be seen as a part of the evolutionary principle. Nevertheless, the understanding of the campaigns and the way language and imagery was used requires discourse analysis as well.

Analysis of primary and secondary sources

The most important secondary sources are naturally those works dealing with the issue of civil defense directly. These were described in the State of the Art subchapter. The timeframe of Andrew Geist´s book does not allow for a detailed analysis of the origins and the evolution of the civil defense doctrine as a part of the overall military planning. Most other works focus on cultural rather than military or institutional history, and thus their approach to the planning itself is relatively narrow. As outlined in pages 3 to 7, Garrison, Grossman, Oakes, and McEnaney tend to describe civil defense as a program with a single goal and the bureaucracy behind such planning as a much more singular body than it really was. This is another reason why evolutionary approach could help to yield more complex understanding of the program´s planning and purposes and by doing so render more nuanced conclusion.

[17] as evidenced by the fight between the Navy and the Air Force, see David Alan Rosenberg, "American Atomic Strategy and the Hydrogen Bomb Decision," in *The Journal of American History,* Vol. 66, No. 1 (June, 1979), 69-73.

[18] Rubio-Campillo and Hernandez use the evolutionary game theory to analyze the decision-making of a field commander who needs to take into account possible enemy actions. This approach could also be successfully employed to analyze the decision-making of the civil defense planners training to counter possible enemy action based on the intelligence they receive and past events.

[19] Rubio-Campillo and Cardona, 266-269.

Given the importance of the military aspect of civil defense for the methodological approach of this dissertation, there are extremely helpful works which do not focus primarily on civil defense. The first two used are Gregg F. Herken´s *The Winning Weapons: The Atomic Bomb in the Cold War 1945-1950* or Andreas Wenger´s *Living With Peril: Eisenhower, Kennedy, and Nuclear Weapons*. Those books provide a general policy framework into which nuclear weapons were put, and the civil defense programs were within the same framework. They also work with intelligence materials as Soviet capabilities estimates and it is interesting to compare how these were used in supporting stronger conventional forces, nuclear forces, or civil defense.

These particular works were chosen, because their focus and methodologies best correspond to the approach of this dissertation to civil defense. It could be argued that Ken Ross´s volumes on the American military strategy describing in details individual emergency war plans might be more suited to provide the guide to the military strategy which influenced civil defense. However, Herken´s book focuses more on the gradual changes the nuclear weapon brought into military and diplomatic thinking in the US between 1945 and 1950. He also provides an international context for this evolution, while Ross focuses heavily on weapons´ development and availability.

Andreas Wenger´s work also suits the methodological approach of this dissertation. It describes what the author calls the nuclear learning of the two presidents and administrations. The narrative of this learning is extremely useful because civil defense planning went through very similar process of nuclear learning, albeit for different purposes. While Wenger describes the evolution of the American diplomacy, the civil defense was more connected to military strategy. However, these two are intertwined. Diplomacy needs the input of the military planning to evaluate the possible outcomes of a conflict with any given state in order to determine a nation´s diplomatic possibilities. Military establishment needs the information on who the possible rival or enemy could be and what the possible war aims might be in order to determine how to defeat such an enemy and achieve the stated goals. Civil defense was conceived as a part of the answer to the question of how to defeat the Soviet Union.

The cultural impact of the bombs is another area of study related to civil defense in which secondary literature is abundant. The most important work concerned with the cultural and political impact of the atomic bombs and not civil defense per se is Paul Boyer´s *By the Bomb´s Early Light: American Though and Culture at the Dawn of the Atomic Age*. Boyer´s book, while published in 1985, is arguably still unrivalled in its

detailed and comprehensive account of the adaptation of the American culture to the bomb. Since it mostly uses unclassified sources, its conclusions are little changed by the more recent scholarship, which analyze particular aspects rather than offer new grand narrative.[20]

In terms of the methodological framework, two important books about the militarization of the US society are used in this dissertation. They are *In the Shadow of the Garrison State: American Anti-Statism and Its Cold War Strategy* by Aaron Friedberg and *A Cross of Iron: Harry S. Truman and the Origins of the National Security State, 1945-1954* by Michael J. Hogan. Both books again fit the evolutionary approach to the American military planning used in the dissertation. They describe how the American bureaucracy dealt with the outside pressures of the Cold War while trying to balance the perceived security needs with the needs of the democratic political system. Civil defense was again a part of this balancing between the need to build and maintain strong defenses and the aversion to a regimented civil life.

However, the dissertation relies mostly on new primary sources and reevaluation of the ones already used by other authors based on the new context. Its most important contribution lies in new findings which allow for the narrative of the early Cold War civil defense to be framed using the evolutionary approach. The primary sources used in this text are from College Park, MD, Truman Presidential Library, MO, and Eisenhower Presidential Library, KS, all organized under NARA. Furthermore, documents from the CIA CREST online database are used. Another useful source is the online database of the National Security Archive, a non-profit under George Washington University.

Most of the documents used are declassified governmental reports prepared by either military or civilian agencies responsible for civil defense. They were not intended for public consumption and therefore represent a clear picture of the debates on the changes of the US military strategy and posture in the period. Naturally, this does not mean that there was no intent in the way they were presented, phrased, and their selection and interpretation of the information gathered by the US intelligence services. Therefore, the dissertation confronts the most important conclusion with the raw data they were based on if such are available. Intelligence reports represent the second most frequent type of primary sources used in the dissertation. These were not intended for public consumption either and thus paint an accurate picture of the information on

[20] See Imaginary War.

survival in the nuclear the planners received. Naturally, whether this information was realistic is a different question altogether and is not discussed in this dissertation.

The important organization whose records are used include the Joint Chiefs of Staff, the National Security Council, Departments of the Army, Air Force, and the Navy, the National Security Resources Board, the Federal Civil Defense Administration, and their offices.

Communication between important persons involved in civil defense planning in the form of letters and memoranda is also used throughout the text. These documents are more personal and emotional than reports and intelligence, but they provide an important insight into the thinking of some of the planners who were faced with the dauting task of preparing civil defense against atomic weapons. Among other things, they reveal that conventionalization (i.e. a line of reasoning which understood atomic bombs and simply more powerful conventional weapons) was more than a farce for the public. It was a position held by many in both the military and civilian bureaucracy.

Lastly, the primary sources include the documents which were either consumed by the public or were intended to be. These include pamphlets, radio spot scripts, educational films, speaker´s kits, posters, and records of the Alert America exhibit. These are analyzed in order to determine to what an extent the official message on civil defense and nuclear war differed from the secret deliberations of the planners and the information available to them.

PART I 1945-1949

Chapter 1 - Defense of the People; planned by the Military and for the Military

Most of the civil defense planning during the era of the US atomic monopoly was concluded with little publicity and virtually no information campaign run by the government. There were several agencies responsible for preparing the United States for a possible total war with the Soviet Union; most important being the Civil Defense Board, established on November 25, 1946 under the War Department, and its successor, the Office of Civil Defense Planning, established on March 27, 1948.[21] Some responsibilities were delegated to the National Security Resources Board, which was predominantly focused on stockpiling war materials critical for war effort.

Nevertheless, it could be argued that the origin of the concepts of American civil defense was military rather than civilian. This fact has two important and long-lasting ramifications for the program as a whole. Firstly, its basic tenants were conceived at a time of radical and far reaching changes in the national security establishment which entailed bitter prioritization struggles between the newly created three services; Army, Navy, and Air Force. Secondly, the primary purpose of the measures proposed was not protecting civilians as individuals, but protecting the home front and its productive power, which were seen as instrumental in winning the potential albeit unlikely conflict with the USSR.

Oakes and Gorssman claim that "two crucial events crystallized the concerns of civil defense theoreticians about nuclear terror in the early years of the Cold War the Soviet atomic bomb test of 1949 and the outbreak of the Korean War in 1950."[22] However, the fears of military planners that a successful bomb attack on the home front could destroy the will of the populace predate the atomic age. They first occurred when the advent of air power made such attacks possible in 1917 and 1918. The proponents of strategic bombing were certain conventional bombs were enough to achieve this.

In order to understand the rationale of the civil defense planning between 1945 and 1949, i.e. at the time no other country in the world possessed the A-bomb, it is important to consider the whole program in the context of the overall plans for a general war and the role strategic bombing was supposed to play in it. Furthermore, it is

[21] Guy Oakes, Andrew Grossman, "Managing Nuclear Terror: The Genesis of American Civil Defense Strategy" in *International Journal of Politics, Culture, And Society*, Vol. 6, No. 3 (Spring, 1992), 369-370.
[22] Ibid., 365.

important to make distinction between different agencies and military services as they often did not agree on what the conflict with the USSR would look like and how to win it.

There was often disagreement on both the capabilities and the intentions of the USSR. There were similar disagreements on the actual capabilities of the United States. Nevertheless, two facts were seen as fairly certain in case of a war as evidenced by the report on the threats to the US security by the Office of Reports and Estimates from September 1948. Firstly, that the US strategic bombing offensive could not prevent the Soviet occupation of Western Europe, let alone end the war. And secondly, that the Soviet economy was not able to support a prolonged global war and would not be able to do so until 1958.[23] While this does not mean that the bomb was considered useless, it illustrates the degree to which the US economic advantage was emphasized.

There was not even agreement on how much this favorable American position would suffer if and when the Soviets obtained their own atomic bomb, the date of which also differed based on who made the estimate. The earliest possible date assumed in 1948 was 1950.[24] The implications, however, were very much disputed. The Air Force, maybe naturally inclined to overestimate its own importance, saw the US atomic monopoly as the only factor that maintained the balance of power in favor of the West. So it logically expected the balance to shift in the Soviets´ favor immediately upon their testing their first bomb; the conclusions CIA wholly rejected because they did not take the economic and industrial advantage of the West into account.[25]

There were two other major factors that influenced the evaluation of the importance of the Soviets´ breaking the US atomic monopoly. First, the Soviet delivery capabilities were considered inadequate with the situation possibly changing only in mid 1950s.[26] And second, as historian Ken Young noted, the US military plans "were, at that stage, little more than aspirations".[27] Therefore, the government planners faced the inevitability of the Soviet A-bomb unsure of the consequences and even uncertain of

[23] "Threats to the Security of the United States", enclosed in a CIA memorandum to Col. Marrit B. Booth, Col. Riley F. Emis, Capt. F.S. Habecker and James F. Olive, September 3, 1948, Office of Reports and Estimates; NSC File; Box 4; Truman Papers; Truman Library.
[24] R.H. Hillenkoetter, Memorandum for the President: Estimate of the Status of the Russian Atomic Energy Project, July 6, 1948; Memoranda for the President, May 28,1948 - August 31, 1950, 3 of 3; NSC File; Box 2; Truman Papers, Truman Library.
[25] CIA Comments on Air Force Study no. 211, 1949; NSC File; Box 12; Truman Papers, Truman Library.
[26] CIA Draft, "Threats to the Security of the United States", September 3, 1948; Office of Report and Estimates, NSC File; Box 4; Truman Papers, Truman Library.
[27] Ken Young, "US 'Atomic Capability' and the British Forward Bases in the Early Cold War," in *Journal of Contemporary History,* 42, no. 1 (Jan, 2007): 19.

whether their own Air Force was able to deliver the blow against the Soviet industry as envisaged in the Emergency War Plans.

The value of the atomic bomb was often praised in official and secret documents. NSC 30, for example, the report on formulating the policy regarding the use of the bomb, stated that "if Western Europe is to enjoy any feeling of security at the present time [...], it is in large degree because the atomic bomb, under American trusteeship, offers the present major counterbalance to the ever-present threat of the Soviet military power."[28] This feeling of security, however, was not based on the US real military capability of defending Western Europe.

As late as February 1948, the Secretary of Defense James Forrestal in his report to the President conceded that "we do not, at this time, have a definitely agreed-upon or carefully analyzed concept as to the character of a future war [...], nor of the kind of military establishment we require [...]."[29] This was mostly because different services argued about their respective value in a future conflict and accentuated, in Forrestal´s words, "by the knowledge of each that an increase in funds for the other means, under a limited budget, a reduction in its own funds."[30]

There was a significant amount of uncertainty of what the value of strategic bombing campaign against the USSR using atomic bombs in a future war would be. The issue of the means of delivery, i.e. the bombers, has been mentioned. The severe limitation this would place on the strategic bombing efficacy combined with the Soviet air defenses called the whole concept of atomic bombings to such a degree Truman himself wanted to know what the prospects for a successful attack and on the USSR were and what its possible effects would be.[31]

The Secretary of Defense at the time, Louis A. Johnson, replied that he had received "a JCS report which covers the probable effects [...] upon the assumption that the bombs can be successfully delivered at the required aiming points. The study covering the validity of this assumption has not yet been completed and probably will

[28] NSC 30, September 10, 1948, p 2; NSC 30/1;Records of the NSC; Policy Papers 19-30; Box 3; Record Group 273; National Archives at College Park, College Park, MD

[29] James Forrestal, *Report to the President by Secretary of Defense*, February 28, 1948, p 28; Defense Dept., Report to the President from the Secretary of Defense 2-28-48; Confidential File; Box 12; Truman Papers; Truman Library.

[30] Ibid.

[31] Harry S. Truman, Memorandum for the Secretary of Defense, April 21, 1949; 174-15, Atomic Bomb, Strategic Bombing; PSF; Box 174; Truman Papers; Truman Library.

not be for a considerable number of months to come."[32] Thus, essentially admitting nobody in the US armed forces had a clue. If the bomb had been the key weapon to defeat the Soviets, this would have been rather shocking. Especially given the fact that the bombing effects themselves were not considered enough to force the Soviets to surrender.

To say that the loss of life would have been appalling, would be a gross understatement. J.C.S. 1953/1 from May 12, 1949 estimated that the 30-day bombing campaign would result in 2.7 million fatalities, additional 4 million non-lethal casualties and a serious housing crisis for the survivors of the 28 million people in the 70 target areas. While the planned attack would have caused a serious problem in oil refining and reduced overall industrial capacity of the USSR by 30 to 40 percent, these effects were considered reversible.[33] The Soviet home front, in other words, was not expected to collapse under a blow almost three times more powerful than the one the Soviets were expected to be able to deliver only in 1955.[34]

This fact undermines two main conclusions underpinning Oakes´s and Grossman´s argument about the civil that it was an exercise that was seen as having little practical value but tremendous psychological impact that enabled the United States to rely on the strategy of nuclear deterrence. In their article *Managing Nuclear Terror,* they argue that the planners had three options on how to mitigate the terror; to convince the people military protection was possible, to really start an ambitious program which would offer some degree of passive protection, or to just persuade the people they could protect themselves. They conclude that the US government opted for the last one.[35]

In his separate article *The Cold War Conception of Nuclear Reality*, Oakes then argues that "the paradoxical result is that if civil defense is necessary, then it is impossible. If it is possible, then it is not necessary."[36] However, both inferences, which are central to their argument the emotional control was the only significant purpose of the civil defense programs, are invalid for the period in which the basic assumptions on which the whole concept of defending the home front rested were formed. If the US

[32] Louis A. Johnson to the President, April 27, 1949; 174-15, Atomic Bomb, Strategic Bombing; PSF; Box 174; Truman Papers; Truman Library.
[33] J.C.S. 1953/1
[34] Hillenkoetter, *Memorandum to the President*
[35] Oakes and Grossman, 394.
[36] Guy Oakes, "The Cold War Conception of Nuclear Reality: Mobilizng the American Imagination for Nuclear War in the 1950´s", in *Internationl Journal of Politics, Culture and Society,* Vol. 6, No. 3 (Spring, 1993), 361.

planners thought the Soviet Union was able to survive their atomic bombardment in 1949, they could reasonably be expected to ascribe the same ability to the American society at least through to mid 1950s. However, this ability, which was automatically assumed for the Soviet state, was conditioned on adequate preparations by the American one.

There were two main and distinct approaches to the problem in the period between Hiroshima and the first Soviet atomic test; neither of the two perceived the issue from purely civilian perspective and both rested on the assumption that an atomic war in late 1940s and early to mid 1950s would be a long affair. Moreover, both applied the logic in which the programs were to ensure the ability of the armed forces, and the whole country, to continue to wage and win the war, not to ensure personal safety of the citizens.

There were many aspects of protecting the home front, which actually physically changed the way American cities were built. As historian Peter Galison argues: "Three years before the Russians had the bomb [...], American analysts were already advocating a massive dispersion of factories and populations against atomic aerial attack."[37] While it had little tangible effects until after 1949, which is true for most civil defense activities, the industrial dispersion was based on the presumption that an atomic war could not only be survived but won.

The National Security Resources Board made similar recommendations regarding government offices in Washington, DC in 1948. The capital would naturally be a prime target for enemy bombers, whether laden with atomic, regular, or other unconventional munitions. Virtually all new government buildings were to be built using a decentralized pattern which would "mean that the dispersed units will be separated from each other and from the downtown Washington area by a distance of five to ten miles, depending upon topography, transportation and utility development."[38]

As historian John D. Krugler rightly points out, the plan was never adhered to vigorously and that "even if the federal government had dispersed the capital, the reconfiguration would have offered little, if any, protection against hydrogen detonations. [...] passive defensive measures could not keep pace with the weapons they

[37] Peter Galison, "War Against the Center", in *Grey Room*, No. 4 (Summer, 2001), 29.
[38] NSRB, *A Recommendation to the President by the National Security Resources Board on Security of the Nation´s Capital*, October 1948, Confidential File, Box 22, NSRB 1 of 7, Truman Papers, Truman Library

faced."[39] This is a fact and it is also a fact that the Emergency Committee of Atomic Scientists predicted as much, albeit in relatively vague terms, in 1947.[40] Nevertheless, as we have seen, the military planners focused on the period of the next five years did not see it the same way.

In fact, they only started seeing an atomic war unwinnable in 1957 when contemplating a possible nuclear exchange in the early to mid 1960s.This will be explored in more detail in the third part of this thesis analyzing the period between 1953 and 1957. It is easy to label it a fantasy and it is not the purpose of this text to argue to what an extent it was realistic. It is enough that the planners themselves considered it realistic and there seems to be plenty of evidence to support that assertion.

Oakes claims that "these presuppositions [on post-attack reality] are not secured by civil defense [...] they are the unsecured basis on which civil defense rests."[41] He may be perfectly correct in his evaluation. But the fact is that the planners themselves believed that with adequate preparation, mostly dispersion, stockpiling and basic sheltering, supposed post-attack conditions could be achieved. In other words, they did not think they were selling the American people an unrealistic image of an atomic war solely for the purpose of managing their emotions. It is true, though, that managing these emotions was seen as one of the essential factors for achieving said conditions.

Oakes and Grossman are correct in asserting that the national will was seen as the crucial component of civil defense.[42] Nevertheless, it was never to be the only component. The Report of the Civil Defense Board in 1946, which they refer to in their argument, clearly distinguishes between the issue of morale and practical issues. When assessing the civil defense measures in Germany and Japan, the so-called Bull Report named after the Board´s president, concludes that while the people were psychologically prepared, the overall measures were inadequate.[43]

Furthermore, their interpretation of the meaning this word had for the American planners is incomplete and inaccurate. They focus on the support for deterrence and the military anxiety over the possibility the American people would rather give up the

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[39] John D. Krugler, *This is Only a Test: How Washington D.C., Prepared for Nuclear War* (New York; Palgrave and MacMillan, 2006) 6.
[40] *A Statement by the Emergency Committee of Atomic Scientists,* October 1947, RG 304, Box 5, NARA.
[41] Oakes, "The Cold War Conception of Nuclear Reality", 361.
[42] Oakes and Grossman, „Managing Nuclear Terror“, 364.
[43] War Department, Civil Defense Board, Report, August 1946, 7-9. <https://training.fema.gov/hiedu/docs/historicalinterest/war%20department%20-%20civil%20defense%20board%20report%20(bull%20report).pdf>

nuclear weapons themselves than risking being targeted by them. This was reflected by the clamor for international control of the atomic weapons, but as Chapter 3 illustrates, the Truman administration managed these expectations through the information campaign related to its own UN proposal, the Baruch plan.

Furthermore, the public´s approval was never unqualified and the mood always skeptical about the possibility the Soviet Union would agree to such plan. Even more importantly, the polls from 1948 and 1949 indicate that both nuclear deterrence and NATO enjoyed high levels of support from the Americans at large. In two AIPO surveys from May and June 1949, 67 % of those asked thought the Senate should ratify the North Atlantic Treaty while those opposed represented only 12 and 15 % respectively.[44] In another survey by the same company from August 1949, only 28 % of the respondents agreed that the US should pledge not to use atomic bombs unless they were used against them, and 70 % disagreed.[45] There is very little evidence that the public had turned isolationist. For the whole period of 1945 to 1949, the American citizens overwhelmingly favored being tough on the Soviet Union.

There is also very little evidence that this is what either the civil defense planners feared in those formative years, either those in military structures or in the NSRB. These programs were not intended to marshal public support for either nuclear deterrence or NATO in times of peace. After all, there was no massive publicity campaign yet. On the other hand, there is overwhelming evidence that what they were intended to do was to allow the army to continue and win a war after an attack. Furthermore, they were supposed to accomplish this without straining the capacities of armed forces so as to allow them to focus on the fight.

Oakes and Grossman assert that there was anxiety among some planners expressed in a monograph written by Ansley Coale and published by the Committee on Social Aspects of Atomic Energy that "first few bombs [...] could destroy the resolve of the American people [...], even though the actual damage [...] might not be substantial."[46] This, however, was nothing more than the repetition of the same fear of crippling air strike that military planners had been suffering ever since the first world war, both in the US and abroad.

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[44] Midlred Strunk, "Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 13, No. 3 (Autumn, 1949), 549.
[45] Midlred Strunk, "Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 13, No. 4 (Winter, 1949-1950), 710.
[46] Oakes and Grossman, „Managing Nuclear Terror", 369.

Moreover, it is true that the first bombings of civilian and industrial targets in that conflict inflicted minimal casualties among the people, but their impact on production was much more significant. During the German raids on Britain between September 24 and October 1, 1917, 47 people were killed and further 226 injured. Nevertheless, they caused a drop by almost 90 % in production of suits in one East End company and in Woolwich Arsenal, almost three quarters of the workforce were absent during the raids, hampering production. The grip of fear was so tight that Rear-Admiral Kerr warned the government that the Germans might be planning a knockout blow with 4,000 planes.[47]

While the atomic bomb was a terrifying enhancement of strategic bombing, it is clear the military had considered even a conventional strategic bombing campaign as serious enough threat. JCS 1723/1 describes this anxiety over the Americans´ resilience as follows: "Such attack will cause moderate blast and fire damage to worker housing, communications, utilities, etc., in the immediate area of the targets. [...] Casualties will be small. However, the psychological effects would be serious and far-reaching."[48] Psychology and national will were the main factors in those. This, however, did not refer to the will to support deterrence so that a war would not break out. The planners were afraid the will to continue a war which has already started would collapse after a relatively small scale atomic attack.

The reason why the military had so little confidence that the Americans would withstand even a very modest bombing campaign — especially when their own Strategic Bombing Surveys attested to the Germans´ and Japanese´ having lived through much more serious carnage without breaking — could be summed up in one word, preparedness. The aforementioned Bull Report from 1946 acknowledged that both countries had prepared in advance and while both their systems were evaluated as inadequate in the end for different reasons, their populations were ready.[49]

The most lavish praise was reserved for the British civil defense system and most specifically the foresight with which the country had started to prepare the population in advance. The report applauded the "the five year pre-war 'selling' of air raid precautions to the British people [which] prepared them for ready acceptance of an authoritative program. This [...] can well be credited with averting complete disaster

[47] Richard Overy, *The Birth of the RAF* (London: Penguin Books, 2019), 35-37.
[48] JCS 1723/1, RG 218, Box 199, Planning for Civil Defense of US, Sec. 1, NARA, 25.
[49] War Department, Civil Defense Board, Report, August 1946, 8-9.

when the enemy struck."[50] None of this supports the assertion that the military was afraid of pre-attack terror interfering with foreign policy. It does give credence to the conclusion that what they were most concerned about was the post-panic attack interfering with war production.

This is also evidenced by the list of those the planned organization was responsible for protecting. Russel J. Hopley, director of Civil Defense Planning within the military establishment, submitted a summary of his office´s plans and program in July 1948, which states that the proposed Civil Defense Agency would prepare plans for "the protection of personnel and equipment of industrial plants, public buildings and other facilities, [...]."[51] The population would be best protected if these were kept operational and ready to assist them after an attack. Surviving the attack would be a responsibility of the citizens themselves, though.

The military had to solve a whole range of issues in order to secure the home front´s retaining the ability to supply the armed forces with necessary weapons and munitions. In addition, they had to be able to achieve this without sacrificing their own manpower to these so-called rehabilitation tasks. Incidentally, this was one of the things that the Bull Report criticized the German civil defense system for.[52] This is also the sentiment expressed in JCS 1723/1 which stated that using the armed forces to perform "civil defense obligation would provide an unsurmountable [sic] obstacle to sustaining successful combat operations."[53]

The Joint Chiefs of Staff even went as far as suggesting that the proposed volunteer corps could in certain situations act as a part of the armed forces. The report envisaged applying the rules of war to these non-military personnel and using them to "combat small-scale, sporadic enemy attack."[54] It is not specific what type of attack they would have to repel. Nevertheless, it is clear that the military not only wanted to rescind all its obligations in civil defense, but it also wanted the civil defense units to assume in part the role of a fighting force. The system, despite its name, was conceived rather as a quasi-military force augmenting the armed forces.

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[50] Ibid, 7.
[51] Office of Civil Defense Planning, Summary of a Plan and Program for National Civil Defense, July 31, 1948; RG 218, Box 199, Planning for Civil Defense of US, Sec. 2, NARA.
[52] War Department, Civil Defense Board Report, 8.
[53] JCS 1723/1, 9.
[54] Ibid.

It is easy to suspect the JCS of deliberately presenting a more optimistic picture of the effects of atomic bombs falling on American cities. Especially given the fact that noted physical chemist Irving Langmuir in his testimony before the Senate Special Committee on Atomic Energy estimated fatalities of 40 million if 40 US cities were bombed by one bomb each.[55] The secret estimates of casualties and killed per bomb used in planning the post-attack rehabilitation at that time differed by the factor of ten if the bomb hit a densely populated area like New York.[56] Fortunately, there is no way to decide who was closer to the truth in the late 1940s and looking in the 1950s. Moreover, it bears little significance in the analysis of the origins of the program.

It is, of course, possible that the whole US bureaucracy succumbed to one of the greatest mass self delusions in history simply because they believed there was no other way then to continue on the present course. After all, what were the chances the world would have repudiated the use of atomic weapons even if the United States had done so? The national security establishment quite clearly believed that close to zero. However, the estimates for US casualties, which range from approximately 20 thousand killed in more loosely populated urban areas to 120 thousand for New York[57], are quite in line with the calculated lethal effect of the US bomb, which were on average approximately 20 thousand killed per bomb and nearly 40 thousand per a targeted city.[58]

Even these relatively low casualty estimates would have meant that a surprise attack with 50 bombs over the most populated areas of the country, thought possible in 1955, could have caused more than twice as many civilian deaths in the US as the combined Allied bombing offensive had caused in roughly two and a half years.[59] The crucial questions that need to be answered is how the planners expected the country to sustain millions of deaths in a few weeks and why they thought the Soviet Union was able to achieve this feat. Three important factors made them believe that USSR could sustain such a loss, physical, psychological and ideological.

It was in the first two areas, they thought, where the key to America´s survival of the nuclear war lay. It was these two crucial aspects that the civil defense, as planned in the late 1940s, was supposed to focus on. Nevertheless, the ideological has to be

[55] Oakes and Grossman, 373.
[56] JCS 1723/1, 31.
[57] Ibid.
[58] J.C.S. 1953/1
[59] JCS 424/2, 23; Kenneth P. Werrell, "The Strategic Bombing of Germany in World War II: Costs and Accomplishments" in *The Journal of American History*, Vol. 73, No. 3 (December, 1986), 709.

mentioned too, despite the fact that it was the one the US could not, or rather would not, emulate. The Air Force Intelligence voiced this sentiment in its dissent on a top secret report evaluating the strategic value of the conquest of Western Europe by the Soviets. In essence, the report asserted that the USSR was not ready to wage and win a war against the US mostly due to its inferior production capacity further diminished by the atomic bombing, thus, making it virtually impossible for the Soviet leadership to take this course of action.[60]

The Air Force, however, disagreed with this evaluation of the Soviet intentions. This was mainly because of the emphasis they gave to the perceived superiority of the communist system over the capitalist one in marshalling all the available resources for war. This advantage, from this perspective, extended to an atomic confrontation. The dissenting opinion read: "They [...] may consider that with their vast expanse, their reserves of slave labor, and their rigid, centralized control, in any final atomic contest our capitalist economy could not endure the same intensity of punishment [...]."[61] Paradoxically, the same economic system which made the US more powerful also made it more vulnerable.

Of course, this is an attempt at reconciling two positions of two different agencies; an attempt which they may not have felt the need to make. However, as the second part dealing with the period of 1949 to 1953 will show, this belief that the Soviets were ideologically and thus psychologically more adapt at surviving the horrors of nuclear war without their society´s collapsing into chaos was still present. These also echoed the earlier doubts about the American character, considering the people too weak, soft and pleasure seeking, as described by Oakes and Grossman.[62]

It is also important to note that the Secretary of the Air Force at that time, Stuart Symington, became the head of the NSRB in 1950 and responsible for transferring civil defense responsibilities to the newly found Federal Civil Defense Administration in 1951. He was also friendly with the first director of FCDA, Millard Caldwell. The conclusion that the communist society with its military style of government might be better at sustaining the horrifying damage that a total war necessarily entailed thus became the accepted wisdom in civil defense planning.

[60] CIA, ORE-35-48, July 30, 1948; RG 341, Box 42, TS Cont. No. 2-3100 - 2-3199, Jul 48, NARA, 4.
[61] Ibid., 14.
[62] Oakes and Grossman, 364.

It was clear that the United States could not become a Soviet style state in order to be able to fight the Soviet Union. However, unprecedented militarization was called for by the armed forces civil defense planners. It has been mentioned that the civil defense volunteers were expected to assume a role in active defense as well as the passive ones. When writing about the responsibilities in more detail, JCS 1723/1 envisioned that the armed forces would only train the key personnel and provide guidance, while the Office of Civilian Defense would be responsible for their training and arming. This should have enabled them to repel enemy airborne attacks, guerilla war and sabotage.[63]

These plans never came to fruition. Nevertheless, it does reflect what the military thought the post-attack society would look like and what would be needed to control it. It went far beyond the level of mobilization and militarization that the US citizens had experienced in World War II. The JCS report is not clear on what the domestic legal status of these quasi-military units would be and who would command them, but the fact that such large scale citizen militia was contemplated is astounding. It is, in part, an admission that in wartime, the US society would resemble a military style government rather than a democratic one.

The armed forces backtracked on this to be sure, when they realized that this blurring of lines could work to their disadvantage as well. In his letter reacting to NSRB document 112, A Report on Civil Defense, the acting Secretary of Defense Louis A. Johnson expressed his disagreement with the report´s suggestion "that planning for essentially military functions - air defense, auxiliary anti-aircraft, harbor and other defenses, and air patrol – should be carried out under the guidance of NSRB […]."[64] This illustrates the level of confusion that existed over what the term civil defense actually meant and how much the border between the armed forces´ responsibilities and those of civilian agencies was permeable at that time.

Nevertheless, the American citizens would have to be conditioned to accept what the Bull Report called "an authoritative system" when referring to the UK´s World War II civil defense system. Therefore, it is surprising that virtually no effort to organize these volunteer support units and no massive concerted information campaign to educate the public were undertaken. Propagating atomic war preparedness was more a matter of sporadic and loosely coordinated press releases and public speeches.

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[63] JCS 1723/1, 13.

[64] Louis A. Johnson, Letter to John R. Steelman; RG 218, Box 199, Planning for Civil Defense, Sec. 3, NARA

One example of such speech was the address before the National Fire Protection Association by Lt. Col. Barnet W. Beers, who was serving as an executive assistant to the Civil Defense Planning Office of the Secretary of Defense, had worked with the US Strategic Bombing Survey as the chief of the Civil Defense Team and would go on to serve as a civil defense liaison between the military and civilian agencies. He started with the general outline of the strategic bombing concept and how it changed the rules of war explaining that "every spot on the globe is within range of some weapon. Hence strategic areas become potential targets and all civilians become potential victims."[65]

Then he went on to describe the lessons of the last war and how the instances when civil defense failed completely shows "inadequate advance planning, advance organization logistics for civil defense, and totally inadequate and realistic preparation for organized and controlled mutual assistance."[66] The only two mentions reminding the audience of the atomic bomb, which they were supposed to face in a possible war with the USSR, were a brief notion that radiological defense was being developed and another one toward the end of the speech that the listeners had to "absorb added features of organic defense against new weapons."[67]

What he was engaging in is what civil defense historians call conventionalization, which is defined as an effort to make atomic weapons seem less dangerous than in reality "by interpreting them as very powerful conventional weapons".[68]This was a very common practice among the people within the US military establishment at that time and it could be argued that they willfully ignored the obvious revolutionary character of the new weapon. Nevertheless, it cannot be argued that they would be telling the American public something that they did not believe themselves. In their plans, a-bombs seemed to be simply a very large bombs regardless of whether they were supposed to fall on American or Russian cities.

Conventionalization, though most likely a sincere belief rather than attempt at deception of the people, served well when deflecting criticism of any civil defense effort based on the assumption that no protection was indeed possible; the argument already mentioned to have been used by the Emergency Committee of Atomic Scientists. Russell J. Hopley, Director of the Civil Defense Planning Office of Secretary of

[65] Lt. Col. Barnet W. Beers, Address before the National Fire Protection Association, May 10, 1948; RG 218, Box 199, Planning for Civil Defense of US, Sec. 1, NARA, 2.
[66] Ibid.
[67] Ibid.
[68] Oakes and Grossman, 377.

Defense and the author of the report Civil Defense for National Security, colloquially known as the Hopley Report, used it in his remarks before the First Army Advisory Committe. He said:

> Many times we have heard leaders declare that there is no defense against the atom bomb. Dr. Compton said it most recently. He added that, in fact there is no defense against any bomb.
>
> While it is true that there may not yet be any really effective defense, other than interception by air that will prevent bombs from being dropped, I´d like to outline our conception of civil defense. [...] [It] can be defined as the organization of the people to minimize the effects of enemy action.[69]

Whether one takes this argument as a self delusion or a propaganda piece, it was effective and well constructed. The Americans may not have experienced the effects of strategic bombing themselves, but that did not mean they were completely oblivious to them. Granted, they were familiarized with them in order to support their own bombing offensive rather than to face one themselves, but they knew it.

In 1943, at the height of World War II, Walt Disney Studios made an educational film *Victory Through Air Power* based on a book by major de Seversky. He was a theoretician of air power supremacy, a former fighter pilot in World War I, and a Russian émigré. His whole presentation is about the decisive role the bombers can have in the Allied war effort. The bombers can fly over enemy fortification and attack his productive capacity; they will always get through. Moreover, in this particular movie they are virtually immune to single seat fighters which they can shoot down at a whim.[70]

He calls the long range bomber the "dagger that can strike at the heart of the beast [Japan]."[71] Although no atom bombs existed at that time and their development was kept a tight secret, there even was a terrifying weapon of mass destruction in the movie. A very large bomb which would bury itself deep underground and cause an earthquake destroying large swathes of land. De Seversky warned, however, that "this is

[69] Russell J. Hopley, Remarks before the First Army Advisory Committee, May 26, 1948; RG 218, Box 199, Civil Defense Planning, Sec. 1, NARA, 4.
[70] "Victory through Air Power : Walter E Disney : Free Download, Borrow, and Streaming," Internet Archive, accessed September 17, 2020, https://archive.org/details/VictoryThroughAirPower.
[71] Ibid., 59:47

a two way proposition."[72] If enemy fighters are unable to stop American bombers from reaching their targets, the American fighters will be just as powerless. The Americans were fortunate enough to have avoided this destruction in World War II, but they would certainly not be spared this time. If Britain, Germany and Japan survived the air attacks then, the Americans could be expected to survive in the 1950s.

Conventionalization was one way of demystifying the bomb. The other, also employed by Lt. Col. Beers, could be described as demilitarization, which was achieved by explaining the civil defense activities designed to cope with the devastation of the atomic bomb through a comparison to relief efforts which happen after a natural disaster. He stressed that the Americans "are organized now for common protection. The community is the basic unit of organized protection against common dangers and minor catastrophes."[73] Facing the calamities of the atomic war supposedly differed little from facing a flood, hurricane, or an earthquake.

While conventionalization and demilitarization of the effects of the atomic bombing might seem ridiculous, the military establishment did see this as merely organizational and psychological questions. The reason why they advocated starting preparation in 1946 for something they themselves only considered possible in 1955 was that the longer the preparation the better the result. However, they did not see this as a tool to boost the support for nuclear deterrence. That is because, first of all, public approval of it was very high nonetheless, and secondly, it was not seen as the real factor preventing the Soviets from overrunning the Western Europe.

Military historian John Mueller explains in his book called *Atomic Obsession* that "there were several important war discouraging factors: the memory of World War II; the general postwar contentment of the victors; the cautious emphasis of Soviet ideology [...] on lesser kinds of violence and warfare; and the fear of escalation."[74] This analysis is obviously made with the benefit of hindsight. However, the American planners did think along the same line and judged the war highly unlikely in any case. In a report from his post in Moscow, the ambassador Walter Bedell Smith made very similar observations.[75]

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[72] Ibid., 58:07
[73] Lt. Col. Beers, 3.
[74] John E. Mueller, *Atomic Obsession* (New York: Oxford University Press, 2009).
[75] Walter Bedell Smith, Despatch no. 3008, December 23, 1948, National Security Council File, Box 8, 1949, Januar - March, 1 of 2, Truman Papers, Truman Library.

Also, the USSR was considered too weak economically to sustain the war with the United States regardless of the possible effect of American atomic bombing of the Soviet cities. Oakes and Grossman may be correct in claiming that "deterrence depended upon the Soviet conviction that the United States would respond to an attack on Western Europe with atomic weapons [...]."[76] The continuation of peace, however, did not depend solely on deterrence and the US military establishment was well aware of it. Economic power of the two superpowers played an important role as well.

The formative years of the civil defense in the United States were the years before the Soviet Union actually exploded their first atomic device in August 1949. Up until that point, Truman had rejected every proposal for an independent federal agency dedicated to preparing the nation for nuclear war. After the blast, the civil defense infrastructure that emerged was basically identical to that which had been proposed since 1946. The same can be said about the basic presumptions on which the program rested.

When the Federal Civil Defense Administration was established in December 1950, its functions, tasks and roles had already been set by the military. It was not planned to support diplomacy to avoid a war.[77] It was planned as a measure to avoid collapse of the home front during one. The notion that an atomic war with the USSR was still winnable in the conventional sense of the word might seem laughable from the perspective of the early 21st century. In fact, it started to be fanciful in 1956 and 1957 at the latest, as explained in Part III. Nevertheless, in 1948 and 1949, the military did think that it could fight and win an atomic war, albeit at a horrible cost.

[76] Oakes and Grossman, 363.
[77] It was in part but that was only a reflection of its military value. More on that in Part II

Chapter 2 - NSRB and Civilian Aspects of War Planning: Civil Defense, Industrial Dispersion, and Mobilization

Civil defense in the brief period of the US atomic monopoly was only a small part of much broader preparations for a possible war, both military and civilian. Planning of industrial dispersion and resources and manpower mobilization was a civilian counterpart to the military preparations for strategic bombing offensive against the USSR and the envisioned land campaigns of vast ground armies which needed to follow in order to win. However, substantial peace time military establishment and regimentation of the civilian life were ideas antithetical to the American traditions.

Yet, in August 1948, 70 % of those asked in an AIPO poll supported the idea that young men who had not been taken into the armed forces would be required to train for local defense or war work.[78] Furthermore, every part of the country and every professional group agreed in January 1948 Congress should pass a law on compulsory military and naval training for a year for every able-bodied young man. The support was lowest with farmers, but even they favored this scheme by a whopping 26 point margin.[79] Furthermore, it had widened to 48 percentage points by the spring of the same year.[80]

This unambiguous approval of the unprecedented intrusion of the government into the lives of ordinary citizens is mainly attributable to the unique nature of threat the Americans believed they had to face. As historian Michael Hogan argues, "the United States was more vulnerable than ever before. [It] could no longer count in friendly powers to carry the burden of battle while they prepared. Nor could they count on the great ocean barriers to ensure their security in an age [...] [of] long-range bombers, aircraft carriers, and atomic weapons [...]."[81] It was this sense of vulnerability which gave impetus to the executive branch to draw ambitious plans on civil defense, industrial dispersion, and mobilization. It also made the population more accepting of such plans. Even if that meant paying for them.

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[78] Mildred Strunk, "The Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 12, No.4 (Winter, 1948-1949), 756.
[79] Midlred Strunk, "The Quarter´s Polls" in *The Public Opinion Quarterly,* Vol. 12, No. 1 (Spring, 1948), 163.
[80] Mildred Strunk, "The Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 12, No. 3 (Autumn, 1948), 555.
[81] Michael J. Hogan, *A Cross of Iron: Harry S. Truman and the Origins of the National Security State, 1945-1954* (Cambridge: Cambridge University Press, 1998), 2.

An AIPO poll from March 1948, for example, found that majority of respondents thought the United States should increase the size of all three service branches, Army, Navy, and Air Force. This was favored by 61, 63, and 74 % of them, respectively. Despite the fact that their willingness to pay higher in taxes in order to support these increases was slightly lower, those disposed towards heavier taxation outweighed those who opposed it by substantial margins; 19, 20 and 35 percentage points respectively.[82]

More importantly, the policy planners were well aware of the broad popular support. The CIA report on the possibility of direct Soviet military action in 1948-1949, which was distributed to the NSRB as well, stated in unequivocal terms that "never before, in peacetime, [had] US opinion been so uniform on foreign policy."[83] Thus, the assumptions that the planners were afraid of any impending collapse of the US morale, is wrong. What they were mainly afraid of was not that the regular Americans had not accepted or would reject the new paradigm, but that fighting the Cold War would change the essential substance of the American polity.

It was mentioned in the previous chapter that some military planners in the Air Force considered the Soviet political system more suitable for fighting and winning a total war with atomic weapons. However, this anxiety extended to the anticipated long contest with the USSR as well. Despite the popular support the American rearmament enjoyed at that time, the President´s Air Policy Commission came to the conclusion that while keeping up in an arms race with a dictatorship was complicated for a democratic country, it could be done.[84]

Unsurprisingly, the Air Policy Commission saw the solution in extending and maintaining the Air Force. However, such apprehensions were not motivated by the security regards. Hogan writes that: "Fighting the Cold War seemed to require peacetime military and diplomatic initiatives that departed from American tradition, and this [...] led some to ask if it was worth the cost, not just in dollars and lives but in the freedoms they held deer."[85] This sentiment may have been more widespread in politics than among regular citizens, but the question lingered nonetheless.

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[82] Midlred Strunk, "The Quarter´s Polls" in *The Public Opinion Quarterly,* Vol. 12, No. 2 (Summer, 1948), 349.
[83] CIA, ORE 22-48 (Addendum), 16 September, 1948; President´s Secretary File, Box 216, Truman Papers, Truman Library, 3.
[84] Air Policy Commission, *Survival in the Air Age*; Stuart Symington Papers, Box 1, Air Policy Commission, Truman Library, 8.
[85] Hogan, *A Cross of Iron*, 1.

In his book *In the Shadow of the Garrison State* historian Aaron Friedberg explains how deeply rooted this fear of the necessity of maintaining large standing armies was in the American political thinking. Hamilton attributed the English freedoms to the fact they had not been obliged to keep their military as large as their continental rivals. Otherwise, it would, in his opinion, most likely have become subjected to the same absolutist type of government which existed in France.[86]

The key point here is that what Friedberg calls insularity had not been perceived not only as the crucial aspect of security of the nation against a foreign invasion, but more essentially as the foundation upon which the nation´s free political system and personal liberties rested. This sentiment was echoed in the aforementioned report by the Air Policy Commission, which explained that the national security in an era of modern war means not only winning the war and winning it without too much destruction incurred, but more importantly "not having our [...] civil liberties taken from us in preparing for war."[87]

Thus the inventions of long-range bomber and atomic bomb, which in the minds of the policy planners effectively eliminated the insularity the US had thus far enjoyed, did not threaten only physical destruction of the nation from without if they were ever dropped, but political destruction of the nation from within even if they never were. While the civil defense planning under the Secretary of Defense focused more on alleviating the pressure on the army in case of a war, the overarching objective of civilian planning was to ensure the US was ready to fight monsters but would not become one itself.

This, however, was not the position of the NSRB from the start. On the contrary, its first chairman, Arthur Hill proposed transforming it into an agency controlling wages and prices, allocating scarce materials and resources, and creating and financing Government corporation that would deal in materials, equipment and facilities.[88] Hill was a personal friend of the Secretary of Defense James Forrestal and former president of the Greyhound Corporation. His business instincts, however, were little suited for the governmental bureaucracy. According to Hogan, he was “a stubborn man with a prickly personality and a low tolerance for teamwork. He agreed with Forrestal that

[86] Aaron Friedberg, *In the Shadow of the Garrison State: America´s Anti-Statism and its Cold War Grand Strategy* (Princeton: Princenton University Press, 2011), 35.
[87] Air Policy Commission, *Survival in the Air Age*, 4.
[88] Friedberg, *In the Shadow of the Garrison State*, 209

mobilization planning could only work if the NSRB had more authority, and he set out to acquire that authority without regard for the interest of other agencies."[89]

His expansive approach was soundly rejected by Truman and it was never adopted. However, as was the case with compulsory military training, there was a relatively strong popular support for some measures considered wartime expediencies, such as the price controls. In January 1948, AIPO found that 59 % of those surveyed were in favor of government price control on most things and further 15 % would approve of them for basic consumer products such as meat.[90] In this regard, too, it seemed that the average Americans were willing to accept much more far reaching changes in their everyday lives than the planners were ready to impose.[91] The key factor why the public would have allowed more than what the government asked of them, is the perception of both the nature of the Soviet threat and its immediacy.

While civil defense campaign as such did not really begin until after the Soviets had acquired the atomic weapon, the sense of vulnerability was conveyed to the American public in different ways. It was not exclusive to the government officials to preach vulnerability as an impetus to higher military spending. Alexander P. de Seversky, who had starred in the Disney movie *Victory through Air Power* mentioned in the previous chapter, enjoyed somewhat of a celebrity status. Chicago Herald called him "the amazing aviation prophet of World War II."[92]

The article, which referred to his interview with the International News Service, quoted his warning that "it would be national suicide [...] to cut down on aviation expenditures [...]. Air power is our only defense [...]. [Atomic attack] might flatten some of our cities, but not our airpower."[93] It is no coincidence that Stuart Symington, then serving as the Secretary of the Air Force, kept the clipping of this article. When he defended a program of expanding the Air Force in being in March 1948 before the Senate Armed Services Committee, he expressed a very similar sentiment.

The last paragraph of his testimony before the committee encapsulates his dual vision of vulnerability and hope that the air warfare presented for the Unites States.

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[89] Hogan, *A Cross of Iron*, 212.
[90] Midlred Strunk, "The Quarter´s Polls" in *The Public Opinion Quarterly,* Vol. 12, No. 1 (Spring, 1948), 170.
[91] The Selective Service Act was passed in June 1948, but it was not as severe as the military training scheme the public was apparently ready to support. It only affected men between the ages of 19 and 26 and only a small fraction of those were actually required to undergo training.
[92] Damon Bunyon Jr, *Chicago Herald American*, February 24, 1947; Stuart Symington Papers, Box 4, Declassified Documents, Truman Library.
[93] Ibid.

> The point we should all remember is that regardless of the critical aspect of the international situation as of today, from the standpoint of our survival [...] our position will be far more critical when the Russians have the bomb; and it should be emphasized that we will not have an adequate, modern Air Force available [...] unless we start building that Air Force NOW.[94]

Nevertheless, as we have seen, the public had already come to the conclusion that expansion of all three services was necessary. Therefore, this reflects more one of the difficult political battles Hogan describes[95] than the battle for the public ear, which by that time had already been over.

Symington, for his part, most likely did believe that the USSR would initiate war as soon as their leaders felt powerful enough to do so. He expressed that much in an official and secret letter to James Webb from 1951 in which he stated that he believed "they [the Soviets] would use force, if necessary, as soon as they felt their strength was adequate."[96] That of course was the situation in 1951, which is the subject of the second part of the thesis. The question is, whether the policy makers were afraid of the immediate Soviet threat in 1948.

The answer is at least in part yes, as historian Robert Cuff describes. The shockwaves of the February Communist coup in Czechoslovakia rattled Washington D.C. and led to unprecedented defense appropriations for the fiscal year 1949 and helped pass into law the allocations for the European Recovery Program.[97] Despite this, it might have been more of an opportunity well used by the executive to overcome a political gridlock than genuine fear.

As soon as April 1948, the CIA reported to the NSC that the USSR would not initiate hostilities in that year and only might do so, if it came to the conclusion that the US itself was planning to attack.[98] This conclusion was not supported by the Director of Intelligence of the USAF, though. He only agreed that there was no indication that a

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[94] Stuart Symington, Statement for Senate Armed Services Committee, March 25, 1948; S tuart Symington Papers, Box 3, C-Congressional - General (Statements), Truman Library, 4.
[95] see Hogan, *A Cross of Iron*, Chapter 5.
[96] cited in Pondělíček, *A Fearsome Ally*, 46
[97] Robert Cuff, "Ferdinand Eberstadt, the National Security Resources Board, and the Search for Integrated Mobilization Planning, 1947-1948" in *The Public Historian*, Vol. 7, No. 4 (Autumn, 1984), 37.
[98] CIA, ORE 22-48, April 2, 1948; President´s Secretary File, Box 216, Truman Papers, Truman Library, 1.

Soviet attack was likely in the following 60 days.[99]All in all, there was a solid consensus among the national security officials and intelligence experts that the war scare was not based upon real intentions of the Kremlin.

In December 1948, the ambassador to the Soviet Union Walter Bedell Smith expressed his opinion that the scare was a campaign orchestrated by the Soviets in order to hamper Europe´s post-war rehabilitation, keep tight control of the population of the USSR and mask their own weakness. Despite his stated conviction that the Soviet Government still believed in the inevitability of an armed conflict with the West, he concluded that Moscow had chosen to weaken its own position for a few following years in order to build up strengths for such conflict.[100]

Furthermore, he advised the national security policies be reevaluated based on this assumption and the public be told about this. To him, and many others, the most dangerous aspect of the confrontation with the USSR was that it "required maintenance preparedness, firmness, unity and patience to degree and period heretofore considered beyond capacity [of] Democratic regimes."[101] Smith was not afraid that the American, and by extension the Western, morale would collapse under a direct threat.

On the contrary, he saw the Soviet war scare as at least in part beneficial to the US, because it had helped spur the support for the defense measures at home and foreign aid to Europe. He was worried that this sentiment might not last, or even worse, turn completely around, if war was not an immediate prospect. He proposed to prepare the public for a long term struggle rather than trying to exploit the present fears of an immediate war. Moreover, he considered it important to balance the dispensation of national resources in order not to harm the economy in the long run.[102]

This line of reasoning was neither new nor exceptional in Washington. James S. Lay, the executive secretary of the NSC, wrote in September 1947 that the US´ exclusive possession of atomic weapons was "the most important element affecting the relative strength of the US vis-a-vis the USSR [...]. Second only to the question of atomic bomb should come measures designed to strengthen the power of the US domestically by developing and maintaining a peaceful competitive political situation, a

[99] Comments by the The Director of Intelligence USAF and The Director of Naval Intelligence; President´s Secretary File, Box 216, Truman Papers, Truman Library, 1.
[100] Walter Bedell Smith, Dispatch no. 3008, December 23, 1948; National Security Council File, Box 8, 1949 January - March, 1 of 2, Truman Papers, Truman Library.
[101] Ibid.
[102] Ibid.

bi-partisan foreign policy, a healthy and stabilized economy, and an effective state of national preparedness "[103] Thus, the foremost consideration was to maintain the US superiority in atomic technology. However, political stability and strong economy were also seen as a vital part of the US strength.

The first chapter already elaborated on the fact that as opposed to the US the Soviet Union was considered incapable of sustaining a global war economically. This, and not the absence of the atomic bombs in its arsenal was seen as the crucial weakness. Thus, maintaining superiority in production was just as important as maintaining superiority in atomic weapons. It is ironical, though, that the same political and economic system that was assumed to have given the US the advantage in this field, was at the same time seen as less capable of the strategic patience necessary to contain the ambitious yet cautious USSR.

Therefore, apart from the considerations about the possible effect of the Cold War on American democracy, were a national security issue in its own right. Free system was superior, yet more vulnerable. If reducing these vulnerabilities resulted in the erosion of personal freedoms, it would make the system less vulnerable immediately, but weaker in the long run. Hence, the NSRB´s task was not only to prepare the economy to go to war, but to enable the economy to maintain that preparedness without losing its strength.

While the policy makers seemed to base their plans on the assumption that the USSR would not initiate war in a foreseeable future, the regular Americans seemed to be much more anxious of a looming conflict. Furthermore, the war scare of 1948 did have a discernible impact on their opinions. The National Opinion Research Center made a series of polls on the public´s expectations of war.

The percentage of those who said they anticipated the US to fight another war in the next ten years rose from 28 % percent in November 1946 to 67 % in July 1948. Furthermore, the number of people anticipating a war within the next year or two doubled from 13 % in June 1948 to 26 % in the following month. [104] It seems that the public was much more anxious about the prospect of an immediate conflict with the

[103] James S. Lay, Memorandum to Mr. Souers "Agenda for Studies for Consideration by the National Security Council; National Security Council File, Box 8, 1947 September - December, Truman Papers, Truman Library.

[104] Mildred Strunk, "The Quarter´s Polls" in in *The Public Opinion Quarterly*, Vol. 12, No.4 (Winter, 1948-1949), 766.

USSR than the policy makers were, which might help explain why it supported much more severe limitations on the Americans´ personal and economic freedoms.

This made the first task of the NSRB easier while simultaneously making the second objective harder. If an equilibrium was to be found between long term strength and short term security, the public and the planners had to base their reasoning on roughly similar assumptions. This is best evidenced when analyzing it together with other civilian, but war-related planning conducted in the NSRB in that period. The agency was given responsibility for civil defense preparations in March 1949. However, the issues of civil defense were discussed in the materials of the Board and it was informed of both the concept and the progress of the planning. The preparation for unconventional warfare was seen as critical. However, it did not encompass atomic weapons only, but also psychological, biological, chemical warfare, and even economic warfare.[105]

At times the documents also mentioned internal security together with these, which was essentially understood as protection against sabotage. The American planners had been frightened by the prospect that the effects of any attack on the US would be exacerbated by forces within threatening to disintegrate the social order.[106] Sabotage was mentioned in many documents that either originated at or addressed the NSRB. While the JCS agreed that civil defense should be planned by a civilian agency, internal security, as it was called in the documents, was "scattered among several agencies [...]."[107]

This fear of a fifth column as expressed in the Bull Report, however, did not mean that the planners anticipated the Americans would turn against their government en masse. It is an expression of their fear of communist ideological subversion. The nation had gone through similar experience with the Japanese-Americans in World War II. This time, however, there would be no clear and readily definable racial lines by which to identify potential saboteurs in advance. The Eberstadt Report did mention mobilizing spiritual resources and psychological warfare.[108] This, however, referred to a

[105] Office of Information to Members of Staff of National Security Resources Board, memorandum, December 20, 1948, page8, RG304, Box 24, NARA.
[106] Oakes and Grossman, 369.
[107] NSRB General Counsel, excerpt from the Eberstadt Report for the Members of the NSRB Staff; Steelman Papers, Box 26, December 1948, NSRB, Truman Library, 5.
[108] Eberstadt Report, 20.

scenario when hostilities are impending or have already begun and not marshalling the support for US policies beforehand.

The problem of espionage, sabotage and disunity is described in the JCS 1723/1. The document anticipated several ways in which the USSR would use its agents in the US to its benefit. They range from organizing strikes and work stoppages both before and after an attack to using chemical, biological and starting from 1955 even atomic weapons in a clandestine way against the US targets. The only subversive activities in which a considerable number of Americans would participate, would be the possible Labor Union members´ resistance to the government´s attempt at restoring order following disorder by dissident groups prior to an enemy attack. It also estimated that in the event of a war it would not be possible to locate and imprison all enemy agents successfully.[109]

The agents would include American citizens, presumably members of the Communist Party and their so-called fellow travelers. Internal security was an important part of the civil defense planning as perceived by the military. However, the NSRB as a civilian agency was not considered as the appropriate body to solve the issue. The problem of morale and unity in this regard was perceived not as an issue connected to the existence of atomic weapons. Psychological warfare was seen as a way of waging a war in its own right, rather than a result of what Oakes calls the nuclear terror. Therefore, there is little need to analyze it any further at this point.[110]

What needs to be analyzed is how the programs of mobilization, civil defense and industrial dispersion were interdependent and supporting one another. As has been observed, the primary goal of any civil defense program was to ensure the survival of the home front and thus the continuation of production. Industrial mobilization was therefore critically dependent on the efficacy of civil defense. As much as the planners were afraid of the effects of the increased defense spending on the economy in the peacetime, balancing the civilian and military needs in a war with industrial centers possibly under attack presented a much larger problem, even if very unlikely to occur.

The first thing that the NSRB could do was to plan for industrial dispersion which would physically put some industrial targets out of the harm´s way well before an attack. As Peter Galison points out, the main inspiration for this program was the allied bombing campaigns of World War II. He writes that "the bomb analysts repeated their

[109] JCS 1723/1, 19a-23.
[110] More on psychological warfare in Parts II and III.

message: Aerial warfare worked when it hit concentrated, centralized production [...]. Bombing failed when the Germans effectively dispersed their factories."[111] However, it was obviously impossible to simply recreate what the Germans had done.

While Nazi industrial dispersion was a war time measure and was conducted after the experience of the first few bombing raids, the United States would have to achieve similar results in peacetime. An atomic attack would be much deadlier and swifter, so it would mean that the dispersion would have to be accomplished in advance. Also, the Germans moved some of their industrial plants underground in order to protect them, which was not considered realistic either.[112] Since the war could come at any moment, but at the same time decades of armed peace were possible, it was simply unthinkable to move a substantial part of the US industry underground in advance.

At the same time, the program faced the same basic obstacle as the national security programs as a whole. It was simply not possible to fully prepare for a total war without turning the country into a dictatorship. The director of Industrial and Governmental Dispersion Division of the NSRB, I. D. Brent tried to reconcile the two in his speech before the American Industrial Development Council on April 5, 1949. He first tried to clarify what the overall mobilization planning would mean.

As he himself admitted, the term had been misused and misunderstood. He described two mental images that were usually associated with it; city planning and a planned economy. These had two opposite but equally serious problems; the first was not enforced strongly enough and the second one was the proper enforcement would put Americans in the positions of subjects rather than citizens. He assured his audience that the goal was to avoid the latter.[113] The United States government was to cease being an impotent city council, but not attain the same powers as the Soviet one. This was mostly to be achieved by voluntary cooperation and through incentives.

This was as much a result of the tendency to avoid government heavy handedness as sheer practicality, or rather impracticality, of substantial industrial relocation program in peacetime. Ferdinand Eberstadt acknowledged as much in his report to Arthur Hill, then president of the NSRB, in which he wrote: "While it is economically impossible adequately to disperse American industrial and population

[111] Peter Galison, War Against the Center, 12.
[112] JCS 1723/1, 19.
[113] I. D. Brent, Address before the American Industrial Development Council, April 5, 1949, page 1; Steelman Papers, Box 28, April 1949, NSRB, Truman Library.

centers against atomic or even conventional bombing attack, much can be done in regard to existing facilities and in influencing future trends."[114]

Dispersal was not to be as extreme as in case of Germany; it was not considered expedient to forcedly relocate industrial plants from region to region. Brent called this deregionalization and contrasted it with deconcentration; a type of dispersion defined as "introducing space among the urban and industrial units of the metropolitan area."[115] This would not provide complete protection, but a certain degree which would balance the immediate security and long term strength. Apart from relatively modest goals, the program in this period suffered from lack of the voluntary cooperation which was required.

As Peter Galison argues, the efforts were sporadic and inadequate during 1947 and the free market approach ended with the Soviet´s first atomic test in August 1949.[116] The development of industrial dispersion mirrored the evolution of civil defense as a whole. The national policy for industrial dispersion was instituted in August 1951, making the program not only considerably more expansive, but also launching a publicity campaign to promote it.[117] These events will be further analyzed in the Part II.

The attempts at publicizing dispersal before August 1949 may have been sporadic, but they did exist. Interestingly, Brent used virtually the same rhetorical figure of demilitarizing the program as the civil defense planners. Just as preparing for atomic attack could be advantageous when facing a natural disaster, it could help foster innovation and adaptation to market forces and changes of technology in industry.

He argued that factors like expensive land, belt line productions and changes in transportation made dispersion an economically sound policy when building a new plant.[118] He even went as far as to say that "there is tangible evidence strongly suggesting that decentralizing technological forces are of increasing importance in our won industrial pattern."[119] He devoted a bigger part of his speech to these observations. Security was mentioned several times, atomic bomb twice.

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[114] Ferdinand Eberstadt, Report to Arthur Hill, June 4, 1948, pages 52-53; President´s Secretary Files, Box 127, 127-10, NSRB Misc., Truman Papers, Truman Library.
[115] I. D. Brent, Address before the American Industrial Development Council, 3.
[116] Galison, "War Against the Center", 14.
[117] I. D. Brent, Address before the American Industrial Development Council, 6.
[118] Ibid.
[119] Ibid.

The urgency with which the program was pursued may have been lacking and the actual results in the examined period wholly unsatisfactory, but neither fact indicate that the dispersion policy was not seen as practicable and, if accomplished, effective. As mentioned, the US military planners considered that the Soviets could use as many as 50 bombs in 1955 at the earliest. This would mean they could probably only hit city centers, which would allow emergency services in a dispersed city to begin rescue work and leave the dispersed governmental offices and plants untouched.

Again, the purpose of this thesis is not to argue whether that was realistic. The civilian planners may have been suffering from the same mass self delusion as the military ones. However, they did believe what they were telling the public. In their ideal scenario, the properly prepared dispersion and civil defense would ensure preservation of as much of the industrial and manpower potential of the US as possible. Civil defense would also ensure mitigation of post-attack chaos and panic, which would then allow the potential to be mobilized in an orderly fashion.

If the planners had not believed in the efficacy of the first two programs, planning mobilization would basically have made no sense at all. But the opposite was true. Mobilization plans were discussed, written, and evaluated in all earnestness. Just as with civil defense, World War II served as the point of reference for any contemplated plans and it was acknowledged that a war with the USSR would present exigencies unprecedented in scale, but familiar in their nature.

First of all, it is necessary to describe the controversy over the Board´s responsibilities, outlined in broader terms above. While Eberstad and Hill envisioned the NSRB as an agency with executive powers, others as for example James Webb, the director of the Bureau of the Budget, saw its role as mere emergency planning organization, which is the view that eventually prevailed.[120] The result of this lack of power was that the Board again relied on voluntary cooperation as was the case with the dispersion program.

Friedberg describes this as one of the results of the business´ resistance against and the governments general disinclination for a radical increase in the powers of the federal government, which both of these programs would require.[121] This might seem to prove the point that the mobilization planning, civil defense planning included, was

[120] see Robert Cuff, "Ferdinand Eberstadt, the National Security Resources Board, and the Search for Integrated Mobilization Planning, 1947-1948, 49-50; and Aaron Friedberg, *In the Shadow of the Garrison State*, 209-212.
[121] Friedberg, *In the Shadow of the Garrison State*, 209-213.

simply a failure. However, it is necessary to understand the unprecedented nature of these programs at that time. Cuff argues that in comparison to the interwar planning and the haphazard efforts immediately before the American entry into World War II, the creation of a dedicated agency was a success.[122]

One of the critical areas that the Board was concerned with was housing. Housing presented a problem from both the military and civilian perspectives. Again drawing from experience of World War II, the NSRB reported that a place to live for 9 million migrant workers and their families had been needed during the war. Furthermore, the problem was exacerbated by the damage anticipated as a result of enemy attack. The report noted that slightly more than one third of houses in Britain had been destroyed or damaged and one third of houses in Germany had been destroyed or seriously damaged. [123] This seems an obvious overstatement in the case of the United Kingdom. The possible reason may be that while the report lists all the damaged dwellings in Britain, it only includes seriously damaged dwellings in Germany. However, since there is no source, it is hard to tell.

Several programs designed to plan for emergency had been considered and prepared by the board as part of the mobilization planning. These ranged from better utilization of existing housing, mobile and demountable emergency housing, temporary war rental housing, to occupancy control. Some of them were initiated and some remained on paper only.[124]

Attention was also given to medical personnel, supplies, and other aspects which covered both the military and civilian needs in case of a war with the USSR and an attack on American cities. There were in total eleven projects which addressed among other things war-time food and blood provisions, maintenance of water and sewage sanitation, and civil defense health services. The report by the NSRB from later 1949 claimed that work on some of those projects had advanced.[125] Given the limit responsibility, the accomplishment of the goals set in these programs was not in the hands of the Board.

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[122] Cuff, "Ferdinand Eberstadt, the National Security Resources Board, and the Search for Integrated Mobilization Planning, 1947-1948, 42.

[123] NSRB, Civilian Mobilization: Housing and Community Facilities and Services; Confidential File, Box 23, NSRB 4 of 7, Truman Papers, Truman Library.

[124] Ibid.

[125] NSRB, Civilian Mobilization: Health Resources; Confidential File, Box 23, NSRB 4 of 7, Truman Papers, Truman Library.

Nevertheless, the amount of planning is another testimony to the serious nature with which the governmental agencies approached their task. It further diminishes Oakes´ claim that civil defense rested on preconditions which it was supposed to achieve.[126] It is well nigh impossible to decide whether the industrial dispersal, mobilization planning, and civil defense as planned between 1947 and 1949 by the NSRB would have had the effect their authors intended.

It is, however, impossible to claim that these programs were just a ruse to persuade the public that it was, in fact, possible to survive and win an atomic war. Firstly, the publicity campaign was practically non-existent. On the other hand, the government was eager to trumpet its plan on international control of atomic energy through the UN (see Chapter 3). Which is something Oakes and Grossman claim it did not want the people to believe in. Despite the lack of effort to sell the image of a successful atomic war and an active attempt at promoting the international control of atomic weapons as the solution to the problem, the American people had not turned against the atom bomb as an instrument of foreign policy.

In March 1949, 59 % of respondents of an AIPO poll said that it was good that the atom bomb had been developed. Almost a half of them expressed the belief that it had made another world war less likely and only a quarter believed the opposite to be true.[127] Furthermore, as quoted in Chapter 1, almost three quarters believed in August 1949 that the US should not pledge not use the bomb first and, as quoted in Chapter 2, the support for US foreign policy was generally really high in this period.

During the formative years of the civil defense campaign in the US there was no apparent reason to use it in order to manipulate the public opinion on either international control or deterrence. Most evidence points to the fact that the plans were made in earnest and were considered practicable by those who had drawn them. Dispersal, civil defense, and mobilization were essentially a three step policy that was to ensure the US would be able to continue waging a war even after an atomic attack; something the Soviet Union was considered capable of in the same period as seen in Chapter 2.

The extent to which these programs were introduced was limited more by the general tendency to try to avoid turning the United States into a military style

[126] Oakes, "The Cold War Conception of Nuclear Reality", 361.
[127] Midlred Strunk, "The Quarter´s Polls" in *The Public Opinion Quarterly,* Vol. 13, No. 1 (Summer, 1949), 347.

dictatorship, than by doubts about feasibility of said programs. Thus, civil defense fits perfectly to the pattern of the creation of the national security state with all its limitations, inherent contradictions, and revolutionary nature. So, when the Soviets tested their first bomb in August 1949, the US had created plans, but little in terms of real structure. How these plans were put into operation is described in the Part II.

Chapter 3 - Taming the Monster: Protecting the Citizens by banning the Bomb

When president Truman discontinued the World War II civil defense program by terminating the Office of Civilian Defense on June 5, 1945, it did not cause any uproar. In fact, the most contentious discussion regarding the termination was what would happen to the equipment which had been issued to the civil defense volunteers. On one hand the United States Conference of Mayors complained that: "it [would] be very costly to store this property and [...] hardly any of the property is of the types used or needed in normal peace times which any municipality would want to purchase.“[128] The East Coast Conference of State Defense Directors, on the other hand, argues that: "the communities that are now using these fire pumps should have the first right purchase at a very reasonable figure [...]."[129] Neither of the two argued against disbanding the office. The considerations of war had already given way to the considerations of peace.

This should not be surprising, given the fact that Germany had already surrendered and Japan had lost any ability to threaten the US mainland long before, if it had ever possessed it in the first place. At the same time, the existence of the atom bomb was still a tightly kept secret and its first use in combat lay months in the future. Who will get the fire pumps and whether the volunteers would be able to keep the personal equipment they had been issued seemed to be the most pressing priority as far as civil defense program was concerned.

The two explosions over Hiroshima and Nagasaki in August changed the calculus dramatically. While the assertion that the Word War III and civil defense planning started within months of V-J Day[130] is an exaggeration, the newly acquired sense of vulnerability did emerge almost immediately. Historians Paul Boyer and Tom Engelhardt argue that: "[the nuclear era] burst upon the world with terrifying suddenness. From the earliest moments, the American people recognized that things would never be the same again."[131] The bomb and how to protect against it became an

[128] The United States Conference of Mayors, Memorandum to the President, May 29, 1945, Truman Library, HST Papers, Official File, Box 255

[129] East Coast Conference of State Defense Directors, Letter to the President, June 18, 1945, Truman Library, HST Papers, Official File, Box 255

[130] Guy Oakes, "The Cold War Conception of Nuclear Reality: Mobilizing the American Imagination for Nuclear War in the 1950s" in *International Journal of Politics, Culture, and Society*, Vol 6, No. 3 (Spring, 1993), 339.

[131] Paul Boyer and Tom Engelhardt, *By the Bomb´s Early Light: American Though and Culture at the Dawn of the Atomic Age* (Chapel Hill: University of North Carolina Press, 1994), 4.

important issue of the public discourse. The substantial public campaigns of civil defense, however, did not start until five years later and the planning itself only became a matter of importance in 1947 at the earliest with the president resisting a permanent peace time organization for the purpose until after the Soviets tested their own atomic bomb.[132]

The first attempt by the administration to provide some sense of security to the citizens in the new Atomic Age, focused not on defending against the bomb being dropped, but on preventing the bomb from being used or even developed by the enemy. The word of the day was not civil defense, but international control. As early as September 1945, Senator Brien McMahon pleaded on CBS for a system by which "[US would] strengthen collective security which is the only hope of permanent peace."[133] The discussion on a system of possible international control within the administration, however, had been going on for a while at that point.

Historian Barton J. Bernstein argues that in order to understand the American efforts to establish some international system preventing the development of atomic weapons by other countries, the analysis must start with Roosevelt.[134] Since this chapter mainly focuses on how the administration officials communicated the plans for international control of atomic weapons to the public, the phase between 1942 and 1945 is not of much importance for its thesis for the obvious reason that all of these deliberations were done in secret. Nevertheless, this chapter also intends to analyze how realistic the administration thought the possibility of reaching consensus on the issue with the Soviet Union was and how earnestly it conveyed this view to the public at large, therefore an occasional reflection on the previous period is warranted. This is not to try and decide whether and if more accommodating US position early on would have prevented the arms race with the USSR, but to see whether there was any difference in how the American officials evaluated the chances of success before and after the bomb was used and thus made public.

Arguably the most senior proponent of cooperation with the Soviet Union before the bomb was ever used was then Secretary of War Henry Stimson. In his memorandum

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[132] Harry S. Truman, Memorandum to the Chairman of the National Security Resources Board, March 5, 1949, Truman Library, HST Papers, WH Central Files, Official File, Box 1828.
[133] Brien McMahon, Address prepared for delivery over Columbia Broadcasting System, September 25, 1945, Truman Library, HST Papers, WH Central Files, Official File, Box 1681, 6.
[134] Barton J. Bernstein, "The Quest for Security: American Foreign Policy and International Control of Atomic Energy, 1942-1964" in *The Journal of American History*, Vol. 60, No. 4 (March, 1974), 1003.

to the president of September 11, 1945 he pleaded for the administration´s recognition of the revolutionary nature of the new weapon and resulting changes in the negotiating position towards the Soviets. He wrote that: "the bomb [...] constitutes merely a first step in a new control by man over the forces of nature too revolutionary and dangerous to fit into the old concepts."[135] Bernstein concludes that Stimson had been in favor of telling Stalin about the bomb before it was actually used, because the opposite could have adverse effects on the Soviet-American relations.[136] The memorandum from September, however, indicates that his relative optimism was unabated after Hiroshima and Nagasaki despite Truman´s having informed Stalin of the bomb only in the vaguest terms possible.

Nevertheless, there was still the problem with his proposal, which Stimson indirectly acknowledged in his memorandum; the problem of gaining support for what was considered a serious concession to the USSR. The Secretary of War wrote: "I would make such an approach [including the American pledge to stop manufacturing and testing the atomic bombs] just as soon as our immediate political considerations make it appropriate."[137] As it turned out, they never did.

Bernstein, Boyer and Engelhardt all agree that the international control of atomic energy never won a substantial support of either the American public or their politicians. That, as they claim, was especially true when the plan involved giving the atomic secrets to the UN or stopping the atomic weapons production. Boyer and Engelhardt argue that: "even [...] at its apogee, in short, the idea never won more than lukewarm popular support."[138] They base this assumption on the results of polls conducted by Gallup from October 1945 to June 1946 and a survey from Iowa also from the summer of 1946. Bernstein cites a survey among Congressmen from September 1945 in which "thirty-nine Republicans and thirty-seven Democrats asserted that the United States should keep [the secret], and only five Democrats favored giving it to the United Nations."[139]

When addressing the opposition from the population at large, he cites a poll in which 73 percent answered that they would not share the secret with the Security

[135] Henry L. Stimson, Memorandum to the president, September 11, 1945, Truman Library, HST Papers, President´s Secretary´s Files, Box 96, 3.
[136] Bernstein, 1013.
[137] Stimson, Memorandum to the Presidents, September 11, 1945, 5.
[138] Boyer and Engelhardt, *By the Bomb´s Early Light*, 57.
[139] Bernstein, 1020.

Council of the UN.[140] The only issue, though, is that he actually does not quote any poll so it is unclear where he got the data from. This questionable source aside, it does seem that both the American politicians and the citizens who had elected them, did not feel much inclined toward sacrificing the US atomic monopoly for the uncertain goal of producing a workable system of international control of the atomic weapon. To be more precise they did not feel in the immediate aftermath of Hiroshima and Nagasaki.

This attitude, however, began to change as more information from the two bomb stricken cities began to filter in and the realization that the US cities could be in danger too in few a years. In a poll conducted by the National Opinion Research Center (NORC) in October 1947, 78 percent of those polled agreed that the US should stop making atomic bombs even before an international control agency was established. Furthermore, 60 percent of those polled in February 1947 thought the international control of atomic energy has a very good or only fair change of working and supported the US effort to establish such a system.[141]

Sharing the information with an international agency was still not popular with the majority even when conditioned by the system controls having been agreed and set up first; only 40 percent supported it in a poll from February 1947 and 41 percent in a poll from October of the same year. Surprisingly enough, more people in both polls favored placing all the US atomic factories under the control of such agency; 51 an 55 respectively.[142] This testifies to how much, or how little, the people actually understood the complexities of both the atomic energy and the newly established UN. Nevertheless, this organization did enjoy relatively widespread support among the US public according to an earlier poll by Gallup, in which 54 percent out of the 3110 asked agreed with making the UN into a world government and giving it control over the armed forces of all nations, including the US.[143]

Furthermore, some polls suggest that most Americans were supportive of the United Nations in general and a significant minority of them was even favoring the UN being transformed into a world government even later, when the efforts to control atomic energy had stalled. Fortune poll from February, 1948 found that 55 % of those asked thought the United States should rely on the UN and do all in its power to make it

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[140] Ibid.
[141] Midlred Strunk, "Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 12, No. 1 (Spring, 1948), 147.
[142] Ibid.
[143] Gallup Poll #375, question 2, July 25, 1946.
<https://institution.gallup.com/documents/questionnaire.aspx?STUDY=AIPO0375>

functional while additional 20 % wanted the administration to take steps towards forming a world government. Taking into account the 4 % of those polled who favored one of the two, but were unable to decide which one, close to four fifths of respondents supported the newly established international organization.[144] These results indicate that while there was little consensus on what and when the US should concede, there was a relatively strong support for the effort to avoid the atomic arms race by investing the UN with some trust and a lot of power.

This, as we will see, was partly due to the Truman administration´s effort to promote the idea of an international body and an arms control system being the guarantee of the security of the United States. In some cases this idea survived until the Soviet atomic test proved, in a very dramatic way, the ultimate failure of the endeavor to avoid the atomic arms race. Sociologist Arhur J. Vidich describes the psychological effect with the following words: "With an uncomfortable suddenness, military strategists could no longer think of and American land mass as a safe sanctuary from which wars could be fought elsewhere."[145] That is true only in part; the American planners had always expected this development, albeit at a later date.

Several weeks had passed since the surrender of Japan and close to two months from the first use of the atomic bomb when the Truman administration discussed the issue of how long the US monopoly on the atomic secret would last and whether it was better to share it on their own accord to avoid the arms race. During a cabinet meeting on September 21, 1945, Vannevar Bush, the head of the Office of Scientific Research and Development claimed that the Soviets could perfect the atomic bomb technology in five years.[146] A year later, similar estimate was reported by the Central Intelligence Group, which placed the most likely end to the monopoly between 1950 and 1953.[147] In a memorandum for the president of July 6, 1948, the CIG then clarified that mid-1950

[144] Mildred Strunk, "The Quarter´s Polls" in *The Public Opinion Qaurterly*, vol. 12, no. 2 (Summer, 1948), 370.
[145] Arthur J. Vidich, "Atomic Bombs and American Democray" in *International Journal of Politics, Culture, and Society*, Vol. 8, No. 3. (Spring, 1995), 499.
[146] White House, Minutes of a Cabinet Meeting of September 21, 1945, Truman Library, HST Papers, President´s Secretary´s Files, Box 174.
[147] Central Intelligence Group, ORE 3/1, Soviet Capabilities for the Development and Production of Certain Types of Weapons and Equipment,October 31, 1946, Truman Library, HST Papers, President´s Secretary´s Files, Box 216.

was "the earliest date by which it is remotely possible that the USSR may have completed its first atomic bomb [...]."[148]

Even though this remote possibility became a chilling reality one year before it was thought feasible, the changed nature of the strategic position of the US vis-á-vis the USSR was in itself not a shock to the American strategists. Neither was it a shock to the American public, which had also expected the monopoly to be temporary. If anything, the ordinary people were even more pessimistic about when some other country might develop an atomic bomb. Based on a Gallup poll from 1946, Boyer and Engelhardt claim that a strong majority agreed with the assumption the period of US exclusive possession of it would be short-lived and almost four fifths of those who gave an estimate of when exactly it would end said five years or less. Moreover, almost two thirds thought there was a real danger the bombs would one day fall on American cities.[149]

Therefore, it is clear that both the policy makers and the public had already been preparing for the moment the Soviets would test their nuclear weapon for years when it really came in 1949. The obvious question, then, is if Vidich and Oakes argue that the Civil Defense program was mainly an effort to placate the atomic terror of the American people, why it had not started much earlier. One possible answer is that the administration managed the fears and expectations of the populace in a different way and the civilian defense planning was done mostly without the public´s interest and with real military and strategic purpose. Hence, it is important to analyze the campaign and publicity around the Lilienthal Report and Baruch´s Plan on international control of atomic energy before venturing to the civil defense proper.

It is important to realize that the early efforts to establish a control system for the use of atomic energy occurred at the time when many were still optimistic about the prospects of peace-time cooperation with the Soviets. The Acheson-Lillienthal Report on the issue was released in March 1946, roughly the same time the Soviets failed to withdraw their troops from Iran as mandated. Historian Vladislav Zubok argues that "[...]American public opinion became galvanized by the ‘the Iranian crisis‘ [...]."and he

[148] Central Intelligence Group, Memorandum for the President, July 6, 1948,Truman Library, HST Papers, National Security Council File, Box 2.
[149] Boyer, Engelhardt, *By the Bomb´s Early Light*, 23.

also notes that the conflict coincided with an "anti-Soviet shift in the U.S. foreign policy and military circles [...]."[150] The optimistic mood, however, did not dissipate instantly.

When the United Nations Atomic Energy Commission met for the first time in June, 1946, the reaction of the American media was "overwhelmingly enthusiastic."[151] The New York Times, published a column which followed the reasoning and language of the official American position very closely. It read:

> What we, who have the bomb, are willing to do we ask other nations, not yet possessed of all the secrets, to do. For the sake of the general safety we sacrifice what in strict military terms is a vast though temporary asset. [...] we do not believe the basic principles of the Baruch-Acheson-Lilienthal plan can be challenged by anyone who is willing to sacrifice some nonessential elements of sovereignty in order to avoid the atomic war.[152]

This clearly and closely follows the logic of the American position while completely overlooking the concerns the Soviets understandably had, thus, painting a much more optimistic picture of the possibility of reaching an agreement.

Bernard Baruch was himself guilty of raising unjustified hopes as evidenced, for example, in his resignation letter of January 1, 1947, which was also published by the New York Times. In it, he declared that: "the original principles of the United States delegation have been tested and the outcome shows them to be sound."[153] The newspaper also printed the replies by the president and the Secretary of State James F. Byrnes, both also quite optimistic.

The coverage provided by the NY Times was not exceptional. Public Attitudes Branch of the Division of Public Liaison of the Department of State compiled published comments on the Acheson-Lilienthal Committee Report, which served as the basis of the US proposal to the UNAEC. It´s report concludes that: "the weight of opinion is

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[150] V. M. Zubok, *A Failed Empire the Soviet Union in the Cold War from Stalin to Gorbachev* (Chapel Hill: University of North Carolina Press, 2007), 43.

[151] Boyer, Engelhardt, *By the Bomb´s Early Light*, 54.

[152] The New York Times, June 15, 1946, 20.

[153] The New York Times, January 5, 1947, 27.

heavily in favor of the [...] report."[154] There were only six negative comments compared to thirty eight positive ones, which included periodicals such as Newsweek, Time, and Life and newspapers such as Boston Herald, Chicago Daily News and Dallas News.[155] The media responded to the original plan well and the mood was still optimistic when the matter was, still opposed by the Soviets, presented to the Security Council.

If the government officials sound too optimistic, it is because, with the benefit of the hindsight, they really were and not because they would be intentionally lying to the public. The Civil Defense Board of the War Department stated in its confidential report from February 1947 that: "it may be expected that international agreements and organizations for the maintenance of peace will grow in effectiveness with time."[156] This sentiment does not significantly differ from the one expressed by the officials publically. Thus, it is hard to argue that the optimistic tone at the time was primarily motivated by the intentional effort to bolster the confidence of the public in the international control of the atomic energy.

In fact, long after the hopes for any Soviet cooperation on the issue had been dashed, some official and secret documents expressed the desire and faint sense of belief that some kind of arrangement might be possible in the future. Two years later, in February, 1949 — slightly more than a year before the US planners had expected the Soviet could possibly test their atomic bomb and six months before they actually did — a draft of a secret report on Atomic Energy Policy stated:

> The U.S. is convinced that the greatest possible security in this [atomic] field can be obtained by establishing a universal, effective, enforceable system of international control as outlined in considerable detail in the First and Second Report of the UNAEC. This conclusion is still valid, and the U.S. Government must always stand ready to move ahead with such a plan whenever there is a real indication that the USSR is genuinely

[154] Public Attittudes Branch, Division of Public Liaison, Department of State, Published Comments on the Acheson Committee Report on the International Control of Atomic Energy, Truman Library, HST Papers, WH Central Files, Official File, Box 1682.
[155] Ibid.
[156] Civil Defense Board, Report of the War Department Civil Defense Board to the Chief of Staff, February 1947, NARA (dohledat RG a Box!!!)

> willing to accept and *participate in* [handwritten comment] such a control plan.[157]

This report was not intended for release, so it does seem to point to the conclusion that there still was the idea the agreement based on the original American proposal was, even if remotely, possible.

The rhetoric of this paragraph strongly resembles the information the government had given to the public earlier. When the third report of the UNAEC was to be published, the State Department prepared the following statement for Truman:

> The United States Government believes that the United Nations must face the grave impasse resulting from the failure of the Soviet Union to accept the essential basis for a system of control. The international control of atomic energy is still a paramount problem of humanity. The United States offer to participate in genuinely effective control still stands.[158]

It is not the purpose of this dissertation to argue the merits and flaws of the American plan, but the evidence seem to indicate that the US government, or at least the people from the Atomic Energy Commission, did consider their plan sound and the only plausible explanation for the Soviet refusal to accept to be their determination to end the American monopoly on atomic weapons not through negotiations, but with their own bomb. It also clearly shows that the international control was seen as a way of protecting the Americans from the horrors of the atomic war.

It may be surprising to learn how strongly held this belief was given the fact that the Jams S. Lay Jr., a CIA operative with the National Security Council, had concluded in 1947 that "Soviet policy is designed to obstruct consummation of any effective international control system, meanwhile attempting [...] to develop and put into mass production its own atomic bomb."[159] This position was supported by the logic stemming from the American perception of the utility of the atomic bomb to the Soviets. While they had the obvious advantage in standing conventional forces, the US industrial potential made this a fleeting bonus in a global war. Before they obtained the atomic

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[157] R. Gordon Arneson, Draft of Atomic Energy Policy, February 17, 1949, Harry Truman Library, HST Papers, National Security File, Box 12

[158] Joseph W. Reap, Memorandum to the Press Office, White House, Proposed Press Statement, May 12, 1948, Truman Library, HST Papers, WH Central File, Confidential File, Box 4.

[159] James S. Lay Jr., Memorandum to Mr. Souers, Agenda for Studies for Consideration by the National Security Council, Septemeber 10, 1947, Harry Truman Library, National Security File, Box 8.

bomb themselves they would have nothing to reduce this dormant strategic power of the US.[160] Therefore, CIA concluded that the Soviet willingness to start a war will be influenced by the progress of their atomic program.[161]

Moreover, the first Soviet atomic test coincided with a series of perceived and real crises which seemed to prove the inexorable expansionism of communism and the willingness of communists to wage a war to reach their goals. These include the Berlin Blockade, situation in Turkey and Greece, the fears of a war in Europe following the Tito-Stalin split, the loss of China, and most importantly the invasion of South Korea by its communist northern neighbor. Since these events represent an individual instances of the same evolutionary pressure on the American military policy, and by extension the civil defense policy, it stands to reason to analyze them together despite the fact that the last one chronologically belongs into the second part of the dissertation.

The American public needed little encouragement to fear a war with the USSR even prior to these crises, to be sure. The number of people who believed US would find itself in another war in ten years grew from 49 % to 54 % between March 1946 and March 1948 and 70 % of those who expected a war said the Soviets would be responsible for starting it.[162] At the same time, the number of people who thought the American policy towards the USSR was not reasonable rose from 32 % to 52 % between October 1947 and June 1948 and a only about 12 % of those claimed the US were too unfriendly towards Russia or should try and reach a settlement. This sentiment may be more surprising given the fact that 52 % of respondents of a NORC July 1948 poll believed sending military aid to Greece and Turkey would increase the likelihood of a war with the Soviet Union. Furthermore, 80 % of those asked in and AIPO poll of July, 1948 said the US should stay in Berlin even if it meant war with the USSR.[163]

The intelligence received by the NSC reflected the change of international situation caused by these events but considered it to be only a slight one. The secret CIA report ORE 22-48 named both the Tito-Stalin split and the ongoing Berlin Blockade as factors increasing the chances for a conflict, but the overall increase was considered

[160] CIA, ORE 60-48, Draft of Threats to the Security of the United States, September 3, 1948, Harry Truman Library, National Security File, Box 4, 6.
[161] CIA, Memorandum for the Executive Secretary, NSC, Atomic Energy Program of the USSR, April 20, 1949, Harry Truman Library,
[162] Mildred Strunk, "The Quarter´s Polls" in *The Public Opinion Quarterly*, vol. 12, no. 2 (Summer, 1948), 359-360.
[163] Mildred Strunk, "The Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 12, No. 3 (Autumn, 1948), 549-555.

slight.[164] The Director of Intelligence of the USAF, however, concluded that "the developments of the next two months in Germany, Italy, Greece, and/or China may well provide indications as to a course of future action, which might include war within the year."[165]

The loss of China in the following year represented a shock that reverberated throughout the United States´ politics, military planning, and public discourse. It was turned into a partisan issue used by the Republicans to attack the Truman administration.[166] It served as an important impetus for a conventional military buildup culminating in the adoption of the NSC 68.[167] It also lead to a sense of resignation among the American People. In an AIPO poll of September, 1949, 36 % of respondents answered that there was nothing the US could do to stop China from going communist and further 45 % said they did not know what could be done to stop that.[168] Most importantly, the shock from the revolution in China was compounded barely a year later by the eruption of hostilities in Korea.

War in Korea served as an important milestone for both the military and public debate on atomic weapons and their use in war, which became the issue of a very public controversy when Truman himself remarked that he would be willing to use all weapons in the American aresenal. Political scientist Nina Tannenwald sees this conflict as the moment when the nuclear weapons became "taboo" and she also points out that this outcome was caused partly by moral restraint, partly by the Stated Department´s fear of the reaction of the international public and partly by the fact that the conflict was ultimately solved in a conventional way. While Tuman was unwilling to give the order, which would have caused deaths of millions of people, Eisenhower was more open to using the atomic weapons as any other weapon in the US arsenal.[169]

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[164] CIA, ORE 22-48 (Addendum), 16 September, 1948; President´s Secretary File, Box 216, Truman Papers, Truman Library, 2-4.
[165] Comments by the The Director of Intelligence USAF and The Director of Naval Intelligence; President´s Secretary File, Box 216, Truman Papers, Truman Library, 1.
[166] Peter Trubowitz and Jungkun Seo "The China Card and American Politics: The Domestic Sources of US Policy toward China" *Conference Papers -- American Political Science Association* [online]. 2007, 12-16.
[167] https://history.state.gov/milestones/1945-1952/NSC68
[168] Midlred Strunk, "Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 13, No. 4 (Winter, 1949-1950), 721-722.
[169] Nina Tannenwald, "The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use" in *International Organization*, Vol. 53, No. 3 (Summer, 1999), pp. 443-449.

The public opinion in the United States was relatively evenly split between those favoring the use of atomic weapons and those opposing it.[170] Most of those who supported the proposition would probably agree with Albert Gore sr. a member of the House of Representatives for Tennessee who called Korea "a meat grinder of American manhood."[171] The unwillingness to sacrifice young Americans when atomic bomb seemingly promised a quick resolution to the war was a sentiment often expressed in the letters and telegrams president Truman received on the issue. Many did not mince words about it. A.S. Foulger, vice-president of the Lion Coal Corporation, wrote: "I lost a son in the last war and had we held off dropping the A-Bomb in Japan for another week, would in all probabilities have lost another. At the time the bomb was dropped, he was three days away from Japan [...]. His life is worth more to me than all the coyotes in human form in all Euro-Asia."[172] Frank E. Howe from Michigan even claimed that the reason Truman had refused to use the atomic bomb was that he didn´t have "a son their [sic] in Korea."[173]

Americans were clearly more open to using the atomic weapons than the public in the rest of the world. Many worried more about the lives of the troops overseas than they did about their own in case war would escalate and it is quite clear they understood that escalation could bring the Soviet Union into the fray. Most even suspected that this had been the Soviet plan from the beginning; 79 % of those asked by AIPO in February, 1951 concurred with the statement that the USSR wants the US to start a war with China, because it would increase the Soviets´ chances of winning in Europe.[174]

This series of events together with the Soviet possession of the atomic bomb created new impetus for the development of the civil defense as a part of the US military strategy. Firstly, it increased the likelihood of a war with the USSR both in the eyes of the public and the planners, albeit to different degrees. Secondly, it made an atomic attack on the United States at least a theoretical possibility. Last but not least, the

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[170] https://smallwarsjournal.com/jrnl/art/nuclear-weapons-and-the-korean-war-a-precarious-beginning-for-the-tradition-of-non-use#_edn11

[171] Albert Gore, sr. "Letter to Harry Truman, April 14, 1951," Truman Library, HST Papers, Official File OF 692-A Misc. (May-Dec, 1946), Box 1687, Favoring the Use of Atomic Bomb in Korea Emergency (Pro) A-Z

[172] A.S. Foulger, "Letter to Harry Truman, December 18, 1950" Truman Library, HST Papers, Official File OF 692-A Misc. (May-Dec, 1946), Box 1687, Favoring the Use of Atomic Bomb in Korea Emergency (Pro) A-Z

[173] Frank E. Howe, "Letter to Harry Truman, December 12, 1950" Truman Library, HST Papers, Official File OF 692-A Misc. (May-Dec, 1946), Box 1687, Favoring the Use of Atomic Bomb in Korea Emergency (Pro) A-Z

[174] Mildred Strunk, "The Quarter´s Polls" in *The Public Opinion Quarterly*, vol. 15, no. 2 (Summer, 1951), 399.

American public´s demand for stricter policy towards the communists combined with its relatively high willingness to fight or at least risk a nuclear war forced the administration to demonstrate to the public that plans for such eventuality had been or were being prepared. This evolutionary pressure from within and without is the main reason why international control was no longer a useful tool for public campaigns and the civil defense planning was much more advertized after 1950.

PART II 1949-1953

Chapter 4 - With an Umbrella into a Hurricane: The Question of Adequacy

The first Soviet atomic test in 1949 gave the planning for civil defense a sense of urgency[175], but it did not change the underlying considerations much. From 1949 until 1953, the thinking on how to reduce American vulnerability to atomic bombing, as the official documents labeled it, continued along the lines which had been contoured between 1945 and 1949. The question whether defense measures planned according to such assumptions would have been effective and, more importantly, whether the planners themselves believed it would have, is at the center of analyses of the civil defense programs.

It is not the purpose of this chapter to provide an answer to the first question, though it will have to address the issue on several occasions. The obvious problem in such evaluation, however, is that answering it based on available primary sources would require assuming that a nuclear exchange with the USSR would have proceeded according to the way the American planners had envisioned it would. Therefore, focusing on how realistic a concept civil defense was seen to be rather than how realistic it really was, provides much more solid foundation for historical analysis.

Nevertheless, providing a clear yes or no answer to the question whether the planners really believed surviving a nuclear war was possible, is not a straightforward task either. Works elaborating on the issue often suffer from inappropriate chronology of events and at times even misrepresentation of the sources used. Dee Garrison´s book *Bracing for Armageddon: Why Civil Defense Never Worked* can be used as an example of both.

In the introduction the author explains that the prologue of the book describes the destruction caused by a one-megaton warhead, because "all of the issues [...] cannot be understood or properly judged without this essential knowledge of the result of nuclear war."[176] While it is true that the first test of a megaton range weapon, Ivy Mike in 1952, did cause a reevaluation of the civil defense assumptions, such information had no effect on planning from 1949 to 1953.

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[175] Laura McEnaney, *Civil Defense Begins at Home: Militarization Meets Everyday Life in the Fifties* (Princeton, NJ: Princeton University Press, 2000), 14.

[176] Dee Garrison, *Bracing for Armageddon: Why Civil Defense Never Worked* (Oxford: Oxford University Press, 2006), 14.

This position can be attributed to the line of reasoning that since more powerful weapons were always to be expected and thus no protection was possible in the long term.[177] There are some sources which support the conclusion that at least some people in the government were afraid of this. However, as we shall see later, this school of thought was rather marginal and the conclusions about certain aspects of nuclear warfare as expressed by certain figures at the time were often self-serving. As historian Laura McEnaney rightly claims: "There is no easy answer to the question of 'who knew what and when?' Nuclear weaponry developed rapidly throughout the decade changing estimates of its dangers with it."[178] That is exactly why a more detailed analysis, which this chapter strives to provide, is essential.

While some disagreements about the planners' position on civil defense´s efficacy stem from different interpretation of analyses of weapon effects, thus being a subject of a legitimate historical debate, some are based on misrepresented sources. When writing about a psychologist Irving L. Janis´s article *Psychological Problems of A-bomb Defense*, Dee Garrisson claims: "His analysis is straightforward in understanding private shelters will not save many lives. The real objective of a private shelter program was to provide the public not with security, but with the illusion of security."[179] In reality, Dr Janis wrote the exact opposite of that. He did acknowledge that citizen built shelters could not offer complete protection, but also added that "in an atomic disaster, tens of thousands of lives might be saved even by shelters which are only partially effective."[180]

In order to answer the question whether the civil defense was seen as practicable by the government officials who planned it, it is first necessary to find answers to the following subsidiary questions. First, in what way (i.e. with what strategic purpose) did the planners anticipate atomic bombs would be used against the US? Second, how many bombs did they expect the Soviets to be able to drop on the US and how powerful they were? And last but not least, since civil defense was always intended to work only as a part of a more complex national defense system (e.g. military and industrial mobilization planning, military air defense), what kind of protection was it expected to provide given its role in the overall war planning?

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[177] see Chapter 2
[178] McEnaney, 29.
[179] Garrison, 50.
[180] Janis, "Psychological Problems of A-bomb Defense," in *Bulletin of Atomic Scientists*, 6:8-9, 262

This chapter mostly focuses on the period between 1949 and 1953. Nevertheless, it is concerned with the question of adequacy and the first document casting serious doubt on the whole concept of the so-called passive defense measures predates the Soviet atomic test. It is the Joint Chiefs of Staff´s Evaluation Board assessment of the results of the Operation Crossroads, the first post-war atomic bomb tests conducted by the US. It states that while some protective measures are practicable for small installations of military importance, they can hardly be applied in case of factories or whole cities.[181] However, this conclusion was used to support the first strike strategy arguing that since extensive damage was not preventable once the enemy bombers took off, an enemy had to be stopped before that.[182]

Such strategy would entail giving the military authority over the bomb, which was something president Truman was not willing to do.[183] It was partly because international control of atomic energy was still considered to be a better option than a nuclear stand-off[184] and partly because the president understood how different an atomic bomb was from conventional weapons.[185] With the alternative first strike being ruled out and the hopes of international control of nuclear weapons quickly fading away, civil defense was accepted as the only viable alternative. It was recognized that it was not possible to ensure personal survival. It was concluded it was possible to achieve a national survival, though.

Military strategy at that time, while centered around the use of atomic bombs, did not consider a nuclear strike as the end of hostilities.[186] This assumption that a nuclear exchange would be followed by a gigantic clash of conventional forces in which the US would ultimately prevail thanks to its superior industrial potential did not change when the Soviets tested their bomb earlier than it had been anticipated.[187] This was, in part because the end of their atomic monopoly represented a symbolic rather than real

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[181] "The Evaluation of Atom Bomb as a Military Weapon by JCS Evaluation Board," June 30, 1947, p. 25 in 176-12, Atomic Testing, Crossroads, Box 176, President´s Secretary´s Files, HST Papers, Harry S. Truman Presidential Library

[182] Ibid.

[183] Entry from Daivd Lilienthal Diary, "Meeting with the President July 21, 1948," p. 3-4 accessed September 16, 2020 <https://nsarchive.gwu.edu/dc.html?doc=6895249-National-Security-Archive-Doc-01-Entry-from>

[184] see Chapter 1

[185] Entry from Daivd Lilienthal Diary, "Meeting with the President July 21, 1948," 4

[186] see Steven Steven T. Ross, *American War Plans, 1945-1950* (London: Cass, 1996)

[187] "CIA Comments in Air Force Study No. 221," undated, p.1 in CIA Comments on Air Force Study no. 221, 1949, Box 12, National Security File, Harry S. Truman Presidential Library.

change in the strategic situation. That is why it caused much more headache to American diplomats than to military strategists.[188]

The Soviet atomic test presented a psychological shock without changing the real balance of power much in the immediate aftermath. The two most important factors hampering the USSR´s potential to use the bomb against the US successfully were its limited stockpile and means of delivery. In its estimate of the effect of the Soviet possession of the atom bomb, CIA surmised that it was not enough for the Soviets to be able to drop a few bombs, but that they would deliberately resort to waging war on the US only if they reached a position of overall military superiority (i.e. conventional and atomic forces, and industrial potential).[189]

The document still does not take into consideration any effects of US active or passive defense. It disregards the former, because no estimate as to how many bombs and bombers the USSR would need to deliver a specific number of bombs on targets against possible US air defenses had not been made. The latter was virtually non-existent at the time.[190] Since active defense would become a crucial part of the US planners´ hopes of winning a nuclear war (see Chapter 8), the apparent neglect can be surprising. The FCDA did not calculate with the effects of US air defenses, assuming enough bombers would be able to penetrate them anyway. Furthermore, it worked to undermine the existing public faith in it (see Chapter 6). Given the information and estimates available to the planners, it seems logical.

The reasons were mostly practical and doctrinal. Prior to the passage of the National Security Act of 1947, creating a comprehensive military policy was almost unthinkable. Since the air defense of the US territory was not a significant concern in World War II, simple continuation of the established policies meant it remained something of an afterthought. Moreover, this approach continued even after 1947. The USAF rationalized the experience of its predecessor in World War II as a validation of strategic bombing as the best possible use of air power. While logic may dictate that recognition of such significance of strategic bombing would lead the Air Force leaders to conclude that defending against enemy´s strategic bombers was as important, this conclusion was not drawn. Historians Walter E. Todd and Joseph T. Jockel see this as a

[188] McEnany, 13.
[189] "Estimates of the Effects of the Soviet Possession of the Atomic Bomb upon the Security of the United States and upon the Probabilities of Direct Soviet Military Action," ORE 91-49, CIA, April 6, 1950, p. 23, Box 218, President's Secretary's Files, HST Papers, Harry S. Truman Presidential Library
[190] Ibid.

result of the fact that USAAF was on the offensive in World War II and this led to offensive mentality among the USAF staff.[191]

Consequently, the emerging Continental Defense system planned by the Continental United States Defense Planning Group established in 1948 was conceived and introduced in a piecemeal manner. The air defenses were thoroughly unprepared for their intended mission; they did not have enough appropriately placed radar stations, interceptors of adequate performance, and ground antiaircraft guns or missiles suitable for the job. The situation was so bad that early in 1953 the Joint Chiefs of Staff estimated 65 to 85 % of the bombs the Soviets would try to drop on the US could not be stopped. Furthermore, the US had virtually nothing to deal with an attack of low flying enemy aircraft.[192]

The military had a very pessimistic view as to the number of bombs the US defenses could prevent from hitting American cities. However, the literature on civil defense purports that it had a very optimistic view on the power of the bombs the Soviet would drop on the targets in the US. McEnaney claims that the research into the weapon´s effect for the purposes of civil defense based on test did not provide information which could be utilized "because they were almost always done with smaller bombs than would have been used in an actual war."[193] This, however, is not true for the period in question.

While higher yield bombs were tested at that time, this does not necessarily mean they would have been ready for military use. Furthermore, the US intelligence estimated the total potential Soviet stockpile of weapons at any given moment in terms of a total yield rather than trying to estimate the number of bombs taking into account the yields of bombs in the Soviet arsenal. That was simply because it was impossible to estimate this with any precision. In an estimate on the status of the Soviet atomic program submitted in the summer of 1950, CIA concludes that the most likely nuclear weapon available for operational use by the USSR would have yield of about the Nagasaki bomb.[194]

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[191] Joseph T. Jockel, "The Canada-United States Military Co-operation Committee and Continental Air Defence, 1946" in *The Canadian Historical Review*, Vol. 64, No. 3, 2016, 354-355.

[192] Robert J. Watson, *History of the Joint Chiefs of Staff, Volume V, The Joint Chiefs of Staff and National Policy 1953* – 1954 (Washington DC: Office of Joint History Office of the Chairman of the Joint Chiefs of Staff, 1998) 111-115.

[193] McEnany, 29.

[194] "Status of the Soviet Atomic Energy Program," CIA, 4 July, 1950, p. 1, Atomic Energy, CIA, President's Secretary's Files, HST Papers, Harry S. Truman Presidential Library

Therefore, the Nagasaki bomb was used as a yardstick and the Soviets were though capable of producing between 70 and 135 of bombs of said power by mid 1953.[195] The first thermonuclear weapon could theoretically be tested in 1951, but devoting resources to their manufacture would slow the production of fission weapons. Since the CIA supposed that the development of the H-bomb was considered secondary to expedient production of A-bombs, it can be said that the American planners did not expect to have to face the Soviet hydrogen bomb before the late 1950s.[196]

In the summer of 1951, Deputy Administrator of the FCDA James A. Wadsworth inquired the Secretary of Defense as to what number of bombs and their yield the civil defense planning should be based upon. JCS recommended the Secretary to reply that it was reasonable to assume that significant portion of the Soviet stockpile would be used against targets in the continental US and that that the bombs yield will be about 40 kilotons.[197]

In 1952, CIA reported the probable Soviet stockpile to be 50 bombs ranging from 30 to 100 kilotons in yield.[198] A year later, CIA amended this estimate by stating that the Soviet atomic program may have reached a status in which fission bombs with the yield between 200 and 500 kilotons could be produced. It should be noted, though, that these estimates had very significant margin of error and this was generally acknowledged by the CIA. The specific number of Soviet bombs in this estimate is still redacted, but given the uncertainty, the intelligence analysts noted the number in 1952 could have been a third less or more than the figure stated. Future estimates varied even more widely from two thirds to twice as many bombs available. Nevertheless, larger individual yield would still mean fewer Soviet bombs. Thus, the estimate of the total devastation the Soviets could cause did not change.[199]

Naturally, even this level of destruction would be unprecedented and catastrophic, but the planners did not think it would necessarily be decisive. There was

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[195] "Estimates of the Effects of the Soviet Possession of the Atomic Bomb upon the Security of the United States and upon the Probabilities of Direct Soviet Military Action," ORE 91-49, CIA, April 6, 1950, p. 11

[196] "Status of the Soviet Atomic Energy Program," CIA, 4 July, 1950, p. 1

[197] "Memorandum for the Secretary of Defense", J.J. Wasworth, 14 June, 1951, Planning for Civil Defense in the US, Sec. 5, Box 200, RG 218, NARA; "Memorandum for the Secretary of Defense", Omar N. Bradely, 17 July, 1951, Planning for Civil Defense in the US, Sec. 5, Box 200, RG 218, NARA

[198] "Appendices to NIE-64 (Part 1): Soviet Bloc Capabilities Through Mid-1953," CIA, 24 December 1952, p. 8, Box 215, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library

[199] "Summary of the Status of the Soviet Atomic Energy Program," NSIE-A1, CIA, 8 January, 1953, p. 2, National Scientific Intelligence Estimate, Box 4, NSC File, Staff Members and Office File, Harry S. Truman Presidential Library

only one exception to this and that was the Air Force. Other branches, their respective intelligence offices and the CIA all subscribed to the theory that the atomic bombs would significantly enhance the power of strategic bombing, but they would not do so to the extent which would make it the decisive campaign.[200]

Estimating the effects of atomic bombing was fraught with uncertainties. When considering one´s own offensive capabilities, they had to be evaluated against unknown or little known targets and defenses both active and passive. When considering one´s vulnerability, it had to be assessed against an attack of unknown scale. Thus, for the purposes of planning, the overall scale of the attack the Soviets would be able to mount against the targets in the US was much more important that the yield of individual bombs.

The words all-out attack are somewhat misleading when applied to the anticipated Soviet atomic offensive in the early 1950s. This is not to say that the casualties would not have been horrendous, or devastation widespread. Nevertheless, given the absence of hydrogen bombs in their arsenal consisting of a limited number of fission bombs, they were able to completely destroy too few cities or damage many cities too little to win the war. At least that was the assumption civil defense and by extension all defense planning was based upon.

When considering the effects of the Soviet atomic bombardment, the CIA distinguished between a crippling attack and a decisive one. The former would require from 10 to 125 bombs of the Nagasaki yield delivered on the appropriate targets in the US. Approximately 200 bombs dropped on US cities might actually mean the United States would not be able to continue fighting.[201] All would naturally entail horrifying loss of life ranging in millions. NSRB estimated in 1950 that 100 bombs could be dropped on the US mainland with 30,000 killed per bomb.[202] Victory, in the traditional meaning of the word, in such war was considered unimaginably costly, but not impossible.

Civil defense, or passive defense measures as it was often referred to in the official documents at the time, may seem a foolish idea in the face of such widespread devastation. It is important to remember, it was supposed to reduce vulnerability and not

[200] Ross, 153-154.
[201] "Estimates of the Effects of the Soviet Possession of the Atomic Bomb upon the Security of the United States and upon the Probabilities of Direct Soviet Military Action," ORE 91-49, CIA, April 6, 1950, p. 11
[202] NSC68, Annex. 3 "The Civilian Defense Program", p. 1, 68, Box 9, RG 273, Entry 1, NARA

offer complete protection. By reducing the damage it would increase the amount of bombs needed to be delivered on targets in order to achieve a knock-out attack.[203] It was planned to allow the US to survive the initial Soviet blow in 1954; the earliest time the USSR was estimated to have the theoretical capability of mounting a decisive strike.[204] Furthermore, the US officials did believe this task was possible when they looked at civil defense in Britain, and they were sure it was necessary when they looked to the Soviet Union. Years before "bomber gap" and "missile gap" the civil defense planners came to the conclusion that there was a "shelter gap" between the US and the USSR.

McEnany describes how the British World War II model of civil defense inspired the American planners and served to reinforce their reliance on self-help.[205] Moreover, the Americans looked across the Atlantic for more than just lessons on the past war. The British system of civil defense in the early Cold War was praised, for the most part. One of the aspects the Civil Defense Liaison of the Office of the Secretary of Defense admire in a report from 1951 was the formation of a volunteer corps and its recruitment campaigns, which had started in November 1949. The report even noticed the corps had its own badge reinforcing a sense of identity. Also the shelter building program, which was to commence in 1951 in close cooperation with local authorities, was seen as practicable and proper.[206]

The United Kingdom, was much more vulnerable than the United States, because it had much higher population density and also was closer to the Soviet heavy bomber bases. Still, the American officials travelling to Britain were impressed by the British effort. David H. Stowe, who accompanied the first head of the Federal Civil Defense Administration Millard Caldwell to Britain, praised the cooperation between civil and military defense agencies in planning and noted that civil defense was seen as an integral part of the military defense of the UK. He also warned that this level of cooperation and integration did not exist in the US.[207]

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[203] "Federal Leadership to Reduce Urban Vulnerability," Interim Report, Project East River, 23 June, 1952, p.3, 136-2, Defense, Secretary of, Misc 2 of 2 1950-1953, Box 136, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library

[204] NSC 68/1, Annex No. 3, 1.

[205] McEnany, 24.

[206] "A Summary of Foreign Civil Defense Information, Supplement No.2," Office of the Secretary of Defense, Civil Defense Liaison, 31 January 1951, p. 18, CCS 384.51 B.P. Part 2, Box 201, RG 218, NARA

[207] "Memorandum for Deputy Secretary Lovett," David H. Stowe, 2 April, 1951, Civil Defense, Box 5, David H. Stowe Papers, Harry S. Truman Library

This was disputed by the Acting Secretary of Defense Robert A. Lovett, who concluded that his department "has consistently recognized the need for and vigorously sought close coordination on such [civil defense] planning."[208] At the same time, however, his memorandum informed Stowe that the Joint Chiefs of Staff did "not deem it desirable to place a representative of the Federal Civil Defense Administration within the Continental U.S. Defense Planning Group."[209] It may seem surprising, but it was in line with the effort to keep the clearly delineated responsibilities for active (i.e. military) and passive (i.e. civil) defense measures.

As Chapters 2 and 3 demonstrate, the civil defense agenda was subject to the very same fears of militarization, which grasped American policy planners with regard to military programs of the national defense. Dr McEnaney suggested that "[...] Presidents Truman and Eisenhower worried that military supervision of civil defense might presage military governance of civil society entirely."[210] The US and the UK were perceived to be at a disadvantage when compared to the Soviet Union´s ability to marshal the everyday lives of its citizens for the purposes of civil defense.

An analysis of the Soviet civil defense program from 1952 stressed that while Kremlin ostensibly ran it as a voluntary, the meaning of the word was not the same as in the US and it merely suggested that participation was enforced using more indirect means.[211] Older estimate of the number of such volunteers supposed to have undergone civil defense training in the Soviet Union put the figure at 5 million people based on the Soviet report from 1950. The American intelligence also assumed that the Soviet goal was to provide training in all skill necessary in atomic war to all its citizens.[212] Compared to that, the US expected to train between 15 and 17 million of Americans in different civil defense skills and even that relied on the success of recruitment campaign.[213] By the end of 1951, fewer than 2 million had actually volunteered.[214]

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[208] "Memorandum for Mr. David H. Stowe," Robert A. Lovett, 19 April, 1951, Civil Defense, Box 5, David H. Stowe Papers, Harry S. Truman Library
[209] Ibid.
[210] McEnaney, 12.
[211] "Civil Defense in the USSR," NIE-60, CIA, 30 April, 1952, p.1, Box 215, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library
[212] "A Summary of Foreign Civil Defense Information, Supplement No.2," Office of the Secretary of Defense, Civil Defense Liaison, 31 January 1951, p. 18
[213] "A Report on Civil Defense," Second Draft, Office of Defense Mobilization, 17 September, 1951, P. 2, Defense Mobilization, Office of, Memoranda 1951-52, Box 12, Confidential File, White House Central Files, HST Papers, Harry S. Truman Presidential Library
[214] FCDA Annual Report for 1951, p. 19, Box 5, RG 304, NARA

If America lagged behind the Soviets in number of volunteers, its perceived unpreparedness in terms of protective constructions (i.e. shelters) was even more striking. The intelligence estimates agreed that on top of substantial number of facilities from World War II, evidence of new shelter construction supported the conclusion that the program was extensive and including air raid bunkers built under apartment buildings, in road, railroad and subway tunnels, mines, and even aqueducts and sewer pipes.[215]

CIA acknowledged that it was impossible to estimate how much these measures would actually help the USSR to minimize the damage from atomic attack. Nevertheless, it came to a clear conclusion that combined with improving air defenses the civil defense measures provide it with increasing capability to defend against an enemy air attack and that its capacity to absorb and minimize the damage was definitely larger than that of the US and most likely even greater than Britain´s.[216]

The Soviet civil defense was not to be studied only to see what measures and practices could be copied by the US in the same way the British system was. The degree of vulnerability to the US atomic counteroffensive became an important variable in the overall balance of power equation. According to CIA´s estimate of the Soviet capabilities and intentions from November 1950, the growing atomic capabilities culminating in the ability to deliver seriously crippling or decisive attack on the US would lessen the deterrent potential of the US atomic superiority in numbers of bombs. Consequently, this would increase the importance of the Soviet perceived vulnerability for the Kremlin´s consideration.[217]

Millard Caldwell and Val Peterson, the first and the second head of the FCDA respectively, certainly tried to use this logic to justify the expenses when defending their agency´s budget in the Congress. In the summer of 1952 Caldwell argued that the benefit of a functioning civil defense would be two-fold; it would help keep peace by deterring the enemy and it would help reduce the damage if deterrence failed.[218] Val

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[215] "A Summary of Foreign Civil Defense Information, Supplement No.2," Office of the Secretary of Defense, Civil Defense Liaison, 31 January 1951; "Civil Defense in the USSR," NIE-60, CIA, 30 April, 1952

[216] Ibid.

[217] "Soviet Intentions and Capabilities," NIE-3, CIA, 15 November, 1950, p. 5, National Intelligence Estimate, 1-6, Box 215, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library

[218] Millard Caldwell before the House Appropriations Committee, statement transcript, July 1952, Record Group 397, Box 14, Defense Civil Preparedness Agency, Office of Civil Defense, Publication Office, Distribution Branch, Publication History Files, 1950 - 62, NARA.

Peterson echoed very similar sentiment a year later when he said that both retaliatory and defensive power work as a deterrent to an aggression.[219]

This indicates that the civil defense and its ability to reduce damage, thus lowering the chances of a successful attack by an enemy, was seen to a certain degree as a vital military consideration. If civil defense could work in the USSR, then it could work in the US as well. It could be argued that this reflects how hard it was for the military planners to accept the consequences of the revolution atomic armaments presented for warfare. Nevertheless, the planners did see a real military value in the program.

As McEnaney rightly points out, in the period between 1951 and 1958, Congress made appropriations for only about a fifth of the sum requested by the FCDA.[220] There are more possible explanations. Dee Garrison argues that it was partly Caldwell´s own doing because of his poor performance during the hearings in 1951 and partly opposition of Clarence Andrew Cannon, who recognized the unfeasibility of civil defense against a hydrogen bomb.[221] However, the true effects of that weapon were unknown outside the Atomic Energy Commission at that time. McEnaney suggested a different and more plausible explanation.

She argued that the failure to persuade Congress to provide the funding claimed to be the bare minimum by the FCDA "indicates the depth of its political hostility towards statist solutions for preparedness."[222] This was not a political attack of preparedness as a concept, but on the level of government involvement in and the scope of the program. Many members of the House Appropriations Committee and Congress felt that the program was big government in disguise and so the shelter construction fell victim to the opposition to the welfare state rather than military considerations.[223]

If Congress was skeptical on whether it was possible to build and operate extensive system of protective shelters, others voiced their fears that after a real attack with an atom bomb, military rather than civilian agencies would have to direct rehabilitation effort. Marc Peter, Jr., who had served as Civil Defense Attaché at the US Embassy in London from 1942 to 1945, wrote that the idea of millions of civilian

[219] Val Peterson before the House Appropriations Committee, statement transcript, June 4, 1953, Record Group 397, Box 14, Defense Civil Preparedness Agency, Office of Civil Defense, Publication Office, Distribution Branch, Publication History Files, 1950 - 62, NARA.
[220] McEnaney, 26
[221] Garrison, 41-42
[222] McEnaney, 46
[223] Ibid

volunteers was "a by-gone concept in conflict with the realities of total warfare."[224] Despite the peacetime proclamations of the civil defense, the demands of a total war and home front damage might have required a military rather than civilian rule.

In 1954, Val Peterson argued that the atomic attack would bring about the disruption so vast that the United States would have to, temporarily, turn into a dictatorship to survive.[225] This line of reasoning was firmly connected to the deeply rooted anxiety of political subversion, disturbances and sabotage caused by the domestic communists as outlined in the Chapter 2. Special estimates on the Soviet capabilities for a Surprise attack routinely elaborated on the potential of the subversive elements to cause disturbances further exacerbating the problem of after-attack rehabilitation. SE-10 from September, 1950 dedicated roughly six pages to the issue of subversion and just three and a half to the air atomic attack.[226]

While the secret civil defense planning materials do not reveal hypocrisy pertaining to the feasibility of national survival of atomic bombardment, they do show that the civilian nature of the program proudly emphasized in the peacetime, would most likely not have survived the first atomic explosion. Guy Oakes argued that "civil defense would call for no basic revision or radical alterations in the American way of life, the principles of which would be translated in toto into the post-war world without any loss of force or validity."[227]

The primary sources do indicate that at least at the beginning the planners believed that the US could survive as an organized political unit, as a nation. However, they also indicate that the post-attack world was certainly not expected to continue business as usually. The Navy Basic Emergency Plan-White illustrates clearly how much the military would have to be involved in the organization of the American World War III society. This document present the basic Navy plan for "all domestic emergencies, including civil defense."[228]

The Annex A to the document effectively lists all the legal provisions for the US Armed Forces to be deployed domestically to assist with catastrophes and disturbances. However, the plan gives surprisingly high level of discretion to local naval commanders

[224] Marc Peter, Jr. "Lessons from the Last War" in *Bulletin of Atomic Scientists*, August-September 1950, 252
[225] McEnaney, 20
[226] SE-10, Box 221, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library
[227] Oakes, 341
[228] Navy Emergency Plan-White, p. iii, Navy Basic Emergency Plan-White, CCS 384.51, B.P. Part 1, Box 200, RG 218, NARA

to act on their own initiative. They were allowed to take action without awaiting instructions from higher authority in urgent cases when it was necessary to help local authorities to maintain order.[229] Since the plan makes distinction between federal, state, and local authorities, it indicates that a military unit could use force on American citizens at a request of local police officers or sheriffs. This represents a tacit acknowledgement of the nature of the post-attack situation.

In another part the document specifically mentions the assistance could be given to the local police authorities without the request by the State despite the fact that exercising police force under normal circumstances is fully within the jurisdiction of the state.[230] Such procedures would only be necessary in a situation when communication had been severed and or the civilian leadership had been eliminated. This would amount to a military takeover of responsibilities assumed by civilian authorities under normal circumstances, albeit temporary if normalcy could be restored.

Furthermore, the plan envisioned the civilian volunteers to assist and augment naval forces and their support to be integrated into the duties performed by the Department of Defense.[231] Since the volunteers would not receive military training as suggested earlier by the Department of Defense[232], they would most likely not be asked to carry and use guns, but to help with civil defense tasks so as to free military manpower for different duties. Still, the volunteer force recruited by a civilian agency would be commandeered by the military and this contingency was clearly contemplated.

This is the answer to the civil defense circularity conundrum posed by Oakes.[233] In order to rehabilitate, social order would need to be instilled. Without social order, however, rehabilitation would be all but impossible. The NSRB and FCDA documents may not elaborate on how it would be achieved after an attack. The Navy´s Emergency Plan, however, clearly implies that it would be forced and maintained by the military. The vast civilian volunteer force recruited by a civilian agency would become an instrument of the Department of Defense.

Military played a major role in ensuring civil defense was practicable in other ways. With the growing number of bombs in the Soviet arsenal, the Air Force would have to be able to prevent larger and larger share of the enemy bombers from reaching

[229] Ibid., 8.
[230] Ibid., B-1.
[231] Ibid., D-2.
[232] see Chapter 2
[233] Oakes, 360

the targets in order to prevent saturation. This was a new phrase in the atomic war dictionary courtesy of the Project East River. This new level of threat would mean 500 bombs fell on American cities. This, of course was a theoretical maximum supposing all bombs were delivered on their intended targets. This would cause destruction on such a scale that the US would not be able to recover and the planned civil defense system would be able to do nothing to reduce the damage. [234]

The presumed Soviet capabilities, however, would not allow Kremlin to launch such attack for years to come. The authors of the report considered the exact date when the day would come "immaterial; the important point is that at some not-too-distant date the Soviet [sic] will have stockpiles of bombs that number in thousands."[235] Naturally, it did not matter when the enemy would have these numbers, for the decision to alter and improve air defenses drastically. However, it mattered significantly for these improvements to be feasible.

A CIA produced estimate from the very end of the analyzed period assumed that the Soviets would have between 200 and 600 bombs of 30 to 100 kiloton yield in 1955.[236] The estimate used in the interim report of Project East River suggested the number could reach 2000 between 1958 and 1962.[237] In any case, the United States still had the time to improve the active (i.e. military) defense to the degree that would allow its passive (i.e. civil) defense to perform adequately. Since the feasibility of civil defense now depended on the improved ability of the Air Force to shoot down enemy bombers, it is necessary to explore whether such improvement was seen as realistic.

It is important to realize that at this time, the bombs could only be delivered by manned aircraft and while research on guided missiles was going on, no immediate change was expected. In fact, a memorandum to the members of Armed Forces Policy Council from the July of 1950, estimated that even anti-aircraft guided missile were not to be expected to become operational for years. Regarding missiles launched from the US and capable of delivering a bomb on target in the USSR, the memorandum did not even attempt to guess when they would be available.[238]

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[234] Project East River, Interim Report, April 7, 1952, p. 31-32, 136-2, Defense, Secretary of, Misc 2 of 2 1950-53, Box 136, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library
[235] Ibid.
[236] NIE-90, 4.
[237] Project East River, Interim Report, April 7, 1952, p. 31
[238] "Memorandum for the Members of the Armed Forces Policy Council," 31 July, 1950, p. 16-18, Armed Forces Policy Council, Sec. 6, Box 103, RG 218, NARA

A Report to the NSC on Continental Defense filed in September 1953, a month after the Soviets exploded their first hydrogen infused bomb, concluded that continental defense, as it was, was not adequate and that system which would provide close to full protection was impossible, but reasonable effective defense system can be in operation in 1956. Furthermore, it stipulated that the system as planned would be adequate until at least 1960 and possibly longer than that, pending the improvements in the Soviet strategic bombing air arm and possible developments of guided missiles.[239]

So the military defense necessary for the civil defense to be a feasible concept was considered an attainable goal. Furthermore, while the Project East River concluded that the civil defense program was not sufficient without solid air defenses, it did not declare it unnecessary. It unequivocally stated that "however effective defense in the future, the result of even the leakage of the enemy through that defense would involve extensive casualties and damage. [...] however, civil defense measure can be taken that would reduce the relative vulnerability of the country enormously."[240]

The question, then, is how would civil defense cope in 1955, when the Soviets could theoretically have enough bombs to deliver 500 on the targets in the US and the Continental Defense would not be ready. The answer to that question is that such scenario was seen as close to impossible given the Soviet strategic air arm´s reliance on a TU-4, a reverse engineered American World War II B-29 bomber. It´s characteristics did theoretically enable Kremlin to try to deliver its full atomic stockpile on the targets in the US, but it would have been a desperate gambit rather than a deliberate decision.

The fundamental question of who knew what and when, however, is impossible to answer in this case. It has already been demonstrated that the estimates of the number and power of Soviet atom bombs were considered unreliable and varied greatly. The uncertainty, however, is not unexpected regarding nuclear issues, a closely held secret by the Soviets. It may be more surprising in case of a bomber that was completely copied on an aircraft whose characteristics the military planners must have known very well.

Most estimates available simply stated the range of the Soviet TU-4 was sufficient to reach the targets in the US without any further specification. Some went into more detail and demonstrated that such performance was based on assumptions for which there was no evidence. For example, nobody knew if the Soviet Air Force was

[239] NSC 195/4, p. 4, Box 21-A, RG 273, Entry 1, NARA
[240] Project East River, Interim Report, April 7, 1952, p. 2

capable of aerial refueling or whether stripped down version of the airplane was produced. It was simply assumed that they were technically capable of doing that. Both considerations affected the range and radius estimates significantly. Without these, one-way suicide missions were possible only against very limited number of targets in the US.[241]

It is, naturally, impossible to say with any kind of certainty, why these qualifications were omitted in some estimates. It may have been for the purpose of brevity, or it was not considered important given the fact development of new heavy bombers was always assumed for the purpose of both active and passive defense. Both defensive system would take years to build up, by which time the Soviets were expected to have bombers with longer range.

However, an interesting document with handwritten alterations does suggest that there was a difference in access to information for the military personnel and civilian staff. In his briefing of Civilian Consultants to the NSC Continental Defense Committee from August 1953 General Cabell crossed out a whole section explaining that there was no indication a stripped down version of TU-4 was ever produced including the sentence reiterating this would make it significantly more vulnerable to fighter defenses.[242]

General Cabell might have assumed that this vital information was self evident from the fact that it was a stripped down version. After all, Cabell´s own understanding of the strategic bombing issues came from long years in service. At the time of the briefing in August 1953, he was a Deputy Director of the CIA, but before that he had served as a director of the joint staff in the Office of the Joint Chiefs of Staff. He had also served in several roles in the intelligence of the Air Force ultimately becoming its director in May, 1948. During World War II he served with the 8th Air Force as a commander of the 45th Combat Bombardment Win before becoming a director of plans for the US Strategic Air Force in Europe.[243]

It is possible that given the level of his own experience in the field, he considered some points as self-explanatory. On the other hand, he might have wanted to make the threat more imminent in order to produce a report that would give more

[241] Pondělíček, *A Fearsome Ally*, 35-42.
[242] "Briefing of Civilian Consultants to the NSC Continental Defense Committee," 5 August, 1953, p. 4, accessed September 16, 2020 <https://www.cia.gov/library/readingroom/docs/CIA-RDP79R00890A000100070032-4.pdf>
[243] GENERAL CHARLES PEARRE CABELL > U.S. Air Force > Biography Display (af.mil)

money to the program. Whatever the reason, it seemed clear that absent a better bomber the Soviets would probably only have used their atom bombs against the US in an act of desperation they would have to be forced to. The US had no intention of doing that.

The period between the first Soviet atom bomb test and their first purported hydrogen bomb test did see growing anxiety of the American civil defense and military planners. However, this anxiety did not cause them to abandon the passive defense project and question its practicability or necessity. Still, its role evolved based not only on the growing number of weapons and their strength, but also on the means of delivery available to the Soviet Air Force.

Civil defense in this period was never meant to cope with devastation wrought by the hydrogen bomb or cornucopia of atom bombs. Despite the civilian nature of the program and the military´s fixation on conserving the manpower for the counteroffensive, plans for some level of military control after an attack were made to ensure restoration of basic social order necessary for the civilian agencies to perform their job. However, one of the greatest concern of the civil defense planners at the time was psychology. Their obsession with fear, panic, apathy and national spirit is the subject of the next chapter.

Chapter 5 - Apathy, Fear, and Terror: Psychology and National Spirit in Civil Defense

The fact that the civil defense planners did believe that there were steps that could be taken to reduce physical damage to American cities does not and should not obfuscate how much it absorbed the early Cold War fascination with psychology and national spirit. Multitude of authors have focused on this topic and since they usually do not consider civil defense to have been practicable, they come to the conclusion eloquently summarized by Laura McEnaney in her book *Civil Defense Begins at Home*. She wrote: "In a sense, the FCDA functioned as an ad agency whose client was the bomb. It had to sell the bomb as the centerpiece of a strong foreign policy."[244] This echoes earlier analysis by Guy Oakes who claimed that "acceptance of deterrence by the American people as an admissible means of achieving national security depended on the credibility of the view that even if deterrence failed, the consequences would still be tolerable."[245] FCDA was the agency that was supposed to make the Americans believe that.

However, this analysis of both the psychological underpinnings and goals of the program is incomplete. Threatening an atomic attack did not mean risking an answer in kind at the time of the US atomic monopoly. Paradoxically, it was precisely the Soviet bomb that by making the US more vulnerable made the logic of deterrence more complex. Before 1949, the assumption was that a conventional attack on Western Europe by the USSR would be followed by American atomic counteroffensive.[246] However, the American foreign and military policy planners were always convinced that if Kremlin did start a war, it would always use all the weapons in its disposal.[247] Before 1949, this meant biological and chemical weapons. After that point, it meant atomic bombs.

The United States did not plan to be the first one to use the bomb in case of a major war between 1949 and 1957. This was simply because they firmly believed that they would have been attacked first. They were not afraid of the Soviet retaliation by the means of nuclear bomb, they were afraid of a surprise attack that would knock them out

[244] McEnaney, 30.
[245] Oakes, 340.
[246] see Steven T. Ross, *American War Plans 1945-1950*
[247] see Soviet Capabilities and Intentions for a Surprise Attack series

of the war.[248] Whether the US survived this atomic Pearl Harbor, however, rested on national will, which Oakes and Grossman mistakenly claim was the "resolve to respond to Soviet aggression with nuclear weapons."[249] The USSR might try and only use their conventional army in hopes that the US would not launch an atomic offensive for fear of the Soviet retaliation.[250]

This reflects the line of reasoning was not new. As early as 1946, the Joint Chiefs of Staff doubted the determination of the American political leaders to use the bomb when the USSR built their stockpile and delivery means to levels that would enable it to cripple the United States. They assumed that this would probably be the preferred Soviet strategy, since they could still harness their superiority in conventional weapons.[251] The military establishment used this eventuality to push for increased defense spending.

Also, it is important to keep in mind that such estimate was based on the capacities of US military in 1946. In 1950, the JCS did plan for a defense line rather than a delaying action in Western Europe and even the Scandinavian Peninsula.[252] Moreover, while the Soviet initiation of hostilities without their resorting to the use of atomic weapons was still possible, it was viewed as much less likely possibility than the opposite. What was described as all but certainty in 1946 was considered unlikely in the early 1950s. The CIA acknowledged that its analysts "have as yet no clear indication concerning the place of atomic warfare in Soviet military concepts […]."[253] At the same time, the agency also assumed that "the maximum threat to the United States […] is that the USSR in a single surprise attack […] could seriously limit the offensive capabilities of the United States, possibly to a critical degree."[254]

It would make more sense for the Soviet planners to try and destroy the American capacity to retaliate than to wait and risk it would be used. To that end, Kremlin would not hesitate to launch a surprise attack possibly not having declared war first. That, at least, was the view of the American military and civilian planners at that time. So pervasive was this conviction of intrinsic insidiousness of the Soviet regime

[248] "Estimates of the Effects of the Soviet Possession of the Atomic Bomb upon the Security of the United States and upon the Probabilities of Direct Soviet Military Action," ORE 91-49, CIA, April 6, 1950, p. 6
[249] Oakes and Grossman, 363.
[250] ORE 91-49, p. 6
[251] Ross, 9-10.
[252] Ross, 143-144.
[253] ORE 91-49, 5.
[254] ORE 32-50, 2.

and its methods, that the Americans seriously contemplated an atomic bomb might be smuggled into the United States and used prior to the outbreak of hostilities along with chemical or biological warfare agents.[255]

That, however, does not mean that the issue of national will was not important. However, it was not used to describe specifically the Americans' willingness to support nuclear deterrence as a singular policy. What Kennan, whom Oakes and Grossman call "the most unrestrained [...] in his pronouncement on American moral collapse, his contempt for the American public and his disdain for the American citizen"[256], spoke of national will or moral foundations of strength, he was not referring to the Americans´ willingness to fight a nuclear war. His argument was the domestic foundations of diplomatic and military strength rest on moral and political structure. This, however, was threatened by "disharmony, dissension, and intolerance"[257] and not the bomb. Furthermore, Kennan made this argument shortly after World War II when he doubted the ability of the American political system to support a long term policy with immediately apparent costs, but elusive long term benefits.

Also, the US was not the only country which had reasons to feel apprehensive about moral and social strength affecting its foreign policy. In December 1946, Kennan even said that he believed that the Soviet political leadership was "seriously worried about economic and morale conditions within the Soviet population itself."[258] He and others may have belonged to the generation of students who "shared an infatuation [...] with the thinking of Henri Bergons and his ideas on the importance of *elan vital.*"[259] This, however, was a more general anxiety whether the Americans were capable of enduring a long tense period of armed peace with unprecedented international commitments and resulting military expenses.

Garrison, Grossman, Oakes, and McEnaney are correct in pointing out this obsession with moral and spiritual forces. Also, it is true that the CIA did believe the Soviet bomb had psychological implications for both foreign and domestic support of the American policies towards the USSR at that period. Since subversion was always seen as Kremlin's favored means of achieving its strategic goal, it was much more

[255] SE-10, 15 September, 1951, 7; NIE-18, 10 January, 1951, s. 4, National Intelligence Estimates, 7-20, Box 215, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library.
[256] Oakes and Grossman, 393.
[257] Giles D. Harlow, *Measures Short of War: the George F. Kennan Lectures at the National War College, 1946-47* (Washington, DC: National Defense Univ. Press, 1991), 15.
[258] Ibid., 80.
[259] Oakes and Grossman, 393.

likely that the Soviets would use their bomb to enhance their capabilities in this area than that they would actually go to war.

The Americans did fear that the growing disparity of forces between the US and the USSR might incentivize the European allies to adopt a position more favorable to the Soviets, and also empower dissent in the US.[260] The CIA concluded that the "future public appraisal of the significance of the atomic bomb will be the determining factor on the will to resist."[261] At the same time, it was not a foregone conclusion that Soviet possession of the bomb would lead to demoralization, as the American planners would label it, which would force significant alteration of the US foreign policy from containment to accommodation. It was also possible that the destructive potential of the bomb would lead the people to believe atomic war was impossible, thus negating the effect of the Soviet bomb. Stronger popular determination to resist regardless of the threat was seen as possible, too.[262]

Therefore, the civil defense campaigns are justifiably analyzed as an attempt to mold the public opinion in this respect. However, given the complex message of the campaign "to simultaneously scare and reassure people about the bomb,"[263] it is impossible to conclude that raising support for deterrence was its only or even the most important psychological goal. If the only purpose had been to make the Americans believe that they would have a chance to survive an atomic war, it would not have been necessary to scare them first to reassure them after that. McEnaney, Oakes, and Grossman are correct in pointing out that the FCDA's campaigns were at least in part a morale building exercise. However, their understanding of what that word meant is incomplete.

The American people had a rather complex view on what an atomic war would mean for them and how likely it was. Their sense of vulnerability, confidence in military protection, and distrust towards the Soviet intentions combined in a set of views that could have been reinforced and exploited in a much more productive way, if the only purpose really had been to make containment and deterrence more palatable in the view of the Soviet bomb. The fact that exploitation of such views was not attempted are not indicative of a failure of the FCDA to gauge them or properly understand them. It is indicative of other goals they were trying to achieve.

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[260] ORE 32-50, 3, Box 218, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library.
[261] ORE 91-49, 28, Box 218, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library.
[262] Ibid.
[263] McEnaney, 29.

For example in an AIPO poll conducted in December 1949, 45 % of respondents said that the Soviet bomb made the war more likely and the same number believed that it either decreased the likelihood or made no difference at all. At roughly the same time in January 1950, 60 % were skeptical of the sincerity of the Soviet government's peace intentions.[264] Two different AIPO polls from February 1951 found out that half of the respondents believed a war would come within the next year and 56 % of those living in towns of more than 10,000 people felt unsafe in case of an atomic war.[265]

Another poll from February 1951 found that half of the Americans believed that sending more troops to Europe would help prevent a war and only slightly less than one fourth subscribed to the opposing point of view that it would provoke it.[266] These results demonstrate that there was a widespread popular support of the American foreign policy towards the USSR despite the perceived danger. Stronger movement demanding some form of agreement with the USSR was made impossible by the general distrust of the Americans towards Kremlin.

If the FCDA did not have to fear defeatist attitudes which could theoretically force the Truman administration to adopt a foreign policy more accommodating of Soviet demands, they were bedeviled by the Americans' apathy towards preparing for an atomic war. In 1951, a report on civil defense concluded that this widespread indifference towards the program was "based presumably on the failure to understand that an atom raid on America's vital centers could be carried out successfully."[267] This contradicts the AIPO polls mentioned above, but it indicates that the planners believed American public was not taking the threat seriously.

Interestingly, the American planners identified apathy also as a problem for the Soviet civil defense program.[268] Despite the fact they did not elaborate on what the reason was in the USSR, it clearly demonstrates that apathy was seen not as a problem for foreign policy, but for civil defense's efficiency. They also noted that the Soviet authorities preferred propaganda to outright compulsion when facing the apathetic attitude of their population.[269]

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[264] Mildred Strunk, *Quarter Polls*, Vol. 14, No. 1, 182-183.
[265] Mildred Strunk, *Quarter Polls*, Vol. 15, No. 2, 382, 393.
[266] Ibid.
[267] Report on Civil Defense, Second Drat, p. 1
[268] Report on Foreign Civil Defense, p. 24.
[269] "Civil Defense in the USSR," NIE-60, CIA, 30 April, 1952, p. 1.

Another important reason for the Americans' disinterest in civil defense was their view on the capacities of the active (or military) defenses. McEnaney points out how FCDA's attempt at persuading the people to take part in civil defense activities was undermined by the public faith in the military and its ability to protect the US against an atomic attack by the Soviets.[270] The issue was alarming also because the share of people who subscribed to this view had risen significantly from 1950 to 1951. As Millard Caldwell pointed out, it had increased by twenty percentage points from slightly less than half to more than two thirds a year later. Moreover, this occurred despite the effort to dispel this notion.[271]

While this did present a serious problem for a civil defense program which required public participation, this combination of views would be ideal for garnering or maintaining support for both containment and deterrence. The argument is that the main purpose of the civil defense campaigns was to make the Americans believe they could survive atomic bombing so that they would accept the foreign policy which entailed the risk of such attack. However, the Americans' existing convictions (i.e. that the attack is either impossible or that it could be stopped and heavy damage prevented) were not threatening their continuing support of said policy.

On the contrary, it would have made little sense to try and persuade the Americans of the mortal dangers of an attack they believed would not come, if the only consideration had been to lessen their fear of it. Conveying the sense of vulnerability was completely defeating such purpose. This is especially true when considering how limited the delivery capabilities of the USSR were at that time.[272] A campaign intended solely to alleviate the Americans' anxieties about their survival in an atomic war would make much more sense if it focused on promoting the actually existing inadequacy of the Soviet strategic bombing force and the potential and planned military air defense of the continental United States.

Oakes and Grossman argued that this could not have been done because the idea of military defense had been publicly and privately rejected by the Joint Chiefs of Staff.[273] It is strange, to put it mildly, to assume that the government purposefully lying to the public about surviving an atomic blast would not be able or willing to lie to the

[270] McEnaney, 31.
[271] Memorandum to Robert A. Lovett from Millard Caldwell, FCDA, Box 3, PSB File, Staff Members and Office File, HST Papers, Harry S. Truman Library.
[272] see Chapter 4
[273] Oakes, and Grossman, 394.

public about the possibility of military defense in a situation when the majority of the Americans had already come to the conclusion such defense would protect them. If they made such judgment despite the government's repeated assurances to the contrary, the previous denials would not have mattered much. On the contrary, it would have been much easier to reinforce the notion.

Furthermore, at the time Caldwell complained about the growing public trust in military, or active, defense, there already was a program which encouraged civilians to participate in it. This program was called the Ground Observer Corps and, just as the civil defense programs of the early Cold War, was modeled on the organization created during the Second World War. When the FCDA was preparing its first campaigns, the recruitment effort and connected advertising activities had been in progress for more than a year. In 1951, the GOC conducted an exercise with more than 200,000 civilian participants.[274]

Historian Keyton Climer considers the Corps "one of the least studied elements of U.S. Homeland Defense efforts in the 1950s."[275] This seems to be the case for the scholars analyzing the civil defense programs as well. Granted, it belonged to the active defense part and it was not run by the USAF and not the FCDA, who was responsible for the organization of the post, but not for the training and actual operation.[276] Nevertheless, Val Peterson considered it an outcrop of the civilian defense programs and historian Matthew Farrish considers it "an intriguing bridge between histories of continental and civil defense."[277]

The purpose of this text is not to offer a detailed analysis of the program as a whole. However, since it was a part of the active (i.e. military) defense while at the same time involving hundreds of thousands civilian volunteers recruited through a massive publicity campaign, it represents an invaluable insight into how the cooperation of military and civil defense was seen by the authorities and communicated to the public.

If the main purpose of the civil defense campaign had been to placate the public and make deterrence possible by presenting the nuclear war as survivable, using the

[274] Matthew Farish, "The Ordinary Cold War: The Ground Observer Corps and Midcentury Militarization in the United States," *Journal of American History* 103, no. 3 (2016): pp. 629-655, https://doi.org/10.1093/jahist/jaw327, 629.
[275] Kenton Clymer, "The Ground Observer Corps: Public Relations and the Cold War in the 1950s," *Journal of Cold War Studies* 15, no. 1 (2013): pp. 34-52, https://doi.org/10.1162/jcws_a_00307, 34.
[276] Ibid., 37.
[277] Farish, 631-632.

GOC recruitment drive to picture military defense as possible would, in the light of the already high public trust in it, have made much more sense than undermining that notion.

However, the closer look at the campaign associated with the GOC reveals that its main tool was stoking fear through emphasizing American vulnerability. This information campaign was conducted through national media, but also using field workers who were issued kits containing information to help to educate the public in their locality.[278] Since the main goal of the campaign was recruitment, the materials naturally focused on the inadequacies of the US radar screen in detecting possible incoming air attack.

So the sample local feature story in the kit claimed that "the chance of enemy attackers destroying our cities is vastly increased without an effective network of human eyes and ears".[279] Simultaneously and ominously, it warned that "the volunteer corps of ground observers cannot do the job it must do because in many areas not enough citizens have heeded appeals to join America´s air defense team."[280] The wording clearly implied that the citizen observers on the ground were a practical necessity.

However, Farris demonstrates that in most exercises the performance of the observers was found lacking.[281] Furthermore, even by 1953 only a small fraction of about 5 percent of the observation posts considered requisite for the defense of the nation had been manned on a 24-hour basis.[282] Farris argues that the Air Force may have missed the reports on the abysmal performance of the observers, but considers it more likely they saw other benefits in the program.[283] Clyne concludes that the program "served the public relations interest of the Air Force, U.S. air defenses, and, more generally, the Cold War policies of the United States."[284]

The kit for field workers also included a printout of a November 1952 issue of *Pegasus*, a magazine published by the Fairchild Engine and Airplane Corporation. In it was an article by William G. Key which, apart from the usual call for more civilian volunteers to man the observation posts, also warned the readers that "all-weather

[278] GOC kit #2, News and Features, p. 1, GOC - General 1 of 2, Box 7, Spencer R. Quick Files, Staff Members and Office File, Harry S. Truman Presidential Library
[279] Ibid., 8.
[280] Ibid.
[281] Farris, 640.
[282] Clymer, 38.
[283] Farris, 640.
[284] Clymer, 34.

interceptors are just starting off the production lines in quantity to replace the earlier jets and F-51 [sic!] Mustangs and F-47 [sic!] Thunderbolts of World War II on which we still partly depend [...]."[285] Thus, the inadequacy of the air defenses of the United States was caused only partly due to the lack of civilian volunteers, but also by obsolete equipment.

This might have been a result of an increased pressure by Millard Caldwell, who in June 1952 complained that the USAF still had not acknowledged the deficient state of the U.S. air defense system.[286] However, just as with Stuart Symington in 1948, emphasizing vulnerability to an air attack was a useful way for the Air Force to strengthen its position in calling for increased budget. In this particular case, it naturally served the interest of the manufacturer as well.

The GOC could easily have been transformed into a celebration of increasing USAF capability to defend the U.S. mainland against an enemy air attack. The publicity campaign program of the civil defense could have been abandoned or significantly weakened. While that would have served the purpose of allaying possible fears of an atomic attack by reinforcing the belief the American public had by and large come to hold by 1952, it would have jeopardized other goals both campaigns sought to accomplish.

This fact further indicates that the psychological goals of the civil defense program must have been much broader. Most importantly, the emotional management that Oakes and Grossman describe[287] was directed at both the pre-attack and the post-attack phase. The combination of both sets of desirable results of the program provides the best explanation of why it was necessary to scare the Americans first before reassuring them. Without acknowledging that the civil defense was seen as realistic, however, it is difficult to make sense of the civil defense obsession of vulnerability.

Focusing on the program's psychological goal for the pre-attack phase first, it is important to realize that the American planners did not have to contend only or even predominantly with people who called for accommodating the Soviet demands. In the immediate post-war period, the American policy makers themselves were considering several different ways of maintaining the security of the US. Among them was the old

[285] Peagasus, November 1952, p. 2, GOC - General 1 of 2, Box 7, Spencer R. Quick Files, Staff Members and Office File, HST Papers, Harry S. Truman Presidential Library.
[286] Farris, 640.
[287] Oakes, and Grossman, 361-362.

notion of isolationism of returning to fortress America.[288] Even if it was in the end rejected by the executive, there were still adherents in the legislative branch and popular support for isolationism was never underestimated.

NSC 68, which raised of the American military being dangerously inadequate, concluded that the growing threat of the USSR could entice sections of American population to support either striking the Soviets first before they became too powerful, or reverting to the isolationism of the inter-war period.[289] Persuading the public to abandon these two sets of attitudes required both acknowledging vulnerability and providing reassurance, something the civil defense campaign was uniquely positioned to do.

The American people were concerned with foreign policy, but even at the height of the tension in the early 1950s, it cannot be argued that security was the only political consideration. In a poll from March 1950, when asked about the most important topics for the midterm Congressional election, 48 % respondents saw taxation and spending as the main issue that would be discussed. However, in a May poll from the same year, preventing war was mentioned by two fifths of those asked as the most important issue facing the whole country.[290] The attitudes were changing rapidly and it could be argued that given the substantial defense budget, the issue of taxation and spending was intrinsically linked to foreign policy. Nevertheless, it does prove that domestic perspective was applied to such issues.

In his memorandum to the director of Office of Defense Mobilization, Millard Caldwell expresses his view that civil defense is an essential tool in making the public understand and support the government policies. He claims that "the citizen who understands the need for more air raid sirens in congested areas will also appreciate the need for better combat aircraft."[291] Consequently, if the hypothetical citizen believed that an attack was almost impossible and that military would protect him or her in the unlikely eventuality it would come, it may reinforce the idea that defense expenses are satisfactory and that America can protect itself without its allies.

There are instances when he expressed this idea that the support for civil and military defense was linked and that people needed to feel the threat was real and

[288] Ross, 3.
[289] Hogan, 297.
[290] Mildred Strunk, Vol. 14, No. 3, 362-3.
[291] Memo to Charles E. Wilson from Millard Caldwell, July 23, 1951, p. 2, FCDA, Box 3, PSB File, Staff Members and Office File, HST Papers, Harry S. Truman Presidential Library

imminent in order to garner such support. He invited Stuart W. Symington, who had previously served as both the Secretary of the Air Force responsible for military defense and the head of NSRB responsible for the civilian defense, to speak at the opening of Civil Defense Staff College. What he wanted from him was a presentation of the "BACKGROUND FOR WAR' […] [which] will indicate the tensions […] out of which flows our sense of the urgency of military and civilian defense."[292]

This is significant, because it helps explain why emphasizing the emerging continental defense system and the Soviet virtual inability to strike the US homeland was not attempted. Reinforcing such attitudes might lead the American people to believe that the defense expenses were adequate and, more importantly, that US could, in fact, become an impregnable fortress again without the need for maintaining presence in Europe or supporting it with economic and military aid.

The continuing strain on the US treasury caused by the American commitments in Western Europe was never universally popular. While the Americans were in general accord that negotiating with the Soviet Union was not a practicable alternative to the atomic deterrent, the money spent on other containment policies in Europe proved to be a much more contentious issue. An AIPO poll conducted in September 1949, immediately after the first Soviet atomic test, found out that only a bare plurality of 6 percentage points supported Truman's plan for military and economic aid; 46 to 40 %. Worse still, among Republicans, the majority actually opposed it by 4 percentage points.[293]

The anti-international rhetoric was quite common at that time especially when it could be directed at a specific program that threatened militarization of the United States. A good example of this was the political battle over Universal Military Training Act. As historian Michael Hogan argued the critics of the proposal who had been accused of isolationism "fought back with a discursive strategy identified the Truman administration with the foreign other in Moscow and put both beyond the boundaries of America's democratic identity."[294] An urgent and imminent threat of the USSR served to blunt this criticism and the FCDA campaigns of the early 1950s emphasized it abundantly.

[292] Pondělíček, 47-48.
[293] Mildred Strunk, Vol. 13, No. 4, 725.
[294] Hogan, 321.

From that perspective, the Soviet possession of the atomic bomb proved to be invaluable tool to foster the idea that the United States simply cannot isolate itself from the international situation. The sense of vulnerability made fortress America an obsolete concept; the enemy could and would attack at any moment. Vulnerability was not necessary to counter the Americans' impetus for peace with the USSR, for there was very little at that time. If anything, it threatened to make Americans more vary of the effect of atomic war. However, it was useful in countering the Americans' impetus to isolate and fortify on their own continent[295] and deflect criticism of excessive militarization of the society and defense expenditures.

Thus, the pre-attack role of the civil defense was not only to make containment possible by making deterrence seem relatively benign and atomic war as survivable. It was, more broadly, to mobilize the population behind the overall Cold War effort by making fortress America project seem unfeasible and atomic war as possible.

Since the planners actually believed that the atomic attack by the USSR could be absorbed and survived, the program also had to prepare the population psychologically for the post-attack world. Guy Oakes and Andrew Grossman described the emotion which the civil defense expert expected the Americans to display in the face of an atomic attack as nuclear terror. This was seen as crippling and destructive, because it would lead to breakdown of social order.[296] They correctly explored the multitude of ways in which the planners intended to fight the panic, but then they assume that since real protection was not deemed possible, the whole effort was meant to manage the emotions before the attack by demonstrating to the public that through managing emotions such attack may be survived.[297]

This, however, overlooks the fact that the American planners expressed the same assumptions about the post-attack psychological reactions about the Soviet populations. Rehabilitation after an attack was seen as possible[298], but it depended on the correct reaction of the people. Contrary to what Oakes, Grossman, McEnaney and Boyer claimed, this was more than a farcical attempt at cajoling people into false sense of security. The US planners observed not only the civil defense planning in the USSR, but also the public campaigns related to it. They have noted that "the internal Soviet

[295] Andrew D. Grossman, Neither *Dead Nor Red: Civil Defense and Amercian Political Development During the Early Cold War (*Routledge, 2001), 22.
[296] Oakes, and Grossman, 366.
[297] Ibid., 394-395.
[298] see Chapter 4

propaganda has constantly minimized the effects of attacks and there is apparently little popular anxiety about the consequences of atomic bombing."[299]

This conclusion in the Report on Civil Defense in the USSR is essentially the same as in the earlier report on the possible psychological effects of the US atomic bombing offensive against the Soviets.[300] Assuming that the only purpose of the civil defense campaign in the United States was to reduce the anxiety and terror, minimizing would seem as a more productive approach. This however, would have been made more difficult for the US given the free press, which would allow atomic scientists to dispel the official propaganda quite quickly.

Furthermore, this approach had advantages at the time before an attack, hampered psychological preparation for the aftermath. The US intelligence concluded that the Soviet propaganda's successful effort to hide the true effects of the American atomic bombing together with the lack of experience with strategic bombing in World War II made the Soviet citizens psychologically unprepared for an atomic attack.[301] If psychological preparedness was seen as something only useful for fostering support for foreign policy before an attack, the US would probably not waste resources studying the potential psychological impact of its bombing campaign on the Soviet people.

While McEnaney argued that "AEC guarded closely the most damning crucial data,"[302] the total number of deaths and casualties was quite freely admitted in public. In fact, it was even exaggerated at times. In his address before the Industrial Advertising Council from January 1951, General Charles L. Bolte spoke of 20 to 30 million dead.[303] The Estimate of the Effect of the Soviet Possession of the Atomic Bomb from April 1950, however, predicted about 10 million total casualties including wounded if 200 bombs were dropped on targets.[304] Naturally, Bolte had an agenda; he was arguing for increased military presence in Europe, which in his words could reduce the need for aerial war of attrition. Notwithstanding this, at the very least the American military and government officials did not try to hide the horrendous number of dead and wounded an atomic attack would cause.

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[299] "Civil Defense in the USSR," NIE-60, CIA, 30 April, 1952, p. 3.
[300] SE-15, October 4, 1951, p. 3-5, Box 221, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library.
[301] Ibid.
[302] McEnaney, 29.
[303] The Role of the Army Today, address by General Charles L. Bolte to Industrial Advertising Council, Pittsburgh, PA, January 1951, p. 10, Defense Dept., General 1951-July 1952, Box 12, Confidential File, HST Papers, Harry S. Truman Presidential Library.
[304] ORE 91-49, 12.

They did this precisely because they believed that realistic expectations would reduce the panic after the actual attack. Of course, that the tens of millions of dead and wounded would not cause the remainder of the population to panic seems a preposterous idea to such a degree that it is easy to come to the conclusion that it was never suggested seriously.[305] However, the primary sources indicate that the psychological resilience was, in all earnestness, seen as practicable. It was just necessary to prepare the people for the hecatombs of atomic war, since they, unlike the Soviets, had not experienced widespread devastation and hardships in World War II.

Furthermore, the racialized thinking of the time and the strong belief in different national spirits, the Soviet people were seen as more capable of suffering the hardships of an atomic war. As historian Catherine Merridale argues, the American ideas on the psychology of the Soviet soldiers were at least in part the product of the assessment obtained from the former German officers in 1947. This led them to conclude they were primitive, impervious to hardships, and deceitful.[306]

These characteristics were, by extension, attributed to the Soviet population as a whole. The draft of the document Soviet Intentions and Capabilities elaborates on that in detail: "The population is hardy, habituated to deprivation and able to live off the land. Soviet women can and do perform heavy labor reserved for men in other countries; they have, in fact, shown themselves able to participate directly in military operations. Psychologically, the Soviet citizen is accustomed to discipline."[307]

Naturally, the answer was not to change American citizens into Soviet-style ones. The psychological conditioning had to be done in line with the perceived American national spirit; individualism, self-reliance and freedom. That does not mean that coercion was not used. It was, as the Part 3 will show, punishable not to take part in the civil defense drills, for example. But the majority of the effort had to be based on voluntary cooperation rather than force.

As Oakes points out, there was a widespread fear that even if the bombs were relatively few in numbers and the destruction they caused relatively limited, the panic the attack would cause would knock the US out of the war completely.[308] This view was

[305] see Oakes, and Grossman
[306] Catherine Merridale, *Ivan's War: Life and Death in the Red Army, 1939-1945* (New York: Picador, 2007), 12.
[307] Draft 2, Soviet Intentions and Capabilities, February 1950, p. 6, 176-4, Atomic Energy Russia, Box 176, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library.
[308] Oakes, 369.

shared by Caldwell, who claimed in July 1951 that the US was so psychologically unprepared and the population so ignorant that "a half dozen bombs on as many cities, with a consequent million casualties, would so shock and benumb the American public that the very will to fight and win could be lost."[309]

Building shelters and continental defense which would allow keeping the damage and casualties to acceptable levels[310] needed time, but if as few as six bombs could mean defeat, they would still be useless. Psychological unpreparedness for an atomic attack was also seen as a major deficiency of the Soviet civil defense program, which also indicated the level of importance the US planners ascribed to psychology of citizenry in nuclear war. At the same time, the civil defense officials feared that this psychological conditioning was hindered by a widespread apathy.

While Grossman argues that it only emerged in the late 1950s and early 1960s as the result of the public disbelief,[311] FCDA documents attests to the fact that it had developed much earlier and as a result of confidence. This confidence, however, was considered misplaced by the government agencies. Instead of supporting it, they sought to dismantle it. It simply could not serve the complex range of objectives the civil defense campaign was supposed to attain.

Thus, it is possible to assert that apart from the real material contribution of the civil defense to lowering the number of casualties, the program had three major psychological goals. The first one was to prepare the Americans for the horrors of an atomic attack, which, as the planners honestly if erroneously believed, would increase the chances of national survival should the war come. The second was to garner the popular support for an increased budget for the Armed Forces and, more specifically, the Air Force. The third was to emphasize the need for the US engagement to counter possible isolationist tendencies.

[309] Memorandum to Charles Wilson from Millard Caldwell, July, 1951, p. 1
[310] The word acceptable is used here to refer to what was believed to be the maximum damage allowing the US to continue waging the war. It does not evaluate either whether such unimaginable carnage would in fact have been acceptable by the public in case of an attack or the moral implications of it.
[311] Grossman, 71.

Chapter 6 - Individual and National Survival: Tailoring the Message

The public campaigns, movies, pamphlets and drills are the most significant trace the civil defense effort of the early 1950s left behind. This fact is indisputable, since the budget of the FCDA never allowed for any substantial shelter construction. The answer to what the planners were actually trying to accomplish and how they understood the public mood at the time, however, is more difficult to answer. Grossman argues that the two main purposes were to overcome first apathy and then fear.[312] The way the issue was framed and the campaign was organized is directly relevant to the assessment of whether the whole program was conceived as a realistic one or just an exercise in propaganda. In other words, this chapter answers the question who the "client" of the FCDA was and how the agency intended to sell it.

As demonstrated earlier in the text, the most pressing problem for the civil defense planners was the perceived public apathy caused by the citizen´s faith in the military´s ability to protect them. It is necessary to investigate further why this was identified as the most immediate issue. Generally speaking, the planners had reason to believe public support for as well as confidence in some sort of civil defense program was high. According to the University of Michigan Study, which Caldwell was referencing when complaining about high degree of trust in military protection, overwhelming 85 % of Americans said the government should start a campaign and a third answered "yes" to the question whether they thought civil defense preparation would do any good in case of an actual attack, while further 56 % stated "yes" with some kind of qualification.[313]

The report, which was published in 1951, was based on interviews conducted between September and October of the previous year. This indicates that the public mind did not need to be demonstrated that atomic war was survivable and civil defense could help with that. When the FCDA started its campaigns in 1951, it believed that Americans had, by and large, already come to these preferable conclusion about an atomic war. Closer look at the other data — most importantly the linkages between support for civil defense and beliefs about bomb effects, war probability and military

[312] Grossman, 83.

[313] University of Michigan. Survey Research Center. (1951). *Public thinking about atomic warfare and civil defense: a study based upon an intensive interview sample survey of people in eleven major cities, September-October 1950.* Ann Arbor., 91-92 (accessed September 16, 2020) <https://catalog.hathitrust.org/Record/002028356/Home>

protection — offers a much more nuanced picture. This picture helps explain why the campaign was needed in the first place and why it framed the issue the way it did.

Sociologists Elizabeth Douvan and Stephen Whitey used the report as one of the sources for their article "Attitudinal Consequences of Atomic Energy" from 1953. In it, they summarized the problem that needed addressing in the following way: "There are individuals who think there is danger of American cities being subjected to atomic attack, who nevertheless say there is no need for civil defense preparation. On the other hand, there are many who do not admit such a possibility but feel rather urgently that preparations should be undertaken. Finally, there are those who think their city should take immediate preparatory steps toward caring for survivors of an atomic attack, despite the fact that they think a single atomic bomb would entirely obliterate that same city."[314]

While these results did not necessarily reflect the reality of what American citizens thought about the prospect of an atomic war and possible measures to lower the resulting casualties, the planners did believe in their accuracy and they created and adapted their message accordingly.[315] While the inconsistencies in beliefs outlined by Douvan and Whitey may not have been so significant given the number of people who held them, there were serious paradoxes the FCDA staff had to deal with.

For example, while almost 90 % people said that civil defense was, at least under some conditions, useful, only slightly less 20 % of the respondents were able to correctly state what the radius of absolute mortality would be.[316] The correct answer for the purpose of the survey was considered to be under 1 mile based on the US Strategic Bombing Survey from Hiroshima and Nagasaki.[317] At that time, the most powerful weapon the U.S. had tested was 49 kt TNT equivalent, which is about three times the size of the Hiroshima bomb and two times of the Nagasaki one. Whether the absolute mortality radius considered realistic by the Survey Research Center staff actually was realistic is not that important.

It is much more interesting to analyze how that supposedly pessimistic or alarmist expectation of atomic bomb damage affected support for the civil defense

[314] Elizabeth Douvan and Stephen B. Withey, "Some Attitudinal Consequences of Atomic Energy," *The ANNALS of the American Academy of Political and Social Science* 290, no. 1 (1953): pp. 108-117, https://doi.org/10.1177/000271625329000114, 111.
[315] McEnaney, 32.
[316] Public thinking about Atomic Warfare and Civil Defense, 73.
[317] USSBS, The Effects of Atomic Bombs on Hiroshima and Nagasaki, p. 41, Atomic Bomb and AEC, Box 3, Confidential File, HST Papers, Harry S. Truman Presidential Library

program. The study reveals that its influence was so slight it was almost insignificant, which is clearly by the Table 70 from the text.

Table 70

Relation between Estimates of Mortality Radius and Feelings of Need for Civil Defense

Feeling of need for civil defense*	Estimate of atomic bomb mortality radius**			
	Realistic	Exaggerated	Highly exaggerated	Don't know
Strong	29%	26%	24%	12%
Moderate	55	63	62	69
Weak	13	9	10	8
Don't know	1	--	1	5
Not ascertained	2	2	4	6
	100%	100%	100%	100%
Percent of total sample#	17	29	23	23

* See footnote *, Table 68.

** See Table 39, Chapter 4, for the questions and responses on which the radius classifications in this table are based. "Realistic" includes responses of up to a mile, "exaggerated" from one up to five miles, and "highly exaggerated" includes responses of five miles and over.

Excluded from this table are the data for the eight percent of the total weighted sample whose estimates of mortality radius were not ascertained.

Roughly the same percentage of people expressed neutral or negative opinion of the need of civil defense regardless of whether their estimate was realistic, exaggerated or highly exaggerated; 13, 9, and 10 percent respectively. Conversely the share of people strongly or moderately[318] supporting civil defense campaign was almost identical as well; the range was between 84 and 89 %. The difference was comparably small in the category of strong supporters; 29 % of those with realistic view strongly supported government´s starting civil defense campaigns, while only 26 % and 24 % did among those whose estimate was considered exaggerated and highly exaggerated respectively.[319]

[318] Defined as people who answered "yes, definitely should" (strong) or "yes, should" (moderate) to the question of whether the government should start recruitment campaign to entice people to take part in civil defense.

[319] Public thinking about Atomic Warfare and Civil Defense , 110.

This supports Grossman´s thesis that the "willingness of local communities to mobilize in the late 1940s and early 1950s is a rare example, in American history at least, of local community demanding more from a federal line agency than it could quickly deliver."[320] In other words, people were supportive before the Truman administration was even initiated a campaign. However, the narrative of all encompassing fear and panic that the FCDA had to ease is incomplete. Panic, as stated before, was a concern only after an attack, and the fear of an atomic war did not always produce predictable responses.

The following Table 75 from the study on Public Thinking about Atomic Warfae and Civil Defense shows as much.

Table 75

Relation Between Estimates of Mortality Radius and Cities' Current Civil Defense Efficiency

As city is set up now, could it do a good job in event of bombing? *	Estimate of atomic bomb mortality radius**			
	Realistic	Exaggerated	Highly exaggerated	Don't know
Yes	23%	19%	32%	35%
No	71	67	54	35
Don't know	5	9	11	22
Not ascertained	1	5	3	8
	100%	100%	100%	100%
Percent of total sample#	17	29	23	23

* See footnote *, Table 73.

** See footnote **, Table 70.

Only 23 % of those who gave "realistic" estimate of the mortality radius believed that their city civil defense would help much in the event of an attack. This dropped to 19 % among those with exaggerated expectations, but rose to 32 % in the group of respondents with highly exaggerated appraisal. Furthermore, the ratio was roughly the same about those who offered no guess on the extent of the radius.[321] Contrary to what one might expect, the ones fearing the most also had the best opinion on the state of

[320] Grossman, 70.

[321] Public thinking about Atomic Warfare and Civil Defense, 117.

preparedness. This belief, though completely irrational, may have been a result of fear.[322]

The researchers themselves offered this explanation for the people who expressed no interest in the topic and no desire to be informed. They surmised that it was not what they called a neutral disinterest, but a deliberate withdrawal from the topic inspired by fear rather than disregard.[323] This explanation, however, only applied to those who expressed no opinion and not to those who did. It is possible to use this assumption for those disinterested; strong support for civil defense was expressed by only approximately 13 % of those who did not give their estimate of mortality radius, half of the figure of those with highly exaggerated expectation.[324] However, it is much harder to make the same kind of connection for the group of people who saw the possible destruction of "unrealistically" high.

Slightly more than 40 % of those who said the radius was more than two miles said they had recently heard and wanted more information about what to do to for protection. The same figure for those who gave "realistic" value for the radius was about 56 %.[325] So while it is possible to claim there was more resistance to obtaining more information about the bomb among those more afraid, a significant share of them did not withdraw from the topic. The difference was much more pronounced between groups based on the expectation of military defense to be effective in preventing heavy damage. Only 20 % of those believing the military could offer complete protection had heard and wanted more information; only about half of the figure among those anticipating at least some damage.[326]

Furthermore, the level of belief in the military protection also caused greater differences in the support for civil defense as such. Only about 33 % of those relying on complete military protection thought their city´s civil defense would not work. The corresponding figures for the groups expecting light and heavy damage was two fifths and nearly three quarters respectively.[327] Also three times as many of those fearing heavy damage despite the military´s effort to protect were strong supporters of the need for civil defense as those anticipating no damage at all; 30 and 10 % respectively.[328]

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[322] Spencer R. Weart, *Nuclear Fear: A History of Images* (Harvard: Harvard university Press, 1988), 75.
[323] Public thinking about Atomic Warfare and Civil Defense, 144.
[324] Ibid., 110.
[325] Ibid., 145.
[326] Ibid.
[327] Ibid., 115.
[328] Ibid., 109.

Additionally, the support for civil defense grew significantly with the sense of danger. Just above two fifths of those saying their city was very likely to be bombed in the next war agreed strongly the government should launch a campaign, while it was less than 20 % those saying it was unlikely and only slightly more among those saying it was likely.[329] This was the starting point before the campaign was launched. If reassurance had been the key goal, the FCDA would not have much to do. As stated in the previous chapter, promoting the GOC would have calmed the population down more efficiently while at the same time giving people sense of actively doing something to prevent the attack. At the same time, participation in the GOC was actively presented as being more glamorous using the association with the military forces.[330]

The FCDA, however, chose the exact opposite strategy. It tried to dispel hopes for military protection against the bomb while also trying to accustom Americans to the images of death and destruction, albeit in a sanitized form. It corresponds with the fact that the planners believed the Soviets were making a mistake by belittling or ignoring the bomb and its effects in their civil defense campaigns. According to their reasoning, this presented a psychological vulnerability. This weakness, however, would only present itself after an atomic attack.

Obviously, there were limits to what civilians could be shown. When it came to pictures of real casualties of an atomic explosion, which the US Army had shot in the cities of Hiroshima and Nagasaki, their use within the FCDA was stopped in March 1951. They were part of a film named *Everybody's Business*; the same slogan the FCDA used in its other materials. From 1951 onwards, the civilians were only allowed to see mock casualties and staged damage for training purposes. Pictures from the two cities which had actually been hit with an atomic bomb were still used, but they presented a different kind of reality. They showed the post-attack normalcy; families drinking tea and doing other benign and mundane activities.[331]

This does not mean, however, that the Americans were spared the images of carnage altogether. However, following the advice of the Michigan University report, the idea was to emphasize action rather than the effects they were trained to protect themselves again. The motivation behind this was twofold. Firstly, the Research Group concluded that people were more receptive of information on protection, because it

[329] Ibid., 108.
[330] Clymer, 37.
[331] Pondělíček, 34; Barnet W. Beers, *Memo to Harold L. Goodwin*, March 1, 1951.

enabled the audience to relate more easily than abstract information on radiation blast damage. Secondly, it helped alleviate fear people might feel. This, however, did not mean the effects were to be downplayed. Since the more information the people had, the more they seemed to want to obtain, the researchers and the planners concluded that the information on effects could break the barrier to those theretofore uninformed.[332]

For this reason, the published materials focused on personal survival and family. The first widely spread pamphlet concerning this topic was *Survival Under Atomic Attack* published in 1950 under the auspice of the NSRB. In 1951 alone, the FCDA distributed 20 million copies of this booklet to the American citizens.[333] The information contained within was derived from the document *Effects of Atomic Weapons*, which in turn came from the data gathered during Sandstone series of test in 1948 "adjusted to fit into the nominal burst concept."[334]

Weart and McEnaney claim that the FCDA was not informed about all the dangers of an atomic bomb explosion, mainly about the radiation.[335] Nevertheless, the information about blast damage radii in Hiroshima and Nagasaki from the USSBS are roughly comparable to those in the NSRB pamphlet. More importantly, these assumptions were supported in a secret report from the Operation Crossroads, first postwar nuclear tests; it gives the mortality rates at just below half at 1660 yards, almost a third at 2000 yards, one eight at 2300 yards and a few mortalities at 3000 yards.[336]

Survival Under Atomic Attack did not hide this information. In fact, it even gave a slightly more pessimistic estimate of an individual´s chances of survival. It sated in no uncertain terms that for people right under the bomb, there was virtually no prospect of surviving. It also said that the probability of dying within half a mile is 90 % and 50 % at distances from half a mile to a mile.[337] This means a compound death rate of three fifths supposing the population density in both zones is approximately the same.

Official government material, however, were not the only channels through which Americans obtained information about the atomic weapons and their possible effects on their cities. There was hardly any place in American culture and media the

[332]Public thinking about Atomic Warfare and Civil Defense, 144-145.
[333] Weart, *Nuclear Fear*, 130.
[334] Staff Study, Public Information Plan - Operation Greenhouse, 26 February, 1951, p. 5, 176-13, Atomic Testing, Greenhouse, Box 176, President's Secretary's File, HST Papers, Harry S. Truman Presidential Library.
[335] McEnaney, 29 and Weart, Nuclear Fear, 179-180
[336] The Evaluation of Atomic Bomb as a Military Weapon, 22.
[337] Survival Under Atomic Attack, 4-5 (accessed September 16, 2020) <http://large.stanford.edu/courses/2017/ph241/payzer1/docs/survival.pdf>

bomb did not penetrate. The first live images of an atom bomb explosion shown on local TV in 1951 and the recording from the testing ground in Nevada broadcasted nationwide a year later had an especially significant impact on the public.[338] Luckily for the administration, the media were more than willing to cooperate in spreading the desired official message.

In 1950, the single most important source of information about the bomb´s effects were newspapers and magazines; between them, they supplied the information to two thirds of those informed. Mere one percent of those who professed to have heard about them in the previous year claimed they had obtained the information through official pamphlets or exhibits and formal discussions.[339] Even television fared only marginally better; three percent heard or sar the information on their TV screens.[340] Nevertheless, the importance of the new gadget in American homes grew rapidly in the early 1950s. Doherty claims that it went from an essentially luxurious product found in about 1 in every 10 households in 1949, to a ubiquitous piece of furniture finding its way into 9 in 10 households a decade later.[341]

Thus, the privately owned media became an integral part of the civil defense publicity efforts. It was a mutually beneficial partnership. The bomb captivated readers and viewers ensuring good ratings and the NSRB and later FCDA did not have to pay for the air time and print inches. The executive producer of a series *Primer for Survival*, aired on CBS and produced in cooperation with the Office of Civil Defense of the Department of Defense in 1950, gleamed over the enthusiastic response by the audience.[342] The vice president of NBC informed Symington, then the director of NSRB, that a TV star Kate Smith and her manager Ted Collins want to be "of service in the war effort."[343]

In 1951, the head of the newly found FCDA Millard Caldwell appeared on the same network in a special edition of *Meet the Press*. The Network was so deferential towards the agency that the whole program structure and questions were cleared with its

[338] Thomas Patrick. Doherty, *Cold War, Cool Medium: Television, McCarthyism, and American Culture* (New York: Columbia University Press, 2003), 368-378.
[339] Of course, the survey was conducted before any substantial campaigns were launched.
[340] Public thinking about Atomic Warfare and Civil Defense, 132
[341] Doherty, 283-284
[342] Pondělíček, 63.
[343] Sydney B. Eiges to Stuart Symington, letter, July 27, 1950, Record Group 304, Box 14, National Security Resources Board, Office of the Chairman, National Archives and Records Administration, Washington.

staff beforehand. [344] Caldwell was even asked by the producers to suggest someone to play opposition on the show.[345] He was treated very similarly by the producers of the CBS *The Facts We Face*.[346] Furthermore, it was not just the television networks themselves who freely cooperated with the federal agencies responsible for civil defense. Radio producers, magazines and comic book publishers, at times, also consulted with them and accepted their factual corrections.

Clifford Kaynor, the President of National Editorial Association, having received a copy of *Survival Under Atomic Attack* wrote to John De Chant of the Civil Defense Office at the NSRB to offer cooperation. He suggested producing full and abbreviated series based on the pamphlet and volunteered to help persuade the 570 daily and 5000 weekly papers organized under NEA to run them.[347] Many, however, decided to publish pieces on civil defense or the bomb´s effects even without this encouragement. Even magazines focused on something as distant from the images of death and destruction as fashion showed interest. The Associate Editor of Harper´s Bazaar asked for still pictures taken from the short movie version of the pamphlet in order to publish them.[348]

Mr. James Patterson wrote to Caldwell that he had an opportunity to prepare a ten minute program for several radio stations in Connecticut in February 1951. He wanted to make it about civil defense and asked for information about its status and progress.[349] Comic books producers also offered their help. In January 1951, Murray Berkowitz of King Features Syndicate wrote a letter to De Chant, who by then had transferred from the NSRB to the FCDA, proposing his staff made a comic strip under the supervision of the agency. He believed that this would present the message in the form understandable to anybody regardless of age and education.[350] For this reason,

[344] Grossman, *Neither Dead nor Red*, 47.
[345] Pondělíček, 66.
[346] Grossman, *Neither Dead nor Red*, 47.
[347] Clifford Kayonr to John De Chant, letter, November 14, 1950, Record Group 304, Entry 31A, Records of the Office of Civil and Defense Mobilization, National Security Resources Board, National Archives and Records Administration, Washington (hereafter cited as Kaynor to De Chant, letter, NARA).
[348] Letter to Publicity Department of Civil Defense from Dorothy Wheelock, February 21, 1951, E4-31, Box 1, RG 304, Entry 31-A, NARA.
[349] Letter to Millard Caldwell from James T. Patterson, February 16, 1951, E4-28, Box 1, RG 304, Entry 31-A, NARA.
[350] Letter to John DeChant from Murray Berkowitz, January 31, 1951, E4-28, Box 1, RG 304, Entry 31-A, NARA.

comic books were particularly valuable for the FCDA, because the people with lower education showed less of an interest in participating in civil defense activities.[351]

It is no wonder then that when given the opportunity to review one privately published comic book with the topic, De Chant investigated each picture and accompanying text meticulously and prepared a lengthy answer commenting on 16 out of 34 frames of the strip. He strove to correct every minor inaccuracy he saw. Interestingly, when he discovered the piece claimed blankets and sheets can protect against radiation, he dispelled this idea despite the fact, it would have been more comforting to the readers if he had left it without a comment.[352] Whether the FCDA had accurate information about radiation and damage at the time, it seems that it was focused on disseminating what it believed was accurate information. This was true even in case the published material was not of their own production.

The question remains, to what extent the facts about dangers to an individual available to the NSRB and the FCDA and communicated through them to the American public were true. In other words, are McEnaney and Weart correct in their assumption that both the agencies and by extension the citizens were lied to about radioactivity? Comparing the information in *Survival Under Atomic Attack* and provided by De Chant to the publisher of the comic strip with the secret and unpublished data in the Final Report Joint Chiefs of Staff Evaluation Board for Operation Crossroads does not provide a simple yes or no answer.

The FCDA pamphlet informed divided radioactivity caused by a bomb´s explosion into two main types, explosive and lingering. The first one was the released at the moment of explosion and the second one is basically a result of radioactive fallout; though the word itself is not used. Readers are informed that they can expect to absorb a fatal dose of explosive radioactivity if they are within two thirds of a mile radius from the explosion, become sick from it at distances up to slightly over a mile, and be relatively fine beyond that.[353]

The JCS report named *The Evaluation of the Atomic Bomb as a Military Weapon* gives roughly the same information based on the Crossroads tests and analyses of bombing of Hiroshima and Nagasaki. The radiation emitted during an explosion of a bomb can kill at distances little over 1,000 yards and cause casualties at slightly less

[351] Public thinking about Atomic Warfare and Civil Defense, 213.
[352] Pondělíček, 68.
[353] Survival Under Atomic Attack, 9-10.

than double that range.[354] The FCDA worked with the best data available at the time. Since about a third of those Americans who had heard of radiation believed that it was dangerous at distance over 5 miles, it was identified as one of the areas where more education was needed.[355] Nevertheless, the civil defense materials did not present an unrealistic picture in the view of information at that time.

Similarly, the effects of surface of underwater explosion are described fairly similarly in both documents. The secret JCS report claims that an underwater burst of an atomic bomb produces lethal residual radioactivity with effects more significant than the physical destruction of the detonation itself. That is mainly because the radioactive water carrying both fission products and unfissioned material can be dangerous over large distances.[356] *Survival Under Atomic Attack* does not compare the two and does not go into so much detail, but clearly states that "after a water or underground burst a cloud of very radioactive mist or dust might form and spread, particularly downwind, injuring people who weren´t well sheltered"[357].

Grossman argues that *Project East River*, a lengthy report on non-military defense from 1952, emphasized that the importance the public ascribed to radiation among many of the bomb´s effects had to be minimized in order to reduce panic during an attack.[358] Since the report was made available only after the pamphlet in question had been published, however, it can hardly explain its treatment of the topic. The earlier Michigan University Study did find that a lot of people thought radiation was the most significant deadly effect of the weapon; among people who had heard of radiation, blast and radiation were named most often as the main killer.[359] However, the report did not confirm the hypothesis that this perception correlated with higher estimates of the bomb´s overall damage potential.[360] Furthermore, Grossman himself quotes the report on project East River stating that "the public need to be advised of the general error in this belief and acquainted with the circumstances under which the belief might be true."[361]

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[354] The Evaluation of the Atomic Bomb as Military Weapon, 23.
[355] Public thinking about Atomic Warfare and Civil Defense, 79
[356] The Evaluation of the Atomic Bomb as Military Weapon, 23.
[357] Survival Under Atomic Attack, 23.
[358] Grossman, 61.
[359] Public thinking about Atomic Warfare and Civil Defense, 64.
[360] Ibid., 85
[361] cited in Grossman, 61.

At the same time, the FCDA did not, in fact, receive all the information on radiation. The JCS report stated that "since [...] 92 percent of those within a radius of 660 yards [...] were killed by one or more of the bomb's effects, a discussion of separate effects within this range is academic."[362] Furthermore, the report concluded that mortality would have been basically the same even if the bomb had only caused radiological damage without fireball, blast pressures and other lethal effects. This conviction was based on the analysis of atomic bombing data from Japan.[363] Therefore, it can be argued that the FCDA´s effort to focus on other and more well-known lethal aspects of the bomb, was part of the attempt to conventionalize the bomb in the eyes of the public.

Furthermore, De Chant suggested removing any information about so called induced radioactivity[364] from the comic strip he had been asked to review. Referring to the *Survival Under Atomic Attack*, he wrote that "this is not a great danger. Therefore, why mention it?"[365] However, the JCS report concluded that the risk posed by such radiation can be significant for short time after the explosion. It did note that it was less important than radioactivity from other sources, but it did not reject its being dangerous completely.[366] Thus, it is possible to find individual cases of conventionalization, but not a concerted effort to minimize the overall destructive potential of the bomb.

This points to two conclusions about the information program about the dangers of the bomb for an individual. First, there was no general tendency to provide unjustifiably optimistic prospect of personal survival; there was no conscious false hope communication strategy. Second, the planners considered accurate information (i.e. the information they considered to be accurate based on the data they received) as a more potent antidote to post attack panic regardless of whether it was more or less optimistic about the destructive power of the bomb than the public. Further benefit they saw in this approach was that it would increase the willingness to participate in civil defense activities.[367] The volunteers were seen as crucial contribution of civil defense by both

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[362] The Evaluation of the Atomic Bomb as Military Weapon, 22.
[363] Ibid.
[364] Radioactivity resulting from exposure of previously stable material to radiation. <Induced radioactivity - Wikipedia>
[365] Letter to J. H. MacNiven from Charles Ellsworth, February 23, 1951, p. 2, E4-28, Box 1, RG 304, Entry 31-A, NARA.
[366] The Evaluation of the Atomic Bomb as Military Weapon, 23.
[367] Progress Report, Alert America Campaign to the National Advisory Council, FCDA, Office of Public Affairs, undated, p. 3, Alert America Convoy Exhibit, OF 1591, Feb. 1951-53, Box 1843, Official File, HST Papers, Harry S. Truman Presidential Library.

the civilian and the army planners. Taking personal steps to protect oneself was all and well, but personal survival could not be assured. The role of civil defense was not to guarantee it, but merely increase one´s chances of it, thus ensuring the national survival.

However, since the survival of each individual could not be assured and the civil defense planners freely admitted the fact, the personal survival was tied to the national survival. It was simply impossible or meaningless without it. The national survival did not only mean that there would still be organized and civilized society after the attack, but that this society will be able and willing to fight the war with the Soviet Union. After all, it was the main purpose of it to enable continuation of war by protecting the productive capacities of the nation. This civil defense strategy led to an unprecedented militarization of the family life in the United States.[368] This militarization is more than adequately described by Oakes and McEnaney.

Probably the best example of how this lesson was instilled into the American citizenry is the movie *Our Cities Must Fight*. It is a dramatization of a dialogue between two journalists who published a piece on civil defense and they are discussing the feedback they received from their readers. The editor reads aloud from one of the letters claiming that in case of an emergency the writer will abandon the city as quickly as possible. This mindset is labeled as "take-to-the-hills" mentality and thoroughly rejected. The two men in the scene acknowledge that the people writing this are generally good law-abiding citizens, but conclude that advocating fleeing the threatened zone is pretty close to treason.[369]

The movie then continues to explain how abandoning cities, thus depriving industry of its production capacities, is exactly what the enemy wants to achieve with his attack. It even rhetorically equates leaving one´s post in the workplace to desertion.[370] This is the message that was reinforced through the *Alert America!* exhibit, which toured the most significant target areas in the United States. One of them showed a text reading "to win the enemy must smash our production" with a damaged car factory in the background. Other purely textual one claimed that "trained, alert civilians will cut our casualties in half, keep our production lines going, give our armed forces a fighting chance." Another still showed a man waving his clenched fist at bombers

[368] McEnaney, 69.
[369] Our Cities Must Fight, FCDA 1951, (accessed September 16, 2020) <https://www.youtube.com/watch?v=7RNcTnvTJa0>
[370] Ibid.

leaving after an attack and exclaimed: "If we are prepared, we can come back fighting."[371]

The same words were used by J. J. Wadsworth, acting administrator of the FCDA at the time, in a letter to Dr. Raymond Allen, head of the Psychology Strategy Board.[372] The idea that home front production facilitates battlefield successes was not a new aspect in propaganda. The extent to which participation in civil defense was likened to military service, however, was much greater than in the past. The goal was for people to understand civil defense as a co-equal partner of the Armed Forces in defending the nation. This was to be achieved through developing interest in personal protection and encouraging participation in organized volunteer activities.[373]

However, some propaganda materials alluded to this partnership directly. One poster depicted a soldier and a civil defense volunteer, both grim-faced men in their respective helmet. While the soldier is peering into the distance, the volunteer watches the sky wearily but resolutely. The text reads: "Be a partner in defense."[374] This image implies more than a supporting role of civilians in a future war. It also corresponds to the idea described in Chapter 2 that the role of civil defense volunteers was to take over the tasks which would otherwise have had to be done by the military personnel.

The analysis of the NSRB´s and FCDA´s understanding of what the people believed and how the civil defense messaging should be adopted demonstrates that there was very little reassurance over the individual survival. On the contrary, fostering fear was seen as a useful tool to motivate people to participate in organized civil defense programs. These in turn would enable the civil defense organization to provide useful service alleviating the projected manpower pressure on the military. Grossman claims that "the FCDA´s fanciful world where global nuclear war is fought like World War II and where post-attack normalcy was guaranteed [was] a homespun anodyne without any scientific basis."[375] This, however, is grossly simplified statement.

While it may be correct to assume that the imagined way an atomic war would be fought really was fanciful, it was not just the FCDA´s world. All the documents on

[371] FCDA Posters (accessed September 16, 2020) <http://www.civildefensemuseum.com/artgal/trumanlib/index.html>
[372] Letter to Raymond Allen from J. J. Wadsworth, March 31, 1952, p. 1, 126-1 FCDA, Box 126, President's Secretary's Files, HST Papers, Harry S. Truman Presidential Library.
[373] Progress Report, Alert America Campaign to the National Advisory Council, FCDA, Office of Public Affairs, undated, p. 4
[374] FCDA Posters
[375] Grossman, 71.

military strategy clearly demonstrate that a prolonged conventional global conflict was expected to follow the initial nuclear exchange. Survival of the United States as a more or less organized national state was more than an image used to calm fearful citizens, it was the cornerstone of the U.S. military strategy for a possible war with the Soviet Union. Furthermore, this conclusion was based on mostly economic research and it can hardly be called homespun. This, of course, does not mean that the strategy would have worked the way it did; after all general war plans rarely do.

It is fairly possible that the military planners, hired researchers, and other experts were simply unwilling to accept the revolutionary change in warfare caused by the existence of nuclear weapons. This may have been caused by the evaluation of the effects of strategic bombing campaigns in the Second World War. Air power was seen as a revolutionary way of hitting an enemy´s homefront decisively enough to end a war long before atomic bombs drastically changed the equation. However, the USSBS showed limited results in hindering German war effort at best. Historian Richard Overy in his brilliant analysis of strategic bombing in the European theater of operation quotes one of the economists on the USSBS team: "[...] the man-hours, aircraft, and bombs 'had cost the American economy far more in output than they had cost Germany.'"[376]

The exaggeration of the strategic bombing´s efficacy, which was so prevalent before and during the Second World War, may have given way to disillusionment and underestimation of the atomic strategic bombing after the war. Fortunately, the answer to the question whether atomic war would have ended with the initial nuclear exchange if started between 1949 and 1953 is purely speculative. What the record does show, however, is that the military and also civilian planners thought otherwise. Strategic plans for military campaigns, manpower mobilization plans, and industrial mobilization plans were still prepared for the second phase of global war after the atomic strikes. If we accept that the FCDA was presenting an illusion, than the conclusion is that the illusion held sway over the overwhelming majority of the U.S. military and civilian planners.

It took thermonuclear revolution and vastly improved means of delivery, rendering air defense impossible, for the American military and civilian agencies involved in formulating the U.S. civil defense strategy to accept that no matter what measures will be taken, the initial nuclear exchange would be both the beginning and

[376] Richard J. Overy, *The Bombers and the Bombed: Allied Air War over Europe, 1940-1945* (New York: Penguin Books, 2015), 228.

the end of a war with the Soviet Union. The death of the idea of winnable war then spelled the end of the idea civil defense was workable, meaning able to ensure continuation of more or less organized society of survivors capable of sustaining war effort. This is the subject of the last part of this text.

PART III 1953-1957

Chapter 7 - The Destroyer of Worlds: Hydrogen Bomb and the Real Revolution

Three influences combined in the period between 1953 and 1957 to start changing the way the nuclear war was perceived, and thus, how civil defense was planned. The first and arguably the most important was the Soviet test of an enhanced fission bomb in 1953 and their first test of a fusion bomb with yield in megaton range in 1955.[377] The second was the change in the U.S. military posture; the Eisenhower´s New Look, economies in defense spending and the doctrine of massive retaliation. The third was the revolutionary change of the means of delivery technology, i.e. the ICBMs. This chapter deals with the first two and analyzes ways in which they affected both the civil defense strategy and also the perception of its efficacy.

Historian Andreas Wenger argues that despite the fact that some in the military establishment believed the absolute weapon had already been developed in the atomic bomb, it was the thermonuclear revolution what made the idea a nuclear war could not be won into the mainstream of national security policy. The new reality was a nuclear stalemate in which fighting a war with nuclear weapon became an absurd proposition supposing the enemy had sufficient second-strike capability.[378] This realization, however, did not occur to all the military and civilian planners simultaneously. Neither did it permeate all the agencies to the same depth. Civil defense did not disappear, but its role changed dramatically.

By the time the first hydrogen bomb was tested, it had been anticipated for years. In fact, *Survival Under Atomic Attack* mentions superbombs and hydrogen bombs. It did not deny their existence, or even the fact they could be a hundred or a thousand times more powerful than the atomic bombs, but it insisted that they were simply a scaled up version of their fission predecessors.[379] However, no serious research into the way their destructive power changed the way national security was to be protected had been conducted before the pamphlet was published. The first serious attempt appraising the ramifications of these enormously powerful weapons was the Rand corporation study from 1952.

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[377] 22 November 1955 - RDS-37: CTBTO Preparatory Commission

[378] Andreas Wenger, *Living with Peril: Eisenhower, Kennedy, and Nuclear Weapons* (Lanham: Rowman & Littlefield, 1997), 85.

[379] Survival Under Atomic Attack, 5 and 15

The comparison of the casualty estimates for a 20 kt, 5 Mt, and 25 Mt bombs are very telling as to how dramatically the hydrogen bomb really changed civil defense considerations. That is despite the fact that the researchers themselves acknowledged they had worked with conservative estimates because the expected effects of thermonuclear weapons were still highly uncertain.[380] After all, the study started late in 1951, approximately a year before Ivy Mike, the first hydrogen bomb, was tested.[381] Nevertheless, the mortality radii are simply staggering.

For each of the three bombs, the study estimates the distance from the hypocenter at which half of the people would die and the other half become casualties requiring continued care. This means that if the area had roughly the same density, approximately three quarters of those within the radius would die. For a Nagasaki sized atomic bomb, the radius was assumed to be about four fifths of a mile and the area of 2 square miles. For a 5 megaton hydrogen bomb, it was slightly over three miles for sheltered population and slightly above four for unsheltered, translating into areas of 30 and 55 square miles respectively. The largest assessed weapon was then expected to kill three quarters of people within roughly six miles radius if sheltered and more than seven if unsheltered; giving the areas of 120 and 160 square miles respectively.[382]

The reason why sheltering did not matter much is that the report considered shelters deemed adequate for protection against atomic bombs. These would not, according to the study, most likely prove sufficient in case of an attack with a hydrogen bomb with the exception of those lying on the periphery of the radius. Also, the thermal radiation released was so immense that a B-36 bomber, the only truly intercontinental bomber the U.S. had, would only have an outside chance of escaping the destruction itself. Not even the jet bombers, medium B-47 and experimental heavy XB-52, would likely be able to escape a 25 Mt bomb they delivered.[383]

The immense power of the new weapon posed problems for both delivery and passive defense. Neither the bombers, nor the shelters designed for an atomic war with fission weapons were well suited for the thermonuclear age. It is important to note how fundamentally the thermonuclear bombs changed the situation. When Grossman argues that the civil defense assumption rested on combining "two ontologies: an abstract

[380] Project Rand, *Implications of Large-Yield Nuclear Weapons*, July 10-1952, p. 3 (accessed September 16, 2020) <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB108/fire-1.pdf>
[381] Ibid., iii.
[382] Ibid., 4-7
[383] Ibid., 5.

hypothetical 'reality' and the tangible reality of conventional warfare—specifically World War II."[384] While simple comparison of a single bomb damage might lead to the conclusion that an atomic bomb is much closer to a hydrogen one than to conventional bombs, the level of casualties per a single raid demonstrates the opposite.

During the Second World War, incendiary bombs causing firestorm were perfectly capable of producing fatalities in the ranges of tens and even hundreds of thousands as evidenced by Operations Gomorrah and Meetinghouse agaisnt Hamburg and Tokyo respectively.[385] Granted, hundreds of bombers and thousands of bombs were needed to generate such carnage. However, in the late 1940s and early 1950s, neither of the two superpowers had either the number of bombers or the number of bombs to replicate these raids in size. The U.S. had only two hundred bombers to conduct the whole 30 day bombing offensive against the Moscow-Leningrad defensive area as planned in the Offtackle plan.[386] Furthermore, given that only 115 truly intercontinental bombers were available and only two groups operational in the USAF as late as 1952,[387] the U.S. capability of delivering the bomb on targets in the USSR in the early 1950s was severely limited and any sustained bombing campaign was virtually impossible without forward bases.

If they had dropped all eleven bombs, which were supposed to drop on Moscow on the first day under this plan, [388] they would have killed three quarters of people in an area of 22 square miles under ideal conditions. The firebombing of Tokyo completely burned an area of 15 square miles of the most densely populated part of the city in a one night raid.[389] Viewed through this lens, it is at least understandable why so many people in the national security community subscribed to the conventionalization of atomic bombs. The same ontology, however, becomes completely untenable in the bright light of hydrogen bombs.

Nevertheless, even the Rand corporation report still clings to the notion of possibility of national survival. It estimates that 50 bombs delivered at or near targets

[384] Grossman, 4.
[385] Overy, 136-144.
[386] Draft of JCS 1952/11, Enclosure C, Evaluation of Plans for the Strategic Air Offensive, Part 2-A, Box 167, RG 218, NARA
[387] "Commanding Officers´ Estimates of the Combat Readiness of the USAF Groups", January 17, 1952; Reports to the President from the NSC Reporting Unit, January - October, 1952; NSC File; Box 13; Truman Papers; Truman Library.
[388] Draft of JCS 1952/11, Enclosure A, Evaluation of Plans for the Strategic Air Offensive, Part 2-A, Box 167, RG 218, NARA
[389] USSBS Summary Report, Pacific War, July 1, 1946, p. 16-17 (accessed September 16, 2020) <https://www.anesi.com/ussbs01.htm,>

could "cause destruction and death on a scale which could, at a minimum, interdict our industrial mobilization for years and would, at a maximum, prevent us from carrying on a war at all."[390] Even in the face of wholesale carnage, the planners still did not consider it sufficient to conclude the war would basically be over after the initial nuclear exchange. The idea of workable civil defense had only started to wane with the emergence of hydrogen weapons. The first instinct was to adapt the existing strategy and means to new conditions. It would take time before the realization it would not be possible dawned on the American planners.

The most significant impact of the Rand Corporation study were its two recommendations on how to change the U.S. defense strategy in the thermonuclear age. The first was to build an extensive air defense system, which would, according to the report, "be worth almost any price."[391] The second was to reevaluate plans for a large scale evacuation, which had been rejected before.[392] The air defense of the United States and its implications for the civil defense will be the subject of the next chapter. The evacuation planning was arguably the most important adaptation strategy of civil defense planning to the horrifying prospect of hydrogen bomb strategic bombardment.

Nevertheless, the idea that a global conventional war would follow the first phase of the conflict, the large scale atomic bombing with hydrogen bombs, still persisted. Rand proposed creating "a war reserve of military equipment which might enable each of our major commands to fight on an austerity basis for an extended period without fresh supplies from the economy."[393] It was a tacit acknowledgment that the post-attack rehabilitation in the thermonuclear age was not going to be a short and easy process. Still, the notion of a survivable atomic strike was not rejected and neither were shelters, which could still "make sense when the H-bomb is the threat."[394]

Other military planning documents support the conclusion a nuclear war was expected to last beyond the opening atomic strikes. This includes NATO military planning in the crucial years. The military committee of NATO assumed in 1954 that while the initial atomic exchange might be such that the loser of the first phase would capitulate, it was much more likely that the conflict would continue despite the damage sustained in the first phase. What the committee expected would follow was

[390] *Implications of Large-Yield Nuclear Weapons*, 11.
[391] Ibid., 12.
[392] Ibid., 13.
[393] Ibid.
[394] Ibid.

euphemistically called readjustment and follow-up and it was recognized that the particular character of this second phase would depend on the results of the first one.[395]

Therefore, at least at the beginning of the thermonuclear age, the new weapons were not considered so powerful as to make war and victory impossible, even if at a terrible cost. Dee Garrison is at least partly correct to claim that the fateful Castle Bravo test in 1954 "marked a major transition in nuclear history. [...] the peace movement expanded, and civil defense propaganda assumed new forms."[396] However, the explosion was more of a turning point from the point of view of publicity than strategy. The test was not unexpectedly destructive, because radiation hazards had been underestimated, thus far. It was because the bomb itself was at 15 Mt two to three times more powerful than it had been anticipated.[397] The military planners still assumed that the war with the USSR would be more than a brief spasm of absolute nuclear destruction. Also, as the Chapter 9 will show, the opposition to civil defense and nuclear weapons grew very slowly between 1954 and 1957.

As mentioned above, one of the main changes in the civil defense approach in the early Eisenhower years was a change of attitude towards organized evacuation. As late as 1952, the FCDA recommended individual states to base their plans for evacuation on the assumption that no evacuation was supposed to occur before or during an attack. People were supposed to leave the area affected only after the enemy had already hit and only if there were no other methods to minimize the effects of the attack.[398] In other word, unless there was radiation contamination of the area, the survivors were expected to stay where they were and receive assistance there.

When Val Peterson became Eisenhower´s new head of the FCDA in February 1953, he almost immediately embraced the evacuation as the preferred solution. He believed that the need for mass shelter program was only necessitated by the military´s inability to give adequate tactical warning of an attack (i.e. the approaching bombers). Since the shelters considered in the previously proposed program were designed to provide safety to people about half a mile from a hypocenter of a 20 kt explosion, they

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[395] North Atlantic Military Committee Decision on M.C. 48, 4 (accessed September 16, 2020) <https://www.nato.int/docu/stratdoc/eng/a541122a.pdf>

[396] Garrison, 51.

[397] Opertion Castle (accessed September 16, 2020) <http://nuclearweaponarchive.org/Usa/Tests/Castle.html>

[398] A Report to the NSC by FCDA on Organized Evacuation of Civilian Populations in Civil Defense, June 12, 1952, p. 2, Box 35, NSC Staff Papers 1948-1961, Disaster File, White House Office, Dwight D. Eisenhower Presidential Library.

were clearly inadequate in the new thermonuclear era. Peterson surmised that if the military could provide reasonably safe guarantee of a one hour warning, vulnerable city centers and industrial areas could, with few exceptions like New York City, be vacated in time, thus rendering expensive sheltering redundant.[399]

Cost was an important consideration for Peterson, since like many other defense programs under Eisenhower, civil defense was expected to operate with lower budgets.[400] Money was also the reason why Congress accepted evacuation despite misgivings about its practicability. During series of drills and in numerous traffic studies, evacuation was found to be virtually impossible even with much more advanced warning that Peterson expected.[401] Furthermore, shelters had to be built anyway, even if not to protect against the explosion itself, but the resulting fallout, if the evacuated survivors were to have a chance. That is why, as the Rand corporation study has suggested, shelters were reexamined towards the end of Eisenhower´s first term.

While Congress never authorized the billions of dollars the FCDA had been asking for since its creation to build shelters, the Eisenhower´s plan to lower the defense spending in effect sounded death knoll to any large scale construction for the time being. So, it was exactly the moment when people within the national security community started recognizing the revolutionary nature of the thermonuclear weapons, when civil defense was financially strangled not only by the Congress, but by the executive itself.

This was more than a coincidence. While during the Truman administration, civil defense program was supposed to ensure continuing war production and mobilization, thus deterring the Soviets from attempting an atomic attack, the nature of deterrence changed dramatically during Eisenhower´s first administration. While Truman increased conventional forces in order not to be absolutely dependent on nuclear armaments in his conduct of foreign policy, his successor embraced nuclear weapons as the cornerstone of both national security and foreign policy. Andreas Wenger argues that it was more than a mere bluff and it was motivated by factors beyond fiscal responsibility.

He claims that the changes made in the U.S. security policy "were sound strategic choices in light of the technological and military realities of the time. Nuclear

[399] Statemen of Val Peterson, FCDA Administrator Before the NSC, March 31, 1953, Box 35, NSC Staff Papers 1948-1961, Disaster File, White House Office, Dwight D. Eisenhower Presidential Library.
[400] Ibid.
[401] McEnaney, 49-52.

capabilities were still relatively modest in contrast to what was to come. Nuclear war was not yet completely unthinkable and would not necessarily be tantamount to national suicide."[402] The most important reasons for such conclusion were the Soviets´ issues with delivery of weapons and their limited stockpile. Soviet thermonuclear weapon tests were more a show of future potential rather than demonstration of actual capability. Having heard a presentation on the United States vulnerability in 1953, Eisenhower became convinced that the Soviet actual capability was so weak deterrence would work and even if it failed, the United States would still win the war.[403]

However, with the rapidly growing stockpile of nuclear weapons on both sides, the assumptions underpinning such hopes began to look increasingly untenable. This was especially true for the ordinary people who did not have the benefit of Eisenhower's insight of the Soviet relative weakness. Furthermore, the growing anxiety did threaten to seriously undermine the resolve of ordinary people to fight the Soviet Union. In 1955 Nelson Rockefeller, Special Assistant to the President assembled a panel to assess the psychological aspects of U.S. strategy after the Geneva summit. Paper 11 by Ellis A. Johnson included two appendices dedicated to the defense of the continental United States and NATO respectively. The first one is not included in the declassified version, but the assumptions on the public mood in NATO countries are broadly applicable. It is likely, the conclusion in the missing appendix were not much different.

Johnson inferred that "terrible as the threat of nuclear devastation may appear to the people of the U.S., it is even more fearful to the people of Western Europe. [...] If the possibility of war must be accepted and lived with, the alternative mean appears to be a defense against the delivery of weapons sufficient to promise each man a better chance of survival."[404] He referred to anti-air defenses rather than passive defense system, but it is clear that the growing price of fighting an atomic war was affecting the acceptance of using the threat of it as a strategy less and less appealing.

Still, while the planners did expect growing casualties, they still believed in some possibility of lowering them to levels which would enable the United States to survive as an organized society. In 1955, the Killian Report recommended that the FCDA should conduct a study of expected casualties resulting from hydrogen bombs with different levels of evacuation and sheltering programs in place. These were to

[402] Wenger, 49.
[403] Wenger, 53.
[404] *Psychological Aspects of United States Strategy*, November 1955, p. 127 (accessed September 16, 2020) <https://www.cia.gov/library/readingroom/docs/CIA-RDP86B00269R000300120001-4.pdf>

allow the agency to determine an appropriate mix of evacuation and sheltering. It also suggested that a new national civil defense policy be designed.[405]

However, the emphasis on what was necessary for successful defense started changing. The report acknowledges that "for the first time in history, a striking force could have such power that the first battle could be the final battle, the first punch a knockout."[406] Already a one year before that, the report of the Net Capabilities Evaluation Subcommittee estimated that the Soviets would probably allocate as many planes and bombs as possible to destroy the U.S. retaliatory power and the urban and industrial targets would be secondary in importance.[407] Naturally, given the vastly increased destructive power of their stockpile by 1957, the devastation of the cities would still have been unimaginable.

With regard to this, the administration reconvened the participants of the Project East River to reconsider its conclusions in the light of the new weapons. The final report recognizes that given the sheer scale of destruction which can be wrought by a single bomb "the old concept of self-help in a town or city basis becomes impractical. [...] effective defense [must] be planned and conducted on a metropolitan target zone basis. [...] Plans for industrial dispersion and reduction of urban vulnerability must be keyed into evacuation and shelter plans. [...] The principle of community self-help is still valid, but the region rather than the city must become the planning unit [...]."[408] This illustrates how much the planning assumption changed, but also how in some key aspects, it was still the same. Granted, the tactics changed dramatically. The report argued that because of the greater yield, sheltering of most or all people in cities was no longer practical. At the same time, the fallout resulting from the much larger explosions meant that evacuation itself was also not the solution.[409]

However, it must be noted that the American planners did not expect the U.S. mainland would be hit exclusively with multi-megaton hydrogen bombs. After all, even

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[405] *Meeting the Threat of Surprise Attack*, Technological Capabilities Panel of the Science Advisory Committee, Volume I, February 14, 1955, p. 41, Killian Report - Technological Capabilities Panel (1), Box 16, Alphabetical Subseries, Subject Series, Records, Office of the Staff Secretary, White House Office, Dwight D. Eisenhower Presidential Library.
[406] Ibid., 5.
[407] *Report on the Net Capabilities Evaluation Subcommittee*, Enclosure 1, p. 10 (accessed September 16, 2020) <https://nsarchive2.gwu.edu/nukevault/ebb480/docs/doc%201%201954%20report.pdf>
[408] *1955 Review of the Report of Project East River*, June 5, 1957, p. 10, Civil Defense (6), Box 17, Confidential File 1953-61, White House Central Files, Dwight D. Eisenhower Presidential Library.
[409] Ibid., 14.

the United States still had not developed large multi-megaton capability by 1955.[410] Secret National Intelligence Estimate 11-2-54 estimated the total yield the Soviets would be able to deliver in 1957 using four distinct stockpile differing in their composition. It concluded that the largest theoretical destructive power of the Soviet atomic arsenal could be 108 Mt, out of which 80 would come from 1 Mt bombs. The striking power would still have been enormous, but the civil defense was expected to function as a part of a more complex system of continental defense, which would be the subject of the next chapter.

By 1957, the recommendation to revisit the shelter construction plans had been followed. The Security Resources Panel tried to estimate casualties in the U.S. for four types of attack which it thought could come in 1963 based on the percentage of the attacking force targeting cities. It was assumed the rest would be trying to hit the SAC bases and other military installations. The first attack, focusing on cities would make 65 % of Americans casualties without fallout shelters and 40 % with them. Half of U.S. citizens would be killed or wounded without shelters if the Soviets targeted predominantly military facilities and the number would drop to 18 % with shelters. Alarmingly, almost a third would still become victims even if the Soviets did not strike cities directly and the population without shelters was exposed to the fallout. Sheltering would reduce this number to 2 %. Encouragingly, if city defenses were doubled and fallout shelters provided, the casualty rate for even the heaviest attack centered on cities, would drop to a quarter of the total population.[411]

The numbers are still absolutely terrifying and, as we shall see later, the anticipations of what the post-attack society would look like had changed dramatically from the estimates in the early 1950s when only fission bombs were considered. However, shelters could still prevent approximately 45 million casualties and active defenses further 27 million even in the heaviest attack.[412] Even when calculating with not active defense, fallout shelter construction was viewed as important steps towards lowering the casualties.

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[410] *Meeting the Threat of Surprise Attack*, 10.
[411] *Active Defense & SAC Vulnerability*, Volume I of Security Resources Panel, November 27, 1957, Section C, p. 107, Security Resources Panel Vol. I (4), Box 16, Executive Secretary's Subject File Series, NSC Staff Papers 1948-1961, White House Office, Dwight D. Eisenhower Presidential Library.
[412] Based on the U.S. 1960 population of nearly 180 million (accessed September 16, 2020) <https://www2.census.gov/prod2/statcomp/documents/1961-02.pdf>

The report by the panel also calculates the cost effectiveness of certain shelter programs. The most expensive one would entail blast shelters capable of withstanding pressure of 500 psi in cities and 100 psi on the outskirts. This would cost 100 billion US dollars, or three times the Department of Defense Budget in the FY 1957.[413] Less extensive shelter programs would still cost from 45 to 55 billion dollars. Even the country wide fallout shelter program was estimated to cost staggering 25 billion dollars. While it was believed it could save as many as 50 million people from becoming casualties even in the urban focus attack with 7000 Mt of total yield, more than 100 million Americans would still be dead or injured.[414]

The FCDA reported different, but equally terrifying figures, in its report on shelter program in 1957. The reason why the two documents present different casualty estimates is that while Security Resources Panel calculated with stockpiles in early to mid 1960s, the FCDA based its numbers on a hypothetical attack in 1959. This had implications for the total yield expected, but it also meant that while SRP had expected the Soviets to use ICBMs, the FCDA report had assumed an attack with manned bombers only.[415]

They proposed a substantial national shelter program combining both blast shelters and fallout shelters worth 32.4 billion and protecting 168 million Americans.[416] The word protection, however, is questionable. The FCDA study works with the casualty estimate of 12 million resulting from blast and heat and 46 million from fallout if strategic warning was available. These would rise to 18 and 73 million respectively if only 3 to 6 hour warning was given.[417] It is highly likely that most of those 12 million casualties from blast and heat would not be protected in any case. As the Rand study concluded, sheltering only made sense on the fringes of the 50 % mortality radius of a hydrogen bomb explosion.[418]

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[413] *The Budget of the United States Government for the Fiscal Year Ending June 30,* 1957, 504-506 (accessed September 16, 2020) <https://fraser.stlouisfed.org/title/budget-united-states-government-54/fiscal-year-ending-june-30-1957-19010>

[414] *Passive* Defense, Volume II of Security Resources Panel, November 27, 1957, p. 75, Security Resources Panel Vol. II (4), Box 16, Executive Secretary's Subject File Series, NSC Staff Papers 1948-1961, White House Office, Dwight D. Eisenhower Presidential Library.

[415] *A Federal Shelter Program for Civil Defense*, NSC 5709, March 29, 1957, Annex A, p. 2, Box 35, Disaster File, NSC Staff Papers 1948-1961, White House Office, Dwight D. Eisenhower Library.

[416] Ibid., 9.

[417] Ibid., 1.

[418] Project Rand, *Implications of Large-Yield Nuclear Weapons*, July 10-1952, p. 3 (accessed September 16, 2020) <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB108/fire-1.pdf>

Special Committee on Shelter Programs evaluated the prospects of sheltering using estimates of what a nuclear exchange with the Soviet Union would look like in 1965. The three considered attack patterns were taken from a NES study considering a possible attack in 1959. It assumed a 15 minute warning, so no effect of evacuation was considered.[419] The casualty levels were equally disconcerting. Without sheltering between 67 (Attack Pattern I) and 115 (Attack Pattern III) million casualties were expected to result in the continental United States.[420] The report considered five hypothetical shelter programs, ranging from fallout shelters everywhere to 100 psi blast shelters in critical target zones and 10 psi blast shelters everywhere else. It also evaluated the FCDA proposed program described above.

The casualties dropped dramatically when each of the suggested programs was considered. However, they still remained exceedingly high and logically could not prevent large scale fallout contamination which would have prevented rehabilitation of large areas of the U.S. in any case. Fallout shelters could reduce the casualties from the most urban centered attack pattern to approximately 53 million people. The FCDA proposed program was expected to reduce it to slightly below 30 million and the most comprehensive blast shelter program to 15 million, all calculated from projected population levels and concentrations in 1965.[421]

Even the most modest program providing only fallout shelters, thus basically acknowledging that without evacuation almost everyone in and around a city center of an attacked city would die, was estimated to cost almost 25 billion dollars. The most expansive blast shelter program was almost triple that number. Even the FCDA program, which the agency itself pegged at approximately 32 billion, was expected to cost more than 50 billion.[422] So while it was still considered possible to save many Americans by sheltering, the programs which could bring the number of dead and wounded to at least theoretically manageable degree were simply prohibitively expensive. Investing in weapons which could deter an attack was seen as better than investing in protection which could only ever be partial.

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[419] *Report to the NSC by the Special Committee on Shelter Programs,* July 1, 1957, p. 8-9, Mobilization (9), Box 36, Disaster File, NSC Staff Papers 1948-1961, White House Office, Dwight D. Eisenhower Library.
[420] Ibid., 23.
[421] Ibid.
[422] Ibid., 27.

With such horrible casualty levels, the post-attack situation estimates worsened accordingly. In its report *Deterrence & Survival in the Nuclear* Age, published in November, but mostly finished before Sputnik was launched, The Security Resources Panel of the Science Advisory Committee plainly stated that "passive defense programs now in being and programmed for the future will afford no significant protection to the civil population. The protection of the United States and its population rests, therefore, primarily upon the deterrence provided by SAC."[423] The only protection the panel considered feasible was a nationwide fallout shelter program which could still protect millions of people. Heavy casualties were still expected nonetheless.[424] Grossman and Oakes are correct that it was politically important for both Truman and Eisenhower administrations to placate the suburban middle class voters.[425] At the same time, the abandonment of the city center was more of a practical necessity in the thermonuclear age.

The levels of carnage were such that the expectations of recovery or rehabilitation were dim. The report acknowledged that not enough information was available to judge the ability of the industrial production and the surviving population to return to anything resembling normalcy. The bare minimum needed was to provide necessary survival materials for six to twelve months.[426] This is the most important difference from the earlier plans which expected the nation not only to repair the most essential facilities but also to mobilize for war production almost without a delay.

As the mobilization plan from 1957 surmised, "restoration of the economy and our society will be possible and necessary."[427] This restoration, however, was conceived as national rebuilding rather than national mobilization. The plan divides the post-attack restoration into two phases, the survival phase and the reconstruction phase. Since the attack was expected to cause, at least temporarily, an almost complete paralysis of the economic system, dissolution of society into local groups and complete break of trade exchange, during the survival period, the main goals would be to dispose of the dead, care for the injured survivors, and decontamination. Even in the reconstruction period,

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[423] *Deterrence & Survival in the Nuclear Age*, Report to the President by the Security Resources Panle of the Science Advisory Committee, November 7, 1957, p. 5, Mobilization (10), Box 36, Disaster File, NSC Staff Papers 1948-1961, White House Office, Dwight D. Eisenhower Presidential Library.
[424] Ibid., 18.
[425] Grossman, 105.
[426] *Deterrence & Survival in the Nuclear Age*, 21.
[427] *Mobilization Plan D*-Minus, May 1, 1957, p. 30, Mobilization (8), Box 36, Disaster File, NSC Staff Papers 1948-1961, White House Office, Dwight D. Eisenhower Presidential Library.

which would start when labor can be dedicated to anything more than the immediate needs of survivors, the emphasis would have to be placed on programs for the future need of the nation. [428] The program does not mention any mobilization for war, because the survivors in the Soviet Union were expected to face the same harsh environment and fight for their bare lives. After the initial atomic exchange, each of the two superpowers could only try to rebuild from the ashes.

Furthermore, this already bleak prospect of the postwar society rests on the assumption that some shelters will be provided. However, the program envisaged and proposed by the FCDA, though already incomplete, was never started under Eisenhower. The first president that won the support of the Congress for a federal shelter program was Kennedy in 1961. It is telling that he did not frame the program being part of the U.S. defense strategy, but as a mere insurance policy in case deterrence fails.[429] Not even private citizens, although encouraged by their government, constructed fallout shelters in any significant numbers. By 1962, only about 0.5 % of them had built their own.[430] This would mean that the casualty levels would go up dramatically, despite the fact the Soviet Union would not be able to deliver close to 9000 Mt expected.[431]

The civil defense survived the thermonuclear age, but it lost its centrality to the U.S. strategic planning. While it was conceived in the immediate post-war period as a way of ensuring the nation would be able to continue fighting a conventional war, during the mid 1950s, it was relegated to the position of ensuring bare survival. This may seem as a distinction without a difference, because the FCDA never received anything close to the budget it needed to put in place the program it had designed in either the atomic bomb or the thermonuclear bomb period. It never received the priority it was publicly awarded. However, the simple fact that the program was ultimately scrapped does not prove it was not seen as important. Despite numerous recommendations and clear priority over shelters and civil defense, SAC´s vulnerability was never reduced until operation Chrome Dome in 1960, which maintained a part of the nuclear bombers in constant alert in the air.

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[428] Ibid., 31.

[429] Harry Beller Yoshpe, *Our Missing Shield: the U.S. Civil Defense Program in Historical Perspective* (Washington, D.C.: Federal Emergency Management Agency, 1981), 42..

[430] Joseph B. Perry, "A Note on Confidence in Civil Defense" in *The Southwestern Social Science Quarterly, 46*(2), 145. Retrieved September 17, 2020, from http://www.jstor.org/stable/42867271

[431] Hans M. Kristensen and Robert S. Norris, "Global Nuclear Weapons Inventories, 1945–2013," *Bulletin of the Atomic Scientists* 69, no. 5 (2013): pp. 75-81, https://doi.org/10.1177/0096340213501363, 78.

The shelter programs proposed by the FCDA in the early 1950s were rejected by Congress for political rather than military reasons. Since the war was expected to last beyond the initial atomic phase, they were seen as an important component of the U.S. deterrent. Neither of the two superpowers was considered to have atomic striking power capable of delivering a reliable knock-out punch. An effort to withstand the blow made sense. However, in the mid to late 1950s, the thermonuclear weapons rendered these assumptions obsolete. While it was assumed from 1950 to 1953 that the Soviets would focus on the destruction of American cities and industry in order to prevent the U.S. from full industrial mobilization, with the advent of more destructive bombs, the expected primary target was the SAC and the U.S. retaliatory capability.

The only way of war conceivable for the Soviets, the American planners thought, was if they could significantly reduce the second strike power. Neither of the two powers was expected to be able to wage war beyond the initial exchange, unless a surprise attack by one of the two sides destroyed the other side´s capacity to retaliate. The very nature of deterrence changed. General Curtis LeMay told the Scientific Advisory Board that while public mind understood the strategy of using fear of destruction of cities, the military understanding of the term was based more on the ability to effectively nullify enemy retaliation by depriving him of means of delivery.[432] This strategic thinking shifted focus from withstanding the first blow to preemption.[433] Thus, in the new strategic concept, civil defense was not an effort to produce victory, but an attempt to give the nation at least a hypothetical chance of rebuilding after an attack.

One thing that comforted the military planners at the time was the Soviets´ apparent lack in reliable delivery capability. The prospect of workable civil defense was, at least to some extent, kept alive by the increasing capacity of active defenses to destroy large numbers of enemy bombers before they could wreak havoc on American cities with thermonuclear bomb. The next chapter analyzes the continental defense structure of the U.S. and its implications for the civil defense programs.

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[432] *The Operational Side of Air* Offense, remarks by General Curtis LeMay to USAF Scientific Advisory Board, May 21, 1957, p. 2 (accessed September 16, 2020) <https://nsarchive.gwu.edu/dc.html?doc=6895254-National-Security-Archive-Doc-06-The-Operational>

[433] Wenger, 53.

Chapter 8 - Ten Mile High Fence: Continental Defense and Civil Defense

The idea that civil defense could only work in combination with military defense (i.e. anti-aircraft capabilities) was not new. As chapter 4 demonstrates, it was seen as necessary in the light of growing arsenals as early as 1952. However, both the extent to which it was put into operation under Eisenhower and the means it used were revolutionary in the U.S. history. According to historian Christopher J. Bright, about one fifth of the nuclear warheads in the American arsenal were carried by anti-aircraft missiles when Eisenhower left office in 1961.[434] Furthermore, the DEW line was improved and extended in order to allow as many bombers to be intercepted as far away from American cities as possible.

On the other hand, the public participation in the active defense, the GOC, was deactivated under Eisenhower in 1959. Active defenses were important, because they made successful civil defense at least a theoretical possibility. This chapter examines how the ten mile high fence was conceived, planned and put into operation between the years 1953 and 1957. It also analyzes the importance of the ICBM for the prospects of creating a reasonably effective air defense system of the continental United States.

After the first Soviet test of a hydrogen bomb and despite the growth in the total yield of their arsenal, the means of delivery would still limit the striking power Moscow could expect to have at its disposal. NIE 90, examining the communist bloc´s capabilities through mid 1955, concluded that while the USSR could attempt the delivery of its full stockpile, an attack on most of strategic bases and the crucial northeastern industrial area could only be achieved by sacrificing the whole bomber force on one-way missions.[435] This situation was expected to continue at least to 1956 and 1957 when the USSR was believed to be able to put new types of turbopropeller and jet bombers into service. Naturally, there was a considerable amount of uncertainty in any intelligence estimate. Some disagreed on whether the Soviet Air Force would reequip to Type 31 (Tu-95) heavy bombers or opt for jet heavy bomber Type 37 (Myasischev M-4). Nevertheless, there was a consensus that for the foreseeable future,

[434] C. Bright, *Continental Defense in the Eisenhower Era: Nuclear Antiaircraft Arms and the Cold War* (London: Palgrave Macmillan, 2016), 1.
[435] NIE-90, 5

Kremlin would have to depend on Tu-4, basically a World War II design, which was already becoming obsolescent when it was put into service in 1949.[436]

It was believed that in terms of the equipment and training, the Soviet Strategic Air Force had only reached a level comparable to the USAAF strategic bombing capability at the end of World War II by 1954.[437] Defense against such enemy using modern weaponry could be conceived. The American planners thus believed that a Soviet nuclear attack at this period would come as a result of desperation or miscalculation rather than strength. At the same time, the U.S. military recognized that its ability to defend was similarly abysmal. The preparations for continental defense had actually begun under Truman, but there had been very little real progress in actual anti-aircraft capability when Eisenhower started his first term.[438]

It may have been the necessity of developing at least some system, which could limit the scope of destruction, but the planners did see a real value in trying to build it. Despite the fact that the whole civil defense campaign was based on the premise that the bomber would always get through, the efforts to improve the situation started very early on. The project of surface-to-air missiles started in 1950 and the program of using nuclear warheads for air defense in 1951.[439] The potential of a nuclear warhead to destroy multiple targets at once and requiring much less precision of the missile meant better efficiency. In early 1953, a panel of consultants working on a report *Armaments and American Policy* briefed the NSC and recommended intensifying efforts in continental defense despite the apparent impossibility to achieve complete and full protection.[440]

This, however, was not considered a serious enough obstacle to discredit the whole program. Just as with civil defense, it was recognized that no one program or combination of programs could offer full protection. These efforts were always aimed at reducing vulnerability and not providing immunity to a nuclear attack. The Killian Report from February 1955 concluded that in order for the overall defense system to work, the active defenses must ensure high rates of kills against enemy bombers. Although it recognized serious weaknesses of the program as it was, the document

[436] Pondělíček, 40-42.
[437] *Soviet Jet Bombers*, NSC Briefing, Draft, April 27, 1954, p. 4 (accessed September 16, 2020) < https://www.cia.gov/library/readingroom/docs/CIA-RDP79R00890A000300010003-0.pdf>
[438] Bright, 6-8.
[439] Ibid.. 8-9.
[440] Wenger, 89.

considers this feasible with the nuclear weapons. Nevertheless, even high levels of kill rates would not be able to stop an attack completely, protective measures were necessary.[441]

Studies combining the mitigation effects of both active and passive defenses in their estimates were rare. The single exception is the Security Resources Panel report from 1957 described in Chapter 6, which assumed that fallout shelters and doubled defenses of cities could bring the casualty rate from 65 % to 15 %.[442] However, estimates which calculated with crewed aircraft only as opposed to aircraft and missiles were even more optimistic. Quantico Vulnerabilities Panel declared in 1955 that "the technology which gave us atomic weapons is now providing the invulnerable defense against these weapons. [...] the manned strategic bomber appears to be doomed to ineffectiveness in the face of surface to air missile technology."[443] Nuclear warhead were seen as indispensable for air defense, because given the power of the hydrogen bombs, the defenders would have to be able to destroy almost all of the attacking aircraft. An explosion of a small warhead in the sky meant the missiles did not need to be as precise and could destroy more than one plane in one strike.[444]

The panel also triumphantly observed that while "the problem of anti-missile defense is not yet solved [...] the prognosis [...] indicates that the defense [...] already exists in embryo and will probably emerge in full scale capability before the intercontinental missile itself becomes practical."[445] This is the best example of the optimism and faith that many put on technological solutions to the problem of ever more destructive bomb technology. As early as 1949, 60 % of Americans believed scientists could devise defense against the bomb in the following 10 years, three times the number of those who rejected the idea.[446] It can be linked to the more positive anticipation people had of nuclear energy. Historian Paul Boyer described this type of thinking as techno-atomic utopia.[447] Not only was atomic energy expected to power cars, planes, and provide cheap virtually unlimited energy, now one type of nuclear bomb was to save Americans from another version of it.

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[441] *The Report to the President by the Technological Capabilities Panel of the Science Advisory Committee*, 22.
[442] *Active Defense & SAC Vulnerability*, Section C, p. 107.
[443] *Report of the Quantico Vulnerabilities Panel*, June 10, 1955, Tab 3, p. 3, Russia (9), Box 63, Confidential File 1953-1961, White House Central Files, Dwight D. Eisenhower Presidential Library.
[444] Ibid.
[445] Ibid.
[446] Strunk, Spring 1950, 175
[447] Boyer, 122-131

The knowledge about the development of this technology, however, was restricted. Bright argues that it is likely that Robert Sprague, one of the most influential characters in continental defense planning, was not informed about the planned test of the nuclear anti-aircraft technology.[448] This might be the reason why he expressed concern with the whole program. The Progress Report on Continental Defense stated that the system would not be operational before 1961 adding that Robert Sprague thought it might be obsolete by that time. He urged speeding the completion of the defense system to make it operational by 1957.[449]

This was important, because in 1955, the Soviets were expected to field new type of bombers. The full scale production of jet bomber M-4 was anticipated to start in 1956 by the USAF.[450] This would give the Soviets the ability to strike without expending their entire bomber force during the first strike and also increase the chances of avoiding anti-aircraft defenses thanks to the plane´s assumed high service ceiling. Those who worked on continental defense knew it was not ready. Nevertheless, as opposed to Sprague, many believe the high kill ratio could be achieved in time.

The Quantico Vulnerabilities Panel, which was so optimistic about nuclear weapons for air defense and the possibility of defense even against ICBMs, state unequivocally that "the U.S. has the capability [...] for having an air defense system which will keep the damage to the country probably below 2 per cent and almost certainly below 5 percent."[451] It was so confident that it claimed that "if the United States makes the wise decisions [...] it can by 1960 nullify the threat to the U.S. posed by the growing Soviet stockpile and the growing Soviet bomber forces."[452] No other document was so optimistic about air defenses as to promise complete or almost complete invulnerability of the United States.

If there are some inconsistencies in how realistically civil defense was viewed between 1945 and 1953, the military defense was obviously even more contentious topic. Nevertheless, the kill rate of enemy bombers the continental defense would be able to ensure had enormous implications for the civil defense, both to the number of people it was expected to save and the means it would have to use.

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[448] Bright, 26.
[449] *Progress Report on Continental* Defense, June 14, 1955, p. 1-2 (accessed September 16, 2020) <https://www.cia.gov/library/readingroom/docs/CIA-RDP80R01443R000400050003-1.pdf>
[450] Bright, 27.
[451] *Report of the Quantico Vulnerabilities Panel*, June 10, 1955, Tab 3, p. 4.
[452] Ibid.

Security Resources Panel report from November 1957 recommended fallout shelters, but recognized that without adequate active defense system, the only possibility of reducing casualties to at least theoretically acceptable levels would be to build blast shelters. However, it still considers the combination of fallout shelters and more robust air defense as offering better protection than a complete dependency on extensive blast shelter program with no air defenses or air defense system with no shelters at all. The improved air defense system would not be as expensive as blast shelters construction and it would also prevent physical damage to buildings and industry at least in some places. Fallout shelters would also allow the air defense system to use nuclear warheads much more freely.[453]

In the first volume of the same report, the Panel recognizes that "a strong defense in the next few years will almost inevitably require a large number of nuclear warheads. [...] it seems clear that a shelter program to give fallout protection is an essential correllary [sic] to an active defense effort."[454] The issue of fallout from defensive detonations and shot down bombers added a paradoxical new threat. The defensive weaponry devised to protect the Americans represented the same hazard, albeit of much lower intensity. If enemy planes were shot down at high altitudes, there was a risk of some debris becoming radioactive and falling to the ground. Attacking planes at low altitudes meant possibility of the fireball touching the ground and creating a local fallout problem.[455]

Thus, the active defense was the crucial precondition for the shelter system to reduce casualties to acceptable levels, but since the only way to achieve the required efficiency of the anti-air capabilities was to use nuclear weapons, the shelters were also a precondition for the active defense to reach the desired kill rate. Thermonuclear weapons and defensive small yield anti-air missile warheads caused the two thus far only vaguely related systems to become largely dependent on each other´s functioning. Since no nationwide fallout shelter was instituted under Eisenhower, the atomic air defense weapons, despite their being deployed, would not function as intended. The reason why both the shelter program and, to a lesser degree, the continental defense were neglected was, as usually, money. Eisenhower promoted nuclear deterrence and

[453] *Passive* Defense, Volume II of Security Resources Panel, p. 76-81.
[454] *Active Defense & SAC Vulnerability*, Volume I of Security Resources Panel, Section C, p. 4
[455] Bright, 87-93

mass retaliation as a way of providing national security without burdening the economy in the long run.

Spending money on shelters would mean less money could be spent on air defenses and retaliatory power. Spending more on air defenses would meant the other two programs would have to economize. When discussing the proposed FCDA shelter program, a number of opinions were expressed. None could be taken as an endorsement of the present construction. Secretary of State Dulles, supported by the acting Secretary of Defense Robertson, plainly stated that the money on shelters would be much better spent on increasing the U.S. deterrent capability. President Eisenhower objected to this statement in part, adding that when both superpowers obtained all the bombs they wished for, the one with shelters could win the war, though again, the win was not meant in the traditional sense of the word. It was more about survival and a bare survival at that. He acknowledged there might be need for shelters in the future, but agreed with Dulles for the time being.[456]

The shelter program represented a meager 2.8 billion out of the total almost 37 billion required for the continental defense under the NSC 5606; less than 8 percent. The active defense was much more costly. Ground-to-air missiles were expected to cost the U.S. taxpayer 10.5 billion in the same five year period and manned interceptors further over 12 billion. Altogether, the cost of active element of the continental defense was planned at approximately 25.6 billion from FY 1956 to FY 1960.[457] This was obviously a vast outlay and it was rejected. Bright argues that the opponents "quashed [it] because they feared if it was adopted, offensive forces would have to share limited funds with air defense."[458]

By 1955 funds for the air defenses had been grown, from 776 million dollars in 1954 to 938 million a year later. However, the total amount of money spent by the air force almost doubled from 1.080 billion to 1.982 billion.[459] The offensive component of the Air Force was obviously prioritized over the defensive one. Still the proposed

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[456] *Memorandum of Discussion at the 318th Meeting of the National Security Council*, April 4, 1957, FRUS 1955-1957, National Security Policy, Volume XIX, Document 114, p. 461-462 (accessed September 16, 2020) <https://history.state.gov/historicaldocuments/frus1955-57v19/d114>

[457] *NSC 5606*, June 5, 1956, p. 16-18, Box 38, RG 273, NARA.

[458] Bright, 103

[459] Clayton K.S. Chun "Winged Interceptor: Politics and Strategy in the Development of the Bomarc Missile" in *Air Power History*, Vol. 45, No. 4 (Winter 1998): 52.

budget for air defenses under NSC 5606 was staggering 8 billion.[460] Whereas the program promised some theoretical chance of lowering casualties, it did not provide as strong a deterrent as the retaliatory capacity. If funding for the offensive component of the American air power in order to be given to the defensive one, the answer was a resounding no.

While the improving technology in bomb production provided opportunities for augmenting both defensive and offensive capabilities, the contemporary developments in delivery technology, regardless of whether aircraft or missiles, almost always promised advantages for the attacker. Jet fighter might have an advantage when intercepting a piston engine bomber or even a turbopropeller plane, but an air defense system using jet airplanes against jet airplanes could never inflict sufficient casualties to the attackers to deter or significantly lessen the severity of an attack. The Americans noted that during the Battle of Britain, the Germans suffered an attrition rate of 10 %. This might cause a problem if the attacker needs to conduct many raids to achieve success. However, since the thermonuclear weapons can achieve greater levels of destruction with just one bomb, such attrition rate was insufficient.[461]

That is why the estimates on numbers of new Soviet bombers caused so much alarm. The "bomber gap" helped to persuade the members of the Eisenhower´s administration to support the development of surface-to-air nuclear tipped missiles with warheads ranging from 7 to 20 kt.[462] It was not for the first time a Soviet advance in aviation technology, real or perceived, induced the United States to readjust its defense priorities. The same thing happened with the Tu-4 bomber in 1947.[463] In 1955, the U.S. national estimates expected the Soviets to field hundreds of heavy jet and turbopropeller bombers within two years.[464] However, a mere year later, the CIA first raised doubts about the intercontinental capability of the heavy jet M-4 bomber and then the U-2 reconnaissance flights dispelled the illusion of Soviet numbers. The Soviets had only about 50 jet bombers of all types.[465] Nevertheless, the nuclear air defense weapons were

[460] *NSC 5606*, 16.
[461] Bright, 26
[462] Chun, 53.
[463] G. Scott Gorman, "The Tu-4: The Travails of Technology Transfer by Imitation" in *Air Power History*, Vol. 45., No. 1 (Spring 1998): 26.
[464] *NIE 11-3-55*, p. 31 (accessed September 16, 2020) <https://www.cia.gov/library/readingroom/docs/1955-05-17.pdf>
[465] Chun, 52

so important that in January 1957 the President actually preauthorized their use in case U.S. and their territories and possession were attacked from either air or sea.[466]

Before the year was over, the United States faced an even more threatening situation, the missile gap. Wenger argues that the shock was profound despite the fact intelligence reports indicated that the USSR had rapidly increased the pace of its guided missile program.[467] However, the reports were more complex and the crux of the matter is the intelligence the administration officials obtained and the way they processed it. Robert Jervis claims that "policymakers say they need and want good intelligence. They do need it, but often they do not like it [...]."[468] It cannot be said that the policymakers did not like the intelligence they were receiving in this case. However, since all estimates are intrinsically ambivalent and deal with possibilities rather than facts, they enable the reader to establish as facts what in reality are mere contingencies.

The National Intelligence Estimate 11-6-54 pointed out that the Soviet increased effort to develop and put into service ICBM was the result of the improving U.S. defenses. The report concluded that while the probable extent of the jet heavy bomber program indicated the Soviets relied on the manned bombers as their primary means of delivery, the improving US continental defense system might make attacks by aircraft infeasible, the USSR would probably expand its ICBM program. The document also warned that the Soviets could have such weapon ready for production in 1960 at the earliest and if they developed and produced such weapons in large numbers before the U.S. had them, it would constitute a grave threat to the national security.[469]

A later estimate from 1957 stated that there was no evidence the USSR was developing an ICBM, but that its development had likely been a priority of the guided missile program. The earliest possible date of deployment was assumed to be 1960-61 and that was only a prototype.[470] On the one hand, the Soviet ICBMs were seen as an inevitability. On the other hand, they still came three years earlier than expected. When they did actually become a reality, the implication had been already considered. The results, however, were not unanimous.

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[466] *Authorization for the Expenditure of Nuclear Weapons*, January 17, 1957, p. 1-2 (accessed September 16, 2020) <https://nsarchive2.gwu.edu//news/predelegation/pd03_02.htm>
[467] Wenger, 155.
[468] Robert Jervis, "Why Intelligence and Policymakers Clash," in *Political Science Quarterly,* Vol. 125, No. 2 (Summer 2010): 185.
[469] *NIE-6-54*, 26.
[470] *NIE 11-5-57*, 19.

The FCDA in its revisiting of Project East River in 1955 claimed that "the intercontinental ballistic missile is very likely to become a reality in six to ten years and possibly much sooner. [...] In this connection, a word of caution is believed to be necessary because of the claim that is sometimes made that there can be no defense against this so-called ultimate weapon."[471] The report estimated the time when the ICBMs will appear much more correctly, but completely rejected the idea that these would pose an unsolvable problem for the defenses. It did, at least, acknowledge that the warning times would be much shorter and that that was something the defense planning must take into consideration.[472]

Some others believed defense against ICBMs was possible as well. General Earle E. Partridge, Commander-in-Chief of the Air Defense Command, during a Congressional testimony acknowledged that countermeasures against the new threat were not being developed, but maintained it was technically possible to acquire them. The cost for such a defense system, however, would have been staggering 61 billion dollars from 1956 to 1965.[473]

The Security Resources Panel Report from 1957 explored the feasibility of adapting the existing anti-aircraft defense system to the anti-ballistic missile one. It envisaged a complex system of long distance radars and nuclear tipped missiles. It calculated with two characteristics, 40 % single shot and 80 % single shot kill capabilities. Even with these unrealistically optimistic assumptions, however, the ballistic missile defense had serious negatives. Since the system would basically destroy nuclear warheads using different nuclear warheads deployed all around the country, risk of accidents will cause people to reject these.[474]

This may seem intuitively correct, but the fact is that nuclear anti-aircraft missiles had already been in operation by that time, and when considering publicizing their deployment, assistant to the Secretary of Defense Herbert Loper assumed that "the fact that these new weapons do provide a more effective defense against enemy nuclear attack [...] should have a positive effect on national morale and lessen apprehension

[471] *1955 Review of the Report of Project East River*, June 5, 1957, p. 4.
[472] Ibid.
[473] Chun, 53.
[474] *Active Defense & SAC Vulnerability*, Volume I of Security Resources Panel, November 27, 1957, Section V, p. D-110, Security Resources Panel Vol. I (7), Box 16, Executive Secretary's Subject File Series, NSC Staff Papers 1948-1961, White House Office, Dwight D. Eisenhower Presidential Library.0921

resulting from lack of knowledge and exaggerated estimates of enemy capabilities."[475] The air defense, whether against bombers or missiles, was seen as something people should welcome and not fear.

Nevertheless, the Killian Report was much more skeptical of the possibility to design and build a system which could effectively kill ICBMs. Granted, the document evaluated the missile as an offensive weapon for the purpose of finding it place in the U.S. atomic arsenal. The conclusions, however, are valid for the defense against such weapon regardless of who the defender and attacker are. It concluded that "its speed while approaching its target will be so great [...], and its altitude so high, that defensive measures against it will be exceedingly difficult. The time available for active defense measures would be so short that a complex and costly defense system would be required, assuming that a defensive system could indeed be developed."[476]

During the Congressional hearings led in 1956 by Democratic senator Stuart Symington, the former Secretary of the Air Force and the Director of the NSRB, the program of nuclear tipped anti-aircraft missiles was attacked because the senators believed the need for such weapons was mostly due to the new Soviet jet bombers, a threat which had been grossly overestimated. They also noted that they were rendered useless by the technological advances towards ICBMs, a threat which had been and was grossly underestimated.[477]

This was true as Joseph Califano, an aide to the President, informed Eisenhower.[478] With the benefit of the hindsight, it is quite easy to say that a defense system which would protect the U.S. against ballistic missiles was always a mirage. An effort to evaluate its feasibility can hardly be criticized, even though it may seem a fool´s errand in the light of information we have now. Nevertheless, the fact is that the Eisenhower administration made several decisions which made continental defense, and the civil defense now subsumed under it, a hollow promise.

Even before the thermonuclear revolution became a reality, it was recognized that civil defense would not be able to ensure national survival if the Soviets were

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[475] Letter to Lewis C. Strauss from Herbert B. Loper, December 18, 1956 (accessed September 16, 2020) <https://nsarchive2.gwu.edu/nukevault/ebb332/doc03.pdf>

[476] *Meeting the Threat of Surprise Attack*, Technological Capabilities Panel of the Science Advisory Committee, Volume II, February 14, 1955, p. 63, Killian Report - Technological Capabilities Panel (2), Box 16, Alphabetical Subseries, Subject Series, Records, Office of the Staff Secretary, White House Office, Dwight D. Eisenhower Presidential Library.

[477] Chun, 53.

[478] Bright, 158.

allowed to use better part of their nuclear stockpile against the U.S. unimpeded. Luckily for the American planners, they could still hope that the Soviets, realizing their limited delivery capability would not attempt to attack the American cities. Although the revelation of Tu-4 caused a shock in 1947, by early 1950s, it was already obsolete both in terms of speed and combat range.

The hundred and later a thousand fold increase in the power of Soviet weapons meant that without adequate air defense, civil defense would no longer be able to function as intended. Still, the development of the continental defense system was so slow that only few months after weapons considered the only ones capable of making it effective enough to make a difference started being deployed, they were rendered obsolete by the Soviet ICMBs.

It is important to realize not only how revolutionary the thermonuclear weapons were, but also how consequential the change in the U.S. strategic posture under Eisenhower was. While Truman decided to lessen the reliance on nuclear weapons by expanding the conventional forces, Eisenhower did almost the exact opposite. Nuclear weapons were to be used in a tactical rather than a strategic role in order to avoid costly expansion of conventional forces. This was partly because he believed the U.S. would more certainly lose the Cold War under the financial burden on the budget, and partly justified by his insistence that in case of a war, the U.S. troops would be needed home to restore order and production first anyway.[479]

The relatively austere military budgets under Eisenhower not only limited the conventional forces the U.S. Army was able to field in Europe, but they also constrained both active and passive defense appropriations. Increased protection of cities at great expense which would simultaneously decrease or even nullify the U.S. advantage in nuclear stockpile and the means of delivery did not make sense strategically.

Trying to avoid the war with the USSR had been the goal of the U.S. strategy since the end of the previous global conflict. Thermonuclear weapons, however, put a premium on avoiding a major war. The growing importance of fallout in the calculations meant that even few bombs would now not only kill millions of people in the targeted area, but also threaten large swaths of the continental United States. The dramatic change in what the word survival meant before and after the thermonuclear

[479] Wenger, 123-124.

revolution and the ICBM revolution is evidenced in the Security Resources Panel report from November 1957.

The document lists three critical survival items, water, food, and housing. The way it described how these would be provided to survivors reveals the tragically and completely changed landscape of the post-attack world. Water, the most important of the three, could probably not be supplied or the reliable supply renewed so any water would have to do. Survivors might even be moved to a different location where water is available, since the facilities would not be repaired in time. Drinking water contaminated by fallout would be necessary initially, although decontamination would have to be done in order to allow long term consumption.[480]

Food was considered less critical since the government had stockpile of grain to provide sufficient calories to the whole population for up to a year. However, the survivors would have to temporarily accept reduced standard of food consumption, which might drop to near minimum levels. Meat could still be available, because although livestock losses might be high, the losses of human beings would be proportionately higher still. Furthermore, strontium and cesium in food would pose a long term issue. If the survivors could survive six months on the existing supply, they were not expected to be threatened by starvation.[481]

Housing was not expected to be a critical problem, although shelter spaces, which would still have to be used to reduce the dose of radiation at least during the time people were not excepted to work, would be overcrowded and life in them uncomfortable.[482] This is an image of a post-apocalyptic society of survivors slowly rebuilding any social structure. It is almost impossible to imagine how even this relatively modest aspiration could be achieved, but the report still considers it possible. The goal however, is not to "come back fighting" as it was just few years before that, it is to "rebuild the nation"[483].

The survival in the atomic age and the survival in the thermonuclear age, though just years apart, looked dramatically different. The horrifying image of the devastated, contaminated, and widely depopulated country in this report contrasted starkly to the

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[480] *Passive Defense*, Volume II of Security Resources Panel, November 27, 1957, p. 17-19, Security Resources Panel Vol. II (1), Box 16, Executive Secretary's Subject File Series, NSC Staff Papers 1948-1961, White House Office, Dwight D. Eisenhower Presidential Library.
[481] Ibid.
[482] Ibid.
[483] *Passive Defense*, Volume II of Security Resources Panel, November 27, 1957, p. 21-22

previous images of post-attack society. It still had the element of crisis mastery described by Oakes[484], because rebuilding was still possible. The triumphalism of the previous constructed post nuclear war fighting nation, however, had gone. This image no longer resembles the realities of conventional warfare and the weapons are no longer more powerful conventional weapons.[485]

The civil defense assumptions of the early 1950s were quickly outpaced by the bomb development. The air defense assumptions of the mid 1950s, which were to mitigate the effects of more powerful nuclear armaments, were in turn quickly outpaced by the delivery means development. Under Truman both the casualty estimates and the general expectation of the overall atomic bombardment effect communicated to the public were in line with what the planners assumed in secret. Whether their assumptions on post-attack American society were too optimistic or not, they were genuinely held. Since the era of 1953 to 1957 can be justifiably seen as the death of the original post-war concept of civil defense, the next chapter will analyze to what an extent the dramatically changed premises of survival were communicated to the public.

[484] Guy Oakes, *The Imaginary War: Civil Defense and American Cold War Culture* (New York, NY u.a.: Oxford Univ. Press, 2010), 79-80.
[485] Grossman, *Neither Dear nor Red*, 37.

Chapter 9 - Surviving on the Fringe: Campaigns, Drills and the Death of Civil Defense

The thermonuclear weapons had a lasting impact on the way civil defense was planned; evacuation was now favored, fallout shelters, though not built, were considered in place of blast shelters of the previous era, and strategically speaking, civil defense became an insurance if all went wrong rather than a part of the deterrent. This chapter analyzes how these changes were communicated to the American public. Were they informed accurately on the hazard of fallout, number of casualties and the post-attack environment they were expected to inhabit and in which they were expected to pick up the literal pieces and start anew? Furthermore, it will examine how opposition to civil defense grew and how significant it was.

The fallout problem was the result of the thermonuclear age. Fission bombs could produce it if detonated on the ground, but that would significantly lower their ability to kill by blast and other effects. For the most part, the planning was based on the assumption that explosions of enemy weapons with yield in the range of kilotons were to be airburst, while the multimegaton warheads were anticipated to be used in surface bursts.[486] This is the reason why fallout was often deliberately omitted or minimized in the publications from the years 1951 to 1953. This, however, was no longer a possibility, because the public was made aware of the radiological dangers in a very dramatic fashion by the Castle Bravo test explosion in 1954. As also noted in the Chapter 7, the fallout itself was not unexpectedly high for a 15 Mt explosion, but the explosion itself was expected to be much smaller.[487]

The FCDA started dosing the information on dangerous radiation to people with the advent of thermonuclear bomb. Its 1954 movie *Let's Face It!* is designed to provide some basic information on the effects of thermonuclear bomb. For the first time, the piece mentions fallout among the hazards of nuclear warfare. According to the movie, evacuation would be ordered not only from the threatened cities, but also likely fallout

[486] Leo A. Hoegh, Address to the U.S. Civil Defense Council, Detroit, MI, September 5, 1957, p. 2, Civil Defense, Speech of Loe Heogh, FCDA Administration 1957, Box 2, Virgil L. Couch Papers, Dwight D. Eisenhower Presidential Library.

[487] Alison Kraft, "Dissenting Scientists in Early Cold War Britain: The 'Fallout' Controversy and the Origins of Pugwash, 1954–1957," *Journal of Cold War Studies* 20, no. 1 (2018): pp. 58-100, https://doi.org/10.1162/jcws_a_00801, 58.

areas.[488] However, it must be remembered that the debate on fallout in the U.S. at that time focuses largely on testing. It was logical that atmospheric tests were seen as the most immediate threat to human health. After all, it was miscalculation of the power of a tested bomb combined with cavalier approach to safety, which brought the attention of not only lay public, but also scientific community to the problem.[489]

The chairman of the Atomic Energy Commission, Lewis Strauss, prepared a statement which was supposed to alleviate some of the anxieties resulting from the fateful explosion. Symptomatically, he did not address the issue of fallout in the context of nuclear war, but sought to dispel fears such as tuna and other fish contamination. He also rejected the idea that the fallout´s hitting inhabited areas was a result of purpose rather than miscalculation, and ended on a happier note that the progress in military nuclear program would soon allow the AEC to focus on peaceful uses of atomic energy.[490]

However, during the time for reporters´ question "Mr. Strauss said that 'the nature of an H-bomb is that it can be made to be as large as you wish...large enough to take out a city.' Asked 'how big a city?' he replied 'Any city.'"[491] If Strauss's purpose was to ease fear of nuclear weapons, then this was certainly not the way to do it. It demonstrates that the issue of fallout was discussed in a completely different context. Furthermore, when fallout became a topic of the 1956 election when Adlai Stevenson spoke about it, the concern was again more about atmospheric tests and their impact of people's lives rather than a nuclear war.[492]

McEnaney writes that the educational program designed in the summer of 1953 sought to deemphasize the dangers of fallout. The goal was to put it into perspective with the other dangers caused by the bomb.[493] This is true, but at that time the Soviets had just exploded their first thermonuclear bomb and the majority of bombs expected to

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[488] "Let's Face It - Digital Collections - National Library of Medicine," U.S. National Library of Medicine (National Institutes of Health), accessed September 17, 2020, https://collections.nlm.nih.gov/catalog/nlm:nlmuid-9201093A-vid, 3:14.

[489] Carolyn Kopp, "The Origins of the American Scientific Debate over Fallout Hazards," *Social Studies of Science* 9, no. 4 (1979): pp. 403-422, https://doi.org/10.1177/030631277900900402, 405.

[490] 35 years ago in the Bulletin. *Bulletin of the Atomic Scientists* [online]. 1990, 46(4), 5-5 (accessed September 17, 2020). ISSN 00963402.

[491] Ibid.

[492] Jacob Darwin Hamblin, "'A Dispassionate and Objective Effort:' Negotiating the First Study on the Biological Effects of Atomic Radiation," *Journal of the History of Biology* 40, no. 1 (2006): pp. 147-177, https://doi.org/10.1007/s10739-005-6531-8, 174.

[493] McEnany, 49

fall on U.S. cities in the foreseeable future were still to be fission designs ranging in tens of kilotons. Furthermore, while the fallout of a megaton range bomb is significant, even in 1957 half of the expected casualties were caused by blast and heat and half by radiation.[494] Deemphasizing thus was not just a matter of alleviating fears, but also preparing people for a realistic, meaning expected, attack pattern and resulting dangers.

Nevertheless, whereas fallout represented a clear threat to American bodies, the FCDA did believe it could help sharpen the American minds. In a speaker's kit from 1955, it instructed the civil defense volunteers that even though the word fallout caused fear, they should be thankful for its existence. Firstly, it sparked interest in the topic, and secondly, it demonstrated that nobody, no matter where they lived, was really safe from nuclear war.[495] This grassroots publicity campaign is often overshadowed by pamphlets, movies and large scale drills. Nevertheless, it was considered much more effective in reaching the people and delivering the message.[496] The civil defense planners again hoped fear would spur Americans into action and finally make them start seriously preparing for a nuclear conflict.

It can hardly be said that the FCDA offered universally reassuring message either. In *Let's Face It*, the narrator said: "While only atomic bombs are tested in Nevada, the results can be scaled for larger, far more powerful thermonuclear bombs. A hydrogen bomb will destroy a greater area than an atomic bomb and will release more dangerous radioactive materials. But the problems of rescue caused by blast and fire along the periphery of damage remain the same. In these fringe areas, civil defense training can save many lives."[497] It was a tacit acknowledgement of the inability to survive close to the bomb and the fact that "Caldwell's vision of blast shelters now seemed ridiculously obsolete."[498] Shelters could still technically be built to withstand the explosion, but their price would be such as to make it impossible to offer protection to anything but a small fraction of the population.

However, the newly sold evacuation was also a partial solution at best. As Tracy C. Davis argues: "Evacuation was impractical because there would be so few places to

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[494] *Mobilization Plan D*-Minus, May 1, 1957, p. 29.
[495] *Civil Defense Facts*, Speakers Kit, 1955-1956, FCDA, Civil Defense Fact, Speakers kit 1955-1956, Box 2, Virgil L. Couch Papers, Dwight D. Eisenhower Presidential Library.
[496] *Public Information and Civil Defense*, Report to the FCDA on the Planning Phases of Public Information Research for the Milwaukee Target Area Survival Plan Project, p. 10 (accessed September 16, 2020) <https://www.norc.org/PDFs/publications/NORCRpt_59.pdf>
[497] Let's Face It", 11:06
[498] McEnany, 48.

go, even in the United States, and so little time to get there. As the Governor of California quipped, 'Los Angeles cannot even evacuate itself on a Friday afternoon.'"[499] McEnaney describes how evacuation would have been rendered impossible by both practical problems of moving a mass of 62 million people from target areas, and the reluctance of people to move or be moved. Moreover, adequate warning system was not connected to the sirens in the threatened cities.[500] However, even if a fraction of people could get away a few miles from the targeted area, it could save their lives. What constituted a much more significant obstacle for the evacuation to be a successful strategy was the lack of fallout shelters.

From 1953 to 1957, the estimates of casualties from fallout rose dramatically. The national fallout shelter program, which was rejected by Eisenhower's administration for budgetary reasons, was the basic precondition for evacuation to work. If there were no places to hide from the fallout, leaving one's city would most likely not change the final outcome. It would only mean death would come later. However, the materials of civil defense, contrary to what the real state of sheltering was, still insisted that "civil defense preparations are completed and ready for you [...]."[501] While this might have been true for the San Francisco area, where this particular pamphlet comes from, for the most part, it was not. Thus, it mattered little that "fallout was the new, openly acknowledged problem [...]."[502] While the FCDA and AEC did try to minimize the dangers of radiation and fallout, the most consequential lie of the FCDA was the illusion of sheltering. It was also crucial for another set of assumption civil defense relied upon, the total casualties and the effect of those on the post-attack reality.

Tracking the accuracy of the official information on casualty estimates is problematic, because, as we have seen, the estimates differed to a degree. This was due to the varying attack patterns, vague estimates of the Soviet nuclear stockpile, and different set attack dates in different documents. Many of them discussed in the previous chapters present an outlook into the 1960s and were written towards the very end of the period in question. They calculated with weapons of total yield in range of thousands of megatons having been delivered on their targets in the United States.

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[499] Tracy C. Davis, *Stages of Emergency: Cold War Nuclear Civil Defense* (Durham, NC: Duke University Press, 2007), Loc. 310.
[500] McEnany, 50-52.
[501] *It's Your Life*, The San Francisco Plan, p. 11, Civil Defense (9), Box 555, Official File 1953-1961, White House Central Files, Dwight D. Eisenhower Presidential Library.
[502] Davis, Loc. 310.

However, when analyzing the campaign and the Operation Alert drills before 1956, it is important to note how much smaller the Soviet stockpile was expected to be.[503]

When Eisenhower participated in the nationwide civil defense drill in 1955, he announced to the people that the attack, the simulation of which they had just seen, would have claimed 8 million lives and injured further 6.5 million people. Additional 25 million would have been homeless.[504] Val Peterson wrote in *Civil Defender* November 1955 issue that "8,250,000 would have died in the first 24 hours. Another staggering 8,000,000 would have died within six weeks from injuries and radiation. Another staggering 8,000,000 would have required continued medical care."[505] When comparing these figures to the NSC 5525, it is clear that they are almost identical. The secret document even estimated slightly fewer killed in the first day and about 1.5 million more injured. It is also clear that Eisenhower did not mention those 8 million injured who would have died after the first 24 hours.[506]

These numbers reflect the older assumption about the Soviet fission heavy stockpile, and while they may have been generally correct in 1954 and 1955, they would be wildly outmoded in a few years even if the shelter program had started there and then. These casualty figures are then repeated in the Twenty Fourth Intermediate Report of the Committee on Government Operation. It also criticized the AEC for their irregular and uncoordinated informing about the dangers of fallout and radiation, especially genetics.[507] This is a clear echo of the discussion started after Castle Bravo.[508] However, there was no instance of the most horrifying estimates of more than half of the American population becoming victims to nuclear war being communicated to the public. By 1957 at the latest, the civil defense program had become what Oakes, Grossman, and McEnany claim it had always been.

While the civil defense information never provided the American citizens with all the facts, there was a general consistency of the role of the civil defense in the overall strategy, the assumptions in secret materials, and the public message. This time, however, there is an evident and substantial difference in what is being assumed in

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[503] NIE-90, 4
[504] McEnany, 50
[505] *Civil Defender*, November, 1955, p. 5, Box 12, Virgil L. Couch Papers, Dwight D. Eisenhower Presidential Library.
[506] *NSC 5525*, June 30, 1955, p. 6, Box 36, RG 273, Entry 1, NARA
[507] *Civil Defense for National Survival*, Twenty Fourth Intermediate Report of the Committee on Government Operations, July 27, 1956, p. 12-13, Civil Defense (9), Box 555, Official File 1953-1961, White House Central Files, Dwight D. Eisenhower Presidential Library.
[508] Kopp, 407-408.

military planning and what the people are being told. The people did not seem to mind that much. Eisenhower inspired popular confidence in the military and more people now believed the U.S. armed forces could protect them against the Soviet atomic blow. It was the kind of "confidence that had previously dogged Caldwell and that he had tried, ironically, to erode."[509]

That Caldwell tried to undermine the confidence in the military's ability is only ironical if one believes that his only goal was to placate the nuclear fears of the American people. If one accepts that the civil defense program was considered realistic and having a real military value, this seemingly paradoxical approach can be explained easily. During Eisenhower, military defense was often used to placate these fears with little justification in the real capabilities of the system. Shortly after he took office, Eisenhower started cutting budgets for defense programs and that included continental defense. However, the August 1953 test of the Soviet first thermonuclear weapon sparked public outcry and demanded reaction. Furthermore, democrats criticized Eisenhower for not doing enough to protect the American citizens when he openly admitted that their homes are simply not safe in the air-atomic age.[510]

By the end of 1957, even the FCDA administrator emphasized military defense in public. In September Leo Hoegh gave a speech to a U.S. Civil Defense Council in which he stated that when an enemy attack is launched, the best defense is to prevent the atomic munitions from reaching their targets. Military defense was paramount. Civil defense was necessary only because even a few planes, which would always be able to avoid the defenses, could bring the unthinkable devastation.[511] However, this is a complete reversal of the premise of the previous era. Before 1953, the USAF tried to persuade the people it could only reduce the damage slightly and civil defense must bear the brunt of the attack. Now the FCDA tried to convince Americans the military can stop most planes and missiles from reaching their targets and that civil defense was a mere corollary.

The active defense did seem as the more palatable option. A theoretical possibility one's city will be spared because the bomber or missile headed towards it, is more appealing the theoretical possibility of survival in assuredly devastated landscape. This was evidenced later on, when the active defense became impossible in the mid

[509] McEnany, 65.
[510] Bright, 24
[511] Leo A. Hoegh, Address to the U.S. Civil Defense Council, Detroit, MI, September 5, 1957, p. 2.

1960s. Senator Henry Jackson who staunchly opposed shelter programs was also an ardent proponent of the Anti-Ballistic Missile systems, which would be much more expensive. Moreover, Pentagon concluded that while shooting down enemy missiles would not work, hunkering down in a shelter, to a certain extent, would.[512]

Despite the non-existent practical meaning of civil defense for the American military strategy, and virtually no practical effect on survival chances due to lack of funds, the campaigns continued for the following few years. Whereas the civil defense movies of the earlier period such as *Duck and Cover*, *Survival Under Atomic Attack*, and *The House in the Middle* are relatively well known,[513] the movies produced between 1954 and 1957 received comparatively little attention. It may be because of the long lasting trauma that many children suffered during the air raid drills.[514] It was, after all, an instructional movie for children, so it was shown to the audiences in schools repeatedly.

However, the movies such as *Frontlines of Freedom* coproduced with the Civil Defense Corp of Canada in 1955, or *Alert Today, Alive Tomorrow* released in 1956 by RKO-Telepathe Pictures, provide a valuable insight into how the civil defense message was communicated to the American people. The first one's very name evokes the concept of frontier, thus likening the contemporary situation to the early U.S. history, when its border was threatened.

Accordingly, the first scene shows Native American raids and the voluntary organization of armed men resisting them. Interestingly, the shot ends with an image of a peace pipe and the words: "Their mutual strength achieved the peace."[515] Which is ironic, because the peace in this particular case was not achieved through coexistence, but through military victory and forced removals. However, for the viewer at the time, the Native Americans served more generally as a symbol of wayward threat.

It also dedicates a part of the runtime to the explanation of how active defenses would work. Again, as with the later speech of administrator Hoegh, the military capability of protecting the nation is being promoted. However, the movie goes further. It also boasts the U.S. retaliatory capability, since the first of the series of reactions

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[512] Edward Geist, *Armageddon Insurance: Civil Defense in the United States and Soviet Union, 1945-1991* (Chapel Hill: The University of North Carolina Press, 2019), 4.

[513] The first one was even so culturally relevant half a century later that it was satirized in an episode of South Park in 1997.

[514] Garrison, 46.

[515] "Vidéos De Frontlines of Freedom," SensCritique, accessed September 17, 2020, https://www.senscritique.com/film/Frontlines_of_Freedom/24521422/videos, 1:38.

depicted in the movie is the launch of the America's own nuclear striking force, the B-52 bombers.[516] While it is a FCDA produced movie, it also glorifies the U.S. military capability, both defensive and retaliatory.

The first shorter part of the movie again focuses on the community and neighborliness framing it as a historical American virtue. It claims that the nation was "practically built on neighborly feeling."[517] It also includes a reference to the active defense component of the continental defense, but this time, there is a dramatic scene of a four engine bomber being shot down by a missile. The narrator asks: "Modern science has provided bombers which can span continents and oceans, guided missiles are expected to fly at supersonic speeds. Bombers can deliver the H-bomb. Missiles may have H-bomb warheads. Can the defense always stop them as in this test?"[518] The second part of the clip focuses on recruitment effort and explains how people can volunteer.

Both these movies, as well as Hoegh's speech, indicate that there was a conscious effort to promote civil defense not as an independent activity or service, but as a part of the continental defense system of the United States. While under Truman the FCDA complained that the public's trust in the possibility of military defense undermined its recruitment effort, under Eisenhower, it actively tried to stimulate this kind of public's trust. Movies, however, were not the only and arguable not even the most effective channel through which civil defense information was delivered to the ordinary Americans.

As the report based on a questionnaire survey conducted in Milwaukee at the time suggested, the mass media, while effective enough in imparting information on people, were mostly incapable in inducing change in the behavior of adult persons. The report concluded that while people generally expressed understanding for the necessity of civil defense, but that this understanding did not lead to their increased participation rates. Personal contacts were proposed as more effective alternative.[519]

That is why both small and large scale drill of civil defense played such an important role in this period. While most authors, logically, focus on the *Operation Alert* series of nationwide drills, for many Americans, these were probably not their first civil defense exercises. Administrator Peterson informed James S. Lay, Jr., the

[516] Ibid, 8:14
[517] *Alert Today, Alive Tomorrow!*, 2008, https://www.youtube.com/watch?v=c3ZnNsVyWMA, 01:10.
[518] Ibid, 2:25
[519] *Public Information and Civil Defense*, 10-17

Executive Secretary to the NSC, that in 1952 there had been "minimum of 163 exercises involving public participation. A total of over 39 million persons took part. There were, in addition, 204 command-post specialized exercises. No inquiry with respect to such exercises was undertaken covering the year 1953, but press report clearly indicated a considerably greater number, involving the participation of millions more Americans. The proposed nation-wide exercise will, therefore, not be expected to have any dramatic and startling impact on the American people."[520]

Oakes argues that these exercises were staged as plays and provided both exercise and drama.[521] Grossman adds that they provided social control the Truman administration insiders considered necessary for their national security policy.[522] McEnaney at least acknowledges the exercises were used to determine problems with the evacuation policy.[523] However, the Milwaukee report suggests that there was another motive. Such activities were good at fostering precisely the type of local contacts the psychologists thought were necessary for the success of the civil defense campaign, as noted above. Moreover, Peterson himself did not expect any kind of morale boosting or any other significant influence on the nation.

In 1955, the FCDA complained that the public mood had changed somewhat. Apathy had been replaced, to certain extent, by worries about the new thermonuclear weapons and the civil defense´s ability to mitigate this new threat. The document argued new emphasis had to be given to obtaining public understanding and participation.[524] Another problem was that "exceedingly rapid technological developments in the field of nuclear weapons in the past and contemplated in the foreseeable future make it increasingly clear that civil defense is a national problem [...] and that in the interests of national survival the Federal Government must assume a larger responsibility, particular in direction and control over the civil defense activities of the several States."[525]

So it does seem that the nationwide exercises were a tacit acknowledgment of the profound impacts of thermonuclear revolution. It would be a logical step since the administration recommended using enlarged target zones for the planning purposes.[526]

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[520] Memorandum to James S. Lay, Jr. from Val Peterson, February 24, 1954, Box 35, Disaster File, NSC Staff Papers 1948-1961.
[521] Oakes, *Imaginary War*, 85.
[522] Grossman, *Neither Dead Nor Red*, loc. 69.
[523] McEnany, 51.
[524] NSC 5525, 13.
[525] Ibid, 11.
[526] see chapter 7

The Operation Alert, just as civil defense itself, was many things to many people. Although Eisenhower and Dulles had clearly prioritized retaliatory power as a strategy for defense, others still believed in its feasibility and necessity as evidenced by the fights over shelter program and active defenses budget.

Ironically, the exercise which should have helped the agency to elicit more popular consent for its activities, led to the first organized and publicized protests against civil defense and by extension the nuclear arms race that necessitated it. 1955 marked the first year when 28 protestors from the War Resisters League, Peacemakers, and Catholic Worker Movement gathered in New York to voice their opposition to a drill held there. From then on, the protests continued annually until the drill itself was discontinued in 1961.[527]

While this was still a far cry from a widespread movement against nuclear weapons, it was a significant moment. To a certain degree, this represented the true beginning of the end of civil defense as a meaningful strategic program. This does not mean that civil defense activities and planning ceased. However, the plans of meaningful civil defense which could still save millions of Americans from dying in a nuclear war suffered a heavy blow with the advent of thermonuclear missiles. This meant that its strategic importance was basically evaporated by the fireballs of thermonuclear weapons tested by the U.S. and the Soviet Union. This relegation to a public morale booster eventually meant that it could no longer serve that role, either.

Historian Edward M. Geist argues that there in fact was what he calls a window of survivability in the early to mid 1950s. However, the thermonuclear revolution did not only make the weapons much more powerful, but it also made them much cheaper and thus plentiful. Together with the revolution in the means of delivery, it posed insurmountable problems for the combination of active and passive defenses designed to cope with dozens and lower hundreds of kiloton bombs.[528]

Some measures were seen as reasonable and having some effect. Evacuation and sheltering, together with active defense utilizing the same nuclear weapons it was intended to protect from, was promoted together as the means to at least limit the damage, if not to win the war. The campaigns promoting these three things, however, collapsed entirely, when all three assumptions were undermined at the same time.

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[527] Davis, Loc. 1031-1062

[528] see Geist, *Armageddon Insurance: Civil Defense in the United States and Soviet Union, 1945-1951*, 53-96

Since no federal shelter program was forthcoming, the idea of sheltering was simply not possible. People noticed. Without fallout shelters of sufficient capacity evacuation would have been largely a futile gesture. Those who would have managed to leave the cities and target areas in time, would have mostly died of radiation sickness due to the fallout. Not that the life of the survivors in the shelters would have been much better and many would have struggled just to manage to find water and food that would not have ultimately killed them. The ICBMs then virtually guaranteed the delivery of all bombs on targets, further diminishing the survival chances and also the possibility of rebuilding.

Even people who supported the civil defense programs took note of these developments. W. E. Sturgeon, the he editor-in-chief of the national magazine *Civil Defender*, local civil defense director and dedicated advocate of preparedness decided to cease the publication. Its final issue was, quite symbolically, December 1957-January 1958. He wrote a scathing editorial and its first paragraph could easily be read as an epitaph of civil defense.

> "With this issue, our staff brings to an end its effort to publish a national civil defense magazine. This had been a difficult decision to make. Certainly, nothing has been more necessary than a mustering of our home front forces to meet the threat of Russia's military and psychological offensive—and people can be better mobilized when they are drawn together through a medium such as CIVIL DEFENDER. However, the mere possession of desire, and the expenditure of hours, are not a complete substitute for funds, and simply stated—we are broke. Like the defense program itself, we have run out of gas, making only empty gestures while hoping for a miracle that would put us back in business."[529]

In the end, the reason why civil defense died were not the people who protested it on their pacifist moral persuasion. It died of neglect, lack of funding, and because people who had been dedicated to it had lost all hope short of a miracle. It is ironic that the program which had always striven to attract more people to the cause in the end lost those who had always believed in it.

[529] A Miracle is Needed, in Civil Defender, December 1957-January 1958, Box 13, Virgil L. Couch Papers, Dwight D. Eisenhower Presidential Library.

Conclusion

The atomic-air age caused a profound change in the strategic position of the United States. No longer able to rely on the two oceans separating it from Eurasia providing security against an enemy attack, the US government had to find a way to protect the citizens. Moreover, due to the power of a single bomb even a few enemy bombers could wreak sufficient havoc to effectively defeat the US with the first attack. The response was a substantial mobilization of the American society conducted mainly through civil defense programs. If the citizens became targets, they could also become soldiers.

However, that this program was chosen in 1950, was not preordained and inevitable. Militarization and civil defense had been proposed by the Armed Forces before, but their pleas had fallen on deaf ears with Truman. His administration resisted a substantial propaganda campaign and volunteer recruitment effort and only changed its stance after the Soviet Union tested its first atomic bomb in August 1949. Before that, fostering hopes that an international control of atomic weapons could be achieved was the primary means of alleviating the Americans´ anxiety about a possible nuclear war.

This does not mean that civil defense was not being contemplated and planned. Military planners devised substantial and rather detailed blueprints for how civil defense against an unconventional attack by the enemy should be prepared. Their recommendations were made public in Bull and Hopley reports, but their planning was much more detailed and done mostly in secret. The basic assumptions behind sheltering, mobilization, and volunteer civil defense corps used by the military between 1945 and 1948 were accepted by the NSRB, the first civilian agency to address the issue of civil defense.

Neither the military establishment, nor the NSRB cared about the psychological and moral conditions for support of the US foreign policy at that time, which is what Grossman, Oakes, Masco, and McEnaney claim. First of all, that support was exceptionally high from a historical perspective, which the administration realized. Second of all, their focus was on ensuring more or less seamless transition from a peace time economy to war time production, ensuring sufficient manpower for both the Armed Forces and the critical war industries. Although possibly the most significant, an enemy atomic attack was by far not the only obstacle to achieving this.

The first period from the end of the Second World War to the first Soviet atomic bomb test were the formative years of the civil defense. Planning under the auspices of the FCDA led by Millard Caldwell was conducted along the same lines. Stuart Symington, former head of the Department of the Air Force and then NSRB, ensured that the military imprint on the civil defense outlived the transition to a civilian agency. His close cooperation with Caldwell and the fact that key members of the civil defense staff from NSRB joined the newly formed FCDA[530] meant that this continuity was not broken with the formation of the new agency.

If the most important goal of the FCDA had been to dissipate the fear of a nuclear war, their campaigns and policies would have made little sense. Strengthening the preconceived notion of the majority of Americans that the military would be able to protect American cities in case of a conflict with the USSR, would have been more productive. Instead, the FCDA fought this illusion vehemently and promoted the sense of vulnerability. Thus, the militarization was not the means to reduce fear and panic. The opposite was the case; the fear was the basic precondition for a sufficient number of Americans to voluntarily militarize their everyday lives through participating in civil defense volunteer efforts.

In the early 1950s, the fear of an imminent conflict with the Soviets was arguably the highest in the whole period in question. This was true for both the public and the military planners. The possibility of the Korean War igniting a much larger conflict was taken very seriously. At the same time, limited stockpiles and delivery methods meant that any possible Soviet strike would basically be an all-or-nothing endeavor. It was feared that the breakdown of the national morale caused by even a few explosions would prohibit the US from prosecuting the war even if the physical damage had been manageable.

That is also why the estimates of tens of millions of casualties resulting from a potential enemy atomic attack were freely distributed to the public. Scared population was a population much more willing to accept levels of militarization previously unseen in the US since the end of the Civil War. Militarized population was much more likely to withstand the shock of atomic bombing and sustain the continuing war effort. When investigating the civil defense in the USSR, the American planners noted that its strategy was not to talk about the atomic bombs so as not to scare the citizenry. They

[530] Jerry Wadsworth, who also served as the acting head of the FCDA from November 1952 to February 1953, is a good example-

assumed that while this might have been more effective for keeping the people calm in the peacetime and immediately before an attack, it would also have made them more susceptible to shock and panic after it. The American strategy was deliberately the exact opposite trading mollification of the population in peacetime for shock resilience in wartime.

The military value of resilient population gradually decreased proportionately to the increasing capacity of nuclear weapons to cause a shocking amount of deaths and damage. For a time between 1953 and 1955, active defense was seen as a possible remedy to the situation. If only a fraction of enemy planes reached their targets, the overall devastation could still be kept at manageable levels despite the almost complete annihilation of the areas actually hit. Nevertheless, protecting the retaliatory capacity (i.e. the Strategic Air Command installations) became more important than protecting the cities as a deterrent to an attack. Demonstration of the resolve to fight even after an atomic attack became irrelevant in the enemy´s strategic calculation.

That does not mean civil defense became completely unthinkable; fallout shelter were still seen as necessary to help with the post-war rehabilitation. However, the financial requirements of the program were never met. Eisenhower´s decision to reduce the deficit meant that shelter construction would have had to be done at the expense of other programs in national defense. Decreasing chances the enemy would risk an attack was preferable to increasing the number of people who could survive said attack. While under Truman, civil defense spending was opposed in the Congress, under Eisenhower, its budget was cut already at the executive level at the beginning. The final nail in the coffin of practicable civil defense was the launch of Sputnik. It made any kind of active defense impossible, thus ensuring the devastation would be complete.

The FCDA itself did not survive long after that. The agency was disbanded in 1958. Civil defense drills continued throughout the remainder of the 1950s against growing opposition with the last Operation Alert conducted in 1961. This marked the end of federal civil defense drills with citizen participation. Drill in schools, workplaces, and government offices continued, but had much smaller impact on the population as a whole. The militarization of the American society through civil defense had three distinct stages corresponding to the three parts of this dissertation.

The first one was a planning phase when civil defense was not a matter of great public interest; there were not campaigns, no drills and no dedicated federal agency. The planning was done under the auspices of the military. In the second phase, these

plans were put into practice by the newly found FCDA; drills, campaigns and great volunteer recruitment effort characterized this period. The third phase was a gradual decline in the practical value of civil defense. Most of the statements Oakes and his followers use to prove the planners themselves did not believe in civil defense come from this period. In this respect, they are right it was retained for its propaganda value. However, the honest effort to attain the goal of building a functioning civil defense in the first two phases undermined the attainment of the psychological goal of civil defense in the third phase. However, this did not lead to the collapse of support for nuclear deterrence or the American involvement in the world.

The early Cold War represents an unprecedented level of militarization of American society. Civil defense volunteers and the Ground Observer Corps attracted millions of regular Americans who dedicated part of their leisure time to training for an atomic attack or watching the skies for enemy bombers which could deliver such attack. Although the only the latter was actually organized by the military, both organizations had been envisioned within the Department of Defense and the establishment of both was sought by the Armed Forces because they were seen as having practical value.

It was the military who had been pushing Truman to create a federal agency dedicated to civil defense. It was the military who had planned the civilian participation in a hypothetical atomic war effort. It had even considered giving some of the civil defense volunteers military training and using them for maintaining public order after an attack, freeing more soldiers for fighting. Despite its being ostensibly a civilian affair, civil defense before 1953 actually catered to the needs of the Armed Forces. It evolved with together with the US military strategy.

In the end, what civil defense adaptations survived and which did not was not determined on the battlefield, because the United States fortunately never became an atomic battlefield. In this respect, the success of a certain adaptation or organism[531] was determined by the competition among the adaptations and organisms within the United States rather than the confrontation with the USSR. In the end, civil defense as a war winning strategy was defeated by the deterrent forces buildup. As an essential part of a military strategy, it was practically dead. The psychological goals gained primacy, but it also must be noted that with the decline in military usefulness, the campaigns became more haphazard a sporadic.

[531] plans and and institution

Literature and Sources

Books

Baldoli, Claudia, Andrew Knapp and Richard Overy, eds. *Bombing, States and Peoples in Western Europe, 1940-1945.* New York: Continuum, 2011.

Boyer, Paul and Tom Engelhardt, *By the Bomb´s Early Light: American Though and Culture at the Dawn of the Atomic Age*. Chapel Hill: University of North Carolina Press, 1994.

Bright, C. *Continental Defense in the Eisenhower Era: Nuclear Antiaircraft Arms and the Cold War*. London: Palgrave Macmillan, 2016.

Davis, Tracy C. *Stages of Emergency: Cold War Nuclear Civil Defense*. Durham, NC: Duke University Press, 2007.

Doherty, Thomas Patrick. *Cold War, Cool Medium: Television, McCarthyism, and American Culture*. New York: Columbia University Press, 2003. Kindle edition

Friedberg, Aaron L. *In the Shadow of the Garrison State: America's Anti-Statism and Its Cold War Grand Strategy*. Princeton, NJ: Princeton University Press, 2011.

Garrison, Dee. *Bracing for Armageddon: Why Civil Defense Never Worked*. Oxford: Oxford University Press, 2006.

Geist, Edward. *Armageddon Insurance: Civil Defense in the United States and Soviet Union, 1945-1991*. Chapel Hill: The University of North Carolina Press, 2019.

Harlow, Giles D. *Measures Short of War: the George F. Kennan Lectures at the National War College, 1946-47*. Washington, DC: National Defense Univ. Press, 1991.

Hogan, Michael J. *A Cross of Iron: Harry S. Truman and the Origins of the National Security State, 1945-1954*. Cambridge: Cambridge Univ. Press, 2010.

Krugler, D. *This Is Only a Test How Washington D.C. Prepared for Nuclear War*. New York: Palgrave Macmillan US, 2006.

McEnaney, Laura. *Civil Defense Begins at Home: Militarization Meets Everyday Life in the Fifties*. Princeton, NJ: Princeton University Press, 2000.

Merridale, Catherine. *Ivan's War: Life and Death in the Red Army, 1939-1945*. New York: Picador, 2007.

Mueller, John E. *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda*. New York: Oxford University Press, 2012.

Oakes, Guy. *The Imaginary War: Civil Defense and American Cold War Culture*. New York, NY u.a.: Oxford Univ. Press, 2010.

Overy, R. J. *The Birth of the RAF, 1918: the World's First Air Force*. London: Penguin Books, 2019.

Overy, Richard J. *The Bombers and the Bombed: Allied Air War over Europe, 1940-1945*. New York: Penguin Books, 2015.

Overy, Richard J. *The Bombing War: Europe 1939-1945*. London: Allen Lane, 2013.

Ross, Steven T. *American War Plans, 1945-1950*. London: Cass, 1996.

Sloan, Elinor C. *Revolution in Military Affairs*. Montreal: McGill-Queen's University Press, 2002.

Weart, Spencer R. *Nuclear Fear: a History of Images*. Cambridge, MA: Harvard University Press, 1988.

Wenger, Andreas. *Living with Peril: Eisenhower, Kennedy, and Nuclear Weapons*. Lanham: Rowman & Littlefield, 1997.

Yoshpe, Harry Beller. *Our Missing Shield: the U.S. Civil Defense Program in Historical Perspective*. Washington, D.C.: Federal Emergency Management Agency, 1981.

Zubok, V. M. *A Failed Empire the Soviet Union in the Cold War from Stalin to Gorbachev*. Chapel Hill: University of North Carolina Press, 2007.

Theses

Pondělíček, Jiří "A Fearsome Ally: Public Image of the USSR in the US 1945-1953." MA Thesis, Charles University in Prague, 2014.

Journal Articles

Barton J. Bernstein, "The Quest for Security: American Foreign Policy and International Control of Atomic Energy, 1942-1964" in *The Journal of American History*, Vol. 60, No. 4 (March, 1974), 1003.

Clayton K.S. Chun "Winged Interceptor: Politics and Strategy in the Development of the Bomarc Missile" in *Air Power History*, Vol. 45, No. 4 (Winter 1998), 52.

Clymer, Kenton. "The Ground Observer Corps: Public Relations and the Cold War in the 1950s." *Journal of Cold War Studies* 15, no. 1 (2013): 34–52. https://doi.org/10.1162/jcws_a_00307.

Cuff, Robert. "Ferdinand Eberstadt, the National Security Resources Board, and the Search for Integrated Mobilization Planning 1947-1948." in *The Public Historian*, Vol. 7, No. 4 (Autumn, 1984), 37.

Douvan, Elizabeth, and Stephen B. Withey. “Some Attitudinal Consequences of Atomic Energy.” *The ANNALS of the American Academy of Political and Social Science* 290, no. 1 (1953): 108–17. https://doi.org/10.1177/000271625329000114.

Peter Galison, "War Against the Center", in *Grey Room*, No. 4 (Summer, 2001), 29.

G. Scott Gorman, "The Tu-4: The Travails of Technology Transfer by Imitation" in *Air Power History*, Vol. 45., No. 1 (Spring 1998) 26.

Hamblin, Jacob Darwin. “‘A Dispassionate and Objective Effort:’ Negotiating the First Study on the Biological Effects of Atomic Radiation.” *Journal of the History of Biology* 40, no. 1 (2006): 147–77. https://doi.org/10.1007/s10739-005-6531-8.

Farish, Matthew. “The Ordinary Cold War: The Ground Observer Corps and Midcentury Militarization in the United States.” *Journal of American History* 103, no. 3 (2016): 629–55. https://doi.org/10.1093/jahist/jaw327.

Janis, "Psychological Problems of A-bomb Defense," in *Bulletin of Atomic Scientists*, 6:8-9, 262

Robert Jervis, "Why Intelligence and Policymakers Clash," in *Political Science Quarterly,* Vol. 125, No. 2 (Summer 2010): 185.

Kopp, Carolyn. “The Origins of the American Scientific Debate over Fallout Hazards.” *Social Studies of Science* 9, no. 4 (1979): 403–22. https://doi.org/10.1177/030631277900900402.

Kraft, Alison. “Dissenting Scientists in Early Cold War Britain: The ‘Fallout’ Controversy and the Origins of Pugwash, 1954–1957.” *Journal of Cold War Studies* 20, no. 1 (2018): 58–100. https://doi.org/10.1162/jcws_a_00801.

Kristensen, Hans M., and Robert S. Norris. “Global Nuclear Weapons Inventories, 1945–2013.” *Bulletin of the Atomic Scientists* 69, no. 5 (2013): 75–81. https://doi.org/10.1177/0096340213501363.

Oakes, Guy. "The Cold War Conception of Nuclear Reality: Mobilizing the American Imagination for Nuclear War in the 1950s" in *International Journal of Politics, Culture, and Society*, Vol 6, No. 3 (Spring, 1993)

Oakes, Guy and Andrew Grossman. "Managing Nuclear Terror: The Genesis of American Civil Defense Strategy" in *International Journal of Politics, Culture, And Society*, Vol. 6, No. 3 (Spring, 1992)

Kristensen, Hans M., and Robert S. Norris. “Global Nuclear Weapons Inventories, 1945–2013.” *Bulletin of the Atomic Scientists* 69, no. 5 (2013): 75–81. https://doi.org/10.1177/0096340213501363.

Perry, J. (1965). "A Note on Confidence in Civil Defense." *The Southwestern Social Science Quarterly, 46*(2), 141-145. Retrieved September 17, 2020, from http://www.jstor.org/stable/42867271

Marc Peter, Jr. "Lessons from the Last War" in *Bulletin of Atomic Scientists*, August-September 1950

Rubio-Campillo, Xavier and Francesc Xavier Hernández Cardona, "Evolutionary Approach to Military History" in *Revista Universitaria de Historia Militar*, Vol. 4 (January, 2014) Accessed June 10, 2021 <https://www.researchgate.net/publication/262002933_An_evolutionary_approach_to_military_history>

Strunk, Midlred. "Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 12, No. 1 (Spring, 1948)

Strunk, Midlred. "The Quarter´s Polls" in *The Public Opinion Qaurterly*, vol. 12, no. 2 (Summer, 1948)

Strunk, Midlred. "The Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 12, No. 3 (Autumn, 1948)

Strunk, Midlred. "The Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 12, No.4 (Winter, 1948-1949)

Strunk, Midlred. "Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 13, No. 3 (Autumn, 1949)

Strunk, Midlred. "The Quarter´s Polls" in *The Public Opinion Quarterly,* Vol. 13, No. 1 (Summer, 1949)

Strunk, Midlred. "Quarter´s Polls" in *The Public Opinion Quarterly*, Vol. 13, No. 4 (Winter, 1949-1950)

Arthur J. Vidich, "Atomic Bombs and American Democracy" in *International Journal of Politics, Culture, and Society*, Vol. 8, No. 3. (Spring, 1995), 499.

Kenneth P. Werrell, "The Strategic Bombing of Germany in World War II: Costs and Accomplishments" in *The Journal of American History*, Vol. 73, No. 3 (December, 1986), 709.

Ken Young, "US ‘Atomic Capability’ and the British Forward Bases in the Early Cold War," in *Journal of Contemporary History,* 42, no. 1 (Jan, 2007): 19.

Primary Sources and Archival Collections

CREST, CIA Database

NARA, College Park, MD

NATA, Dwight D. Eisenhower Presidential Library, Abilene, KS

NARA, Harry S. Truman Presidential Library, Independence, MO

National Security Archive, George Washington University, Washington, D.C.

35 years ago in the Bulletin. *Bulletin of the Atomic Scientists* [online]. 1990, **46**(4), 5-5 (accessed September 17, 2020). ISSN 00963402.

Gallup Poll #375, question 2, July 25, 1946. <https://institution.gallup.com/documents/questionnaire.aspx?STUDY=AIPO0375>

The New York Times, June 15, 1946

The New York Times, January 5, 1947

University of Michigan. Survey Research Center. (1951). *Public thinking about atomic warfare and civil defense: a study based upon an intensive interview sample survey of people in eleven major cities, September-October 1950.* Ann Arbor.

Movies

"Alert Today, Alive Tomorrow!" Youtube, Accessed September 17, 2020. https://www.youtube.com/watch?v=c3ZnNsVyWMA.

“Let's Face It - Digital Collections - National Library of Medicine.” U.S. National Library of Medicine. National Institutes of Health. Accessed September 17, 2020. https://collections.nlm.nih.gov/catalog/nlm:nlmuid-9201093A-vid.

"Our Cities Must Fight." Youtube. Accessed September 16, 2020 https://www.youtube.com/watch?v=7RNcTnvTJa0

“Victory through Air Power : Walter E Disney : Free Download, Borrow, and Streaming.” Internet Archive. Accessed September 17, 2020. https://archive.org/details/VictoryThroughAirPower.

“Vidéos De Frontlines of Freedom.” SensCritique. Accessed September 17, 2020. https://www.senscritique.com/film/Frontlines_of_Freedom/24521422/videos.