

“ONLY AS STRONG AS WE ALL MAKE IT:” THE LIMITATIONS OF FARGO’S CIVIL
DEFENSE DURING THE EARLY COLD WAR (1950-1964)

A Thesis
Submitted to the Graduate Faculty
of the
North Dakota State University
of Agriculture and Applied Science

By
Aaron Robert Rudebusch

In Partial Fulfillment of the Requirements
for the Degree of
MASTER OF ARTS

Major Program:
History

April 2022

Fargo, North Dakota

North Dakota State University
Graduate School

Title

“ONLY AS STRONG AS WE ALL MAKE IT:” THE LIMITATIONS OF
FARGO’S CIVIL DEFENSE DURING THE EARLY COLD WAR (1950-
1964)

By

Aaron Robert Rudebusch

The Supervisory Committee certifies that this *disquisition* complies with North
Dakota State University’s regulations and meets the accepted standards for
the degree of

MASTER OF ARTS

SUPERVISORY COMMITTEE:

Mark Harvey

Chair

Angela Smith

Thomas Ambrosio

Approved:

5/20/2022

Date

Dr. Mark Harvey

Department Chair

ABSTRACT

In this thesis, I argue that civil defense failed to take hold in the United States because it required local communities to take responsibility for protective measures. Fargo, North Dakota provides a case study for this analysis. The first section examines how Fargo adopted many practices from federal, state, and municipal civil defense organizations in the early 1950s, but struggled to implement them due to volunteer shortages. The second section explains how the hydrogen bomb forced officials to revise civil defense policies. It also details efforts by congressional and private bodies to increase federal responsibility for civil defense. The third section covers Fargo's lack of response to the Berlin and Cuban Missile Crises, focusing on the unwillingness of Fargoans and their government to invest in civil defense. I conclude that today's policymakers should recognize the limitations of making local communities responsible for policy implementation.

TABLE OF CONTENTS

ABSTRACT	iii
INTRODUCTION	1
CHAPTER 1. THE EARLY COLD WAR: FARGO EMBRACES CIVIL DEFENSE.....	7
Citizens are Responsible for their Own Protection	9
It's Just a Really Big Bomb.....	12
Civil Defense Offers Simple and Effective Protection	23
What Fargo Did: A Case Study in Early Civil Defense	31
Limitations in Fargo's Civil Defense	41
Conclusion	50
CHAPTER 2. THE HYDROGEN BOMB AND THE END OF "DUCK AND COVER"	52
The Eisenhower Administration Shuns Civil Defense	53
The Hydrogen Bomb Leads to Evacuation	55
The Bravo Test Reveals the Fallout Threat	63
The FCDA Struggles to Counter Fallout.....	66
Congress Investigates Civil Defense: The Kefauver Hearings.....	72
Congress Investigates Civil Defense: The Holifield Hearings.....	75
The Gaither Report Supports Civil Defense Reform.....	83
Eisenhower's 'New' Civil Defense	88
Conclusion	92
CHAPTER 3. BERLIN AND CUBA: FARGO FAILS TO PROTECT ITSELF FROM NUCLEAR CRISES.....	93
Divided Responsibilities: The North Dakota Plan	94
Fargo's Lackluster Response to Kennedy's First Call for Civil Defense.....	97
Fargo's Actions after Kennedy's Second Call for Civil Defense	107
Fargo Unites Against the Flood of 1962	117

Fargo During and After the Cuban Missile Crisis	121
Conclusion	133
CONCLUSION	135
BIBLIOGRAPHY	143

INTRODUCTION

“There was a turtle by the name of Bert, and Bert the turtle was very alert,
When danger threatened him he never got hurt, he knew just what to do,
He’d duck and cover, duck and cover,
He did what we all must learn to do, You, and you, and you, and you,
Duck and cover!

Be sure and remember what Bert the turtle just did friends,
Because every one of us must remember to do the same thing.”¹

This quote, from a public educational film entitled *Duck and Cover*, introduced perhaps the most famous civil defense character from the Cold War, Bert the Turtle. Older Americans may remember viewing this film in elementary classrooms to learn how to protect themselves from the atomic bomb. They may further recall civil defense drills, in which students were instructed to duck beneath their desks, curl themselves into a ball, and place their hands over their heads in a protective posture. Once the ‘all clear’ was given, students would return to their normal classroom routines, confident that they were prepared to confront the harsh realities of nuclear warfare.

“Duck and Cover” drills were commonplace in the early 1950s but seem absurd to modern viewers, who question their protective value against nuclear weapons. How was this the best protective method devised by civil defense officials during the Cold War? Therefore, many people view civil defense as a woefully ill-conceived act of desperation against the most powerful weapons yet devised by humanity at best, or a government ploy to deceive the American people at worst. In a day when post-apocalyptic literature and films constitute a significant portion of popular media, the very idea that people could

¹ United States Office of Civil Defense, and Archer Productions, *Duck and Cover*, directed by Anthony Rizzo (1951: Archer Productions), film.

protect themselves against the ravages of nuclear war seems far-fetched and wildly optimistic. And yet, historians are forced to grapple with the existence of a large body of evidence from scientific inquiries, government records, and civil defense relics that suggest otherwise.

Some of the best-known relics from the early Cold War resulted from the efforts of civil defense agencies to recruit and train individuals in civil defense practices: *Duck and Cover*, fallout shelter signs, informational pamphlets, and civil defense supplies are now synonymous with Cold War culture. They delivered a message of empowerment to ordinary American citizens and asked them to take responsibility for their own protection. Some of these relics remain among us, hidden in plain sight but rarely noticed by passersby. For example, North Dakota State University's Main Library displayed a fallout shelter sign until at least the 2010s; other signs doubtless remain posted around the nation, bearing silent witness to a significant but poorly understood era in American history.

The Cold War has attracted the attention of numerous historians, who sometimes include civil defense as one of many ways in which the conflict affected American society. In *The Culture of the Cold War*, Stephen J. Whitfield analyzed how domestic anticommunist efforts harmed American society during the first two decades of the conflict. Whitfield argued that homegrown communism never posed a significant threat to the nation, but domestic efforts to combat communism (McCarthyism, blacklists, etc.) often violated the very civil liberties American leaders sought to protect. In *Homeward Bound*, Elaine Tyler May examined how Cold War politics, suburban development, and changing race relations affected the American home. While the United States opposed communism abroad, May argued that American society also practiced a domestic form of containment, whereby civilians championed the family as a redoubt against communism and societal disruptions, such as shifting views on sex and race. While May and Whitfield dealt with a variety of

Cold War topics, other writers have focused their research on key issues. For example, in *Life Under a Cloud*, Allan Winkler described Cold War nuclear policy as an interplay between scientists, politicians, and commentators, each with their own objectives and preferences. Winkler argued that despite some limited victories for critics of atomic weapons and nuclear energy, Americans have yet to fully confront the hazards of living in a nuclear world. Neither Whitfield, Winkler, nor May delved deeply into civil defense policies, but other writers have placed a greater emphasis on this topic.

In their research on civil defense, historians generally conclude that civil defense had a significant impact on American culture but failed to shield Americans from nuclear attack. For example, Kenneth Rose examined the “social, cultural, political, and scientific aspects of [the] remarkable debate” over civil defense in *One Nation Underground* and argued that Americans largely rejected civil defense (and specifically home-based shelters) because of their high cost, low effectiveness, and the questionable morality of their use.² In *The Imaginary War*, Guy Oakes criticized civil defense as a deception that offered no protective value to American citizens; instead, he viewed it as an effort to create a public willingness to bear the cost and potential consequences of combatting communism through nuclear deterrence. Both Rose and Oakes considered civil defense on a national level, but David W. Mills utilized a regional approach to civil defense and other Cold War issues. In *Cold War in a Cold Land*, Mills provided a case study on how the northern Great Plains weathered Cold War developments, such as civil defense or the construction of missile bases. Mills argued that unique cultural, economic, and social characteristics in Montana and the Dakotas gave this region a Cold War experience quite unlike that of other parts of the United States.

² Kenneth Rose, *One Nation Underground: The Fallout Shelter in American Culture* (New York: New York University Press, 2001), 10.

This thesis emulates Mills' localized approach but on a smaller scale; I use a case study of Fargo, North Dakota to examine how local communities responded to civil defense initiatives and explain the lackluster implementation of civil defense practices during the Truman, Eisenhower, and Kennedy administrations. This thesis argues that civil defense failed to take hold because it placed too much responsibility on local communities to provide their own safety against nuclear warfare. Since the inception of atomic civil defense in 1950, federal civil defense agencies placed themselves in an advisory role and declined to make material or financial contributions toward the implementation of their recommendations. Instead, they relied upon local communities, both their governments and civilians, to bear the burden of bringing civil defense into fruition.³ For a variety of reasons, local communities proved incapable or unwilling to accept this responsibility and endured Cold War tensions without the comfort of protection from atomic attack. As technological advances brought hydrogen bombs and intercontinental ballistic missiles (ICBMs) into Soviet arsenals, federal civil defense agencies again relied on civilians and their local governments to establish their own civil defense measures based on recommendations from higher authorities. This arrangement proved unrealistic and contributed toward the general failure of civil defense to protect American citizens during the early Cold War.

Granted, numerous elements factored into the failure of civil defense: poor leadership from federal officials, a lack of funding from Congress, the limited effectiveness of many civil defense practices (though I suggest that this has been exaggerated), general apathy toward the prospect of nuclear war, and the moral implications of nuclear survival,

³ This thesis focuses on three civil defense agencies: the Federal Civil Defense Administration (1950-1958), the Office of Civil Defense Mobilization (1958-1961), and the Office of Civil Defense (1961-1970). United States Department of Homeland Security, National Preparedness Task Force, *Civil Defense and Homeland Security: A Short History of National Preparedness Efforts* (U.S. Department of Homeland Security, 2006), 7, 10-11, 14.

to name a few. However, this thesis presents civil defense's emphasis on local responsibility as another point of consideration that contributed to Fargo's ineffective civil defense during the Truman, Eisenhower, and Kennedy administrations. This theme is developed across three chapters.

Chapter 1 examines the development of Fargo's civil defense operations in the early 1950s. Federal, state, and city civil defense organizations portrayed civil defense as a local responsibility shared by a community's citizens and government and emphasized civil defense as an American duty whereby civilians could use simple measures to protect themselves against the atomic bomb. They further argued that these efforts proved effective against the bomb's blast and heat effects while ignoring its lethal radiation. Fargo's leaders embraced these principles in their civil defense planning and often followed recommendations from outside agencies; however, they proved less successful in recruiting volunteers to participate in civil defense, and the lack of citizen involvement imperiled the city's preparations.

Chapter 2 considers the hydrogen bomb's impact on civil defense planning at the federal level. The hydrogen bomb proved too powerful for the measures employed by Fargo and other communities, so the Federal Civil Defense Administration embraced evacuation as its preferred tactic. This continued to place most of the responsibility for civil defense upon local communities. However, the Bravo test revealed the threat of radioactive fallout and necessitated a reassessment of evacuation strategies by private and congressional sources. Much of the chapter analyzes the debate over evacuation and the fallout threat and concludes that the Eisenhower administration failed to salvage much of a civil defense program in the hydrogen bomb's wake.

Chapter 3 examines how civil defense changed during the Kennedy administration and explores Fargo's response to the Berlin and Cuban Missile Crises. Kennedy tried to

increase the federal government's share in civil defense through the National Fallout Shelter Survey but soon lost enthusiasm for this initiative due to the public's continued apathy and declining political support for civil defense improvements. Due to these developments, Fargo retained responsibility for its own protection but failed to make any significant headway. The city's government preferred to focus on its growing needs and lacked the financial ability to pay for a renewed civil defense program. Residents likewise failed to do much in response to Kennedy's efforts and international crises, and proved content to continue their lives without protecting their community.

This thesis concludes with a discussion on the drawbacks of relying on local communities to enact public policy and considers how this tendency continues to manifest itself in current events, including government responses to the COVID-19 pandemic.

CHAPTER 1. THE EARLY COLD WAR: FARGO EMBRACES CIVIL DEFENSE

In the early 1950s, civil defense organizations placed the greatest responsibility for civil defense upon the American citizen. The roots of this decision trace back to the late 1940s when the federal government began considering what to do if the Soviet Union developed its own atomic bomb. The Bull Report, published by the War Department's Civil Defense Office in 1947, argued that "civil defense [was] the responsibility of civilians" and placed responsibility on state and local governments, with the federal government offering limited material aid to local efforts.⁴ One year later, the Office of Civil Defense Planning released the Hopley Report, which advocated for the creation of a federal body to help state and local organizations enact civil defense measures but fell short of making the federal government responsible for the nation's protection.⁵ Lastly, the National Security Resources Board (NSRB) published *United States Civil Defense* (also known as the "Blue Book"), a series of proposals that greatly influenced the formation of the Federal Civil Defense Administration (FCDA) in 1950, and likewise delegated responsibility for implementing civil defense to the states and advised the federal government to limit itself to an advisory role.

Congress acted on these recommendations by creating the FCDA as part of the Federal Civil Defense Act of 1950. Lawmakers restricted the FCDA's mission to offering advice and limited material assistance to state and local governments rather than providing direct protection to American citizens. Several factors motivated this decision, including the financial cost of nationwide preparations, fears that the public might become too dependent on the federal government, and Britain's success in employing localized civil

⁴ United States Department of Homeland Security, *Civil Defense...Homeland*, 6-7.

⁵ President Truman created the Office of Civil Defense Planning to understand how the nation might establish a permanent civil defense apparatus.

defense organizations during World War II.⁶ Presidents Truman and Eisenhower also opposed the federalization of the nation's civilian protection, preferring to let states take the lead instead. Collectively, these factors meant that the responsibility for civil defense rested upon state and local governments, as the FCDA could not offer much tangible assistance. One result of this situation was that many states, regions, and cities published their own civil defense booklets to supplement whatever materials they procured from the FCDA. Another result was far more significant: knowing the limitations of federal assistance and fearing that local governments would be unable to provide civil defense funding, civil defense organizations enlisted citizens in the struggle toward atomic protection.

As civil defense groups planned for the nation's security, they faced an uphill battle in persuading citizens to embrace civil defense because many Americans lacked the desire to sacrifice time and energy in the name of self-protection, a sentiment that endured throughout the 1950s.⁷ In his excellent analysis of the Cold War's effects on the Northern Plains, historian David Mills offers several explanations for this lack of action: Americans hoped that an attack would not affect them, viewed shelters as expensive, feared surviving a nuclear war more than perishing in one, and were confused by "contradictory messages from community and national leaders."⁸ Civil defense organizations employed three arguments to confront these points of resistance among the American people: they portrayed civil defense as every citizen's duty, downplayed the destructive power of the atomic bomb, and presented civil defense as a simple but effective form of protection. Civil

⁶ United States Department of Homeland Security, *Civil Defense...Homeland*, 8; Allan M. Winkler, *Life Under a Cloud: American Anxiety About the Atom* (Champaign: University of Illinois Press, 1999), 110.

⁷ Rose, *One Nation Underground*, 10.

⁸ David W. Mills, *Cold War in a Cold Land: Fighting Communism on the Northern Plains* (Norman: University of Oklahoma Press, 2015), 114.

defense organizations wove these arguments into their publications throughout the 1950s, hoping Americans would answer the call to protect themselves and their communities against atomic attack.

Citizens are Responsible for their Own Protection

Civil defense publications frequently appealed to citizens' sense of duty to gain their assistance in building an effective system of atomic protection. Everyone had a responsibility to contribute toward civil defense, as shown in a diagram from *Attitudes and Behavior for Civil Defense: ABC's for Civilians*, a brochure published by Washington, D.C. civil defense officials in 1951. The image shows a variety of community members, including schools, emergency responders, neighborhood councils, local businesses, and families clustered around the Civil Defense emblem. The groups are connected by a series of arrows originating from the Civil Defense logo that flow throughout the community, creating an interconnected web of defensive readiness. "We Cooperate for Civil Defense in Our City!" flows across the top of the image, with "Everybody has a job to do!" occupying a lower corner.⁹ The message is clear: if you were part of a community, then you should partake in its civil defense. This applied equally to those whose occupations necessarily involved them in the public's welfare (police officers, doctors, the Red Cross, etc.) and to ordinary residents as well (students, families, churches, and business organizations). Any weakness in the civil defense web imperiled the community, so everyone needed to do their part in safeguarding its future.

Even children were expected to contribute toward the community's security. An estimated "87.4 percent of elementary schools and 88.4 percent of secondary public schools"

⁹ The Public and Parochial Schools, District of Columbia, *Attitudes and Behavior for Civil Defense: ABC's for Civilians* (Washington, D.C.: Government of the District of Columbia, 1951), 20-21.

provided some measure of civil defense training by 1952, often centered on basic practical civil defense measures.¹⁰ *Attitudes and Behavior for Civil Defense* encouraged children to participate in “safety drills,” learn to instantly obey orders, and practice “self-reliance and responsibility.”¹¹ Notice the last statement – children had a responsibility if an atomic emergency arose, even if it was limited to obeying orders and letting the adults focus on civil defense tasks. Further recall that schoolchildren occupied a place in the booklet’s flow chart of civil defense responsibility. While a child’s role in civil defense was minimal, government officials considered it significant enough to include in this publication. Students could further contribute to civil defense by learning to seek immediate shelter when the bomb exploded. This was the core principle of *Duck and Cover*, a civil defense film that became ubiquitous in school systems across the nation. School leaders drilled students on these self-protection measures throughout the 1950s, thereby ensuring that children could fulfill their duty during an enemy attack.

Duck and Cover presented civil defense as something that applied to every American. Other civil defense sources also placed responsibility on each citizen, such as the *Civil Defense Manual for Georgia Schools* which included a diagram describing the nation’s approach to civil defense.¹² The diagram placed an American family in the center of concentric circles that denoted the chain of responsibility for civil defense preparations. It described the individual as “Calm and well trained” and their family as the “base of organized self-protection.”¹³ Citizens and their families formed the foundation for civil

¹⁰ Tracy C. Davis, *Stages of Emergency: Cold War Nuclear Civil Defense* (Durham: Duke University Press, 2007), 106.

¹¹ *Ibid.*, 24.

¹² *Civil Defense Manual for Georgia Schools*, Georgia Office of Civil Defense, in Michael Scheibach, *“In Case Atom Bombs Fall”: An Anthology of Governmental Explanations, Instructions and Warnings from the 1940s to the 1960s* (Jefferson, NC: McFarland & Company, 2009), 133.

¹³ *Ibid.*

defense: family units would work with their community to implement civil defense measures while nearby cities, states, and the federal government would offer support “as needed.”¹⁴ The diagram placed individuals at the heart of the nation’s response, meaning failure at the individual level would radiate outward into other aspects of civil defense and weaken national recovery.

In 1955, the Denver Civil Defense Program released perhaps the most aggressive declaration of the individual’s duty to participate in civil defense. *Be Prepared* began with a terrifying and accusatory proposition: if an atomic bomb exploded over Denver, what would happen to your family? “WERE YOU KILLED? WERE YOU PAINFULLY BURNED? WERE YOU CRUSHED IN THE DEBRIS OF THE BOMB BLAST? WHAT HAPPENED TO YOUR WIFE? ... IF YOU, YOUR WIFE, OR YOUR CHILDREN WERE INJURED, WHAT IS BEING DONE TO HELP YOU?” (capitalized in original).¹⁵ According to the pamphlet, these questions could only be answered by Denver residents who participated in civil defense preparations. Denver officials had organized the city’s resources as the first step in protection, but the next step required individuals to “capably and devotedly” receive civil defense training, support Denver’s civil defense organization, and mobilize themselves during an atomic attack.¹⁶ *Be Prepared* presented civil defense as part of one’s obligation to protect their family and the duty of every patriotic American. It argued that “no one has the right to expect protection or the benefits and blessings of freedom unless he is willing to assume the obligations of citizenship,” which naturally included civil defense training.¹⁷ In other words, if citizens cherished their rights and liberties, they needed to join the Denver Civil Defense Program and stand ready to fight for their own freedom. During World War

¹⁴ Ibid.

¹⁵ *Be Prepared*, Denver Civil Defense Program, in Scheibach, “*In Case Atom Bombs Fall*,” 113.

¹⁶ Ibid., 115.

¹⁷ Ibid.

II, Americans rallied in defense of their nation by serving in the military, assembling war machines in factories, or rationing their consumption of wartime necessities, often from a sense of duty and obligation. Denver's civil defense officials, and their colleagues across the country, expected Americans to embrace the same measure of responsibility and civic duty in preparing for a nuclear catastrophe.

In the early 1950's, civil defense organizations demanded the civilian population to serve as the foundation for the nation's protection. The government, whether federal, state, or local, would do its part in researching best practices and conveying that information to American citizens through pamphlets, posters, and films. In turn, citizens had the responsibility to learn about civil defense measures and take appropriate action to protect their communities. However, it is difficult for people to believe that they are fully capable of protecting themselves against the most destructive weapon ever devised by human hands. The FCDA and similar agencies utilized two arguments to counter this belief and convince American citizens that they could indeed defend their families against atomic attack. First, civil defense organizations argued that the atomic bomb was basically a conventional weapon by downplaying the radiation threat. Second, they recommended simple actions that could protect people against the atomic bomb's conventional impacts. If the American people accepted these principles, civil defense would come into fruition; if they did not, then the nation would remain vulnerable to enemy attack.

It's Just a Really Big Bomb

Civil defense experts believed that Americans needed to understand "the bomb's true dangers" before learning protective techniques; therefore, civil defense pamphlets often provided blunt evidence of the atomic bomb's destructive power.¹⁸ However, they tended to

¹⁸ Executive Office of the President, National Security Resources Board, Civil Defense Office, *Survival Under Atomic Attack* (Washington, D.C.: U.S. Government Printing Office, 1950), 3.

downplay the atomic bomb's potency, especially its radiological effects. Their descriptions often compared the atomic bomb to conventional weapons, meaning those that do not possess chemical, biological, or nuclear effects. By emphasizing the blast and heat impacts rather than radiation, civil defense leaders demystified the atomic bomb and portrayed it as a large explosion whose impacts were like that of conventional bombs used during World War II. Since civilians had protected themselves during that war, Americans could similarly adopt civil defense practices to protect themselves in future wars, even if they involved atomic weapons. This argument appeared in numerous civil defense publications from the early 1950s and was simply a way to convince Americans to provide their own protection against the apocalypse. Civil defense leaders presented this message through two main ideas: atomic weapons were less harmful than most people thought, and an atomic emergency was not all that different from the mundane disasters Americans encountered in normal life.

In 1950, the National Security Resources Board published *Survival Under Atomic Attack*, one of the earliest civil defense publications for public use that heavily influenced civil defense policies across the nation.¹⁹ The NSRB acknowledged that atomic weapons imperiled American lives; to argue otherwise would have offended readers who were familiar with the repercussions of the Hiroshima and Nagasaki bombings in 1945. Interestingly, the NSRB used the Atomic Energy Commission's studies on those same tragedies to understand how a nuclear attack would affect American cities.²⁰ By utilizing a comparable example familiar to many Americans, civil defense officials offered a stark

¹⁹ Scheibach, "In Case Atom Bombs Fall," 33.

²⁰ Executive Office of the President, National Security Resources Board, *Survival Under Atomic Attack*, 4; U.S. Department of Defense and U.S. Atomic Energy Commission, *The Effects of Atomic Weapons* (Washington, D.C.: Government Printing Office, 1950), 13. The Hiroshima and Nagasaki bombs each possessed the power of 20,000 tons of TNT.

warning to the nation: a Soviet bomb could inflict similar devastation upon the American homeland. *Survival Under Atomic Attack* offered a graphic look into the grim realities of modern warfare. An atomic bomb's heat and blast effects could wipe entire city blocks off the map, and anyone within one half mile of the bomb's epicenter had "practically no hope of living" through the blast force, with survival odds placed at a mere 10 percent.²¹

However, survival rates rapidly improved as distance from the blast increased – people about one mile from ground zero had an 85 percent chance of surviving, while two miles' distance would save virtually everyone.²² The NSRB included this information because they believed that accurate knowledge was key to survival, especially as speculation and rumor surrounded the atomic bomb after World War II.

To this end, *Survival Under Atomic Attack* addressed several myths regarding the atomic bomb's power that could dissuade Americans from taking civil defense measures seriously. The booklet reminded readers that while atomic weapons possessed immense power and threatened entire cities, they "still h[ave] very definite limits" and could not "blow the earth apart or kill us all with radioactivity."²³ Doubling their destructive force would not double the affected area, nor was radiation sickness necessarily fatal; rather, "there is still a good chance for recovery" from significant exposure to radiation.²⁴ The NSRB and civil defense organizations assured readers that the atomic bomb would not destroy the world, nor would its radioactive byproducts end human civilization; in fact, Americans stood a solid chance of surviving and rebuilding their nation if they learned civil defense measures and took precautions before the bombs fell. The atomic bomb was

²¹ Executive Office of the President, National Security Resources Board, *Survival Under Atomic Attack*, 5.

²² Ibid.

²³ Ibid., 15.

²⁴ Ibid.

immensely powerful and its effects were catastrophic, but if readers held firmly to the truths about surviving an enemy attack, the nation could survive and emerge stronger than ever.

However, civil defense publications often presented a misleading version of atomic reality by downplaying the threat posed by atomic bombs. *Survival Under Atomic Attack* offers numerous examples of the NSRB's tendency to downplay the atomic bomb's destructive power, beginning with a recasting of its nature. In the booklet's opening pages, the reader learns that the atomic bomb is not all that different from other bombs in the nation's arsenal: "atom-splitting is just another way of causing an explosion."²⁵ The atomic bomb killed and destroyed its targets with explosive blast and heat, which was no different from how incendiary and conventional bombs operated. Normal explosive forces were "by far the greatest dangers that people must face" when atomic bombs exploded, but civil defense measures could prepare them to confront these hazards.²⁶ The atomic bomb was not a magical weapon, it did not kill everyone within its damage radius, and its radiation did not render land unusable for the distant future. In the same way that London, Berlin, and Tokyo were rebuilt after intense aerial bombardment during World War II, Americans could rebuild their cities after an atomic attack. The booklet noted that many inhabitants of Hiroshima and Nagasaki survived the attacks in 1945 and had started to rebuild their lives:

Today thousands of survivors of these two atomic attacks live in new houses built right where their old ones once stood. The war may have changed their way of life, but they are not riddled with cancer. Their children are normal. Those who were

²⁵ Ibid., 4.

²⁶ Ibid., 6, 15.

*temporarily unable to have children because of the radiation now are having children again.*²⁷

The NSRB's message was clear: atomic war would destroy American cities and kill or injure Americans by the thousands (if not millions); however, it did not herald the end of American society. The nation need only look to the example set by Japan: atomic bombs had leveled Hiroshima and Nagasaki, but thousands had survived the attack to rebuild their homes, resume their previous lives, and provide for their children with few long-term atomic consequences. If Japan, a defeated nation and therefore weaker than the United States, could do this, then Americans could certainly replicate Japan's successful recovery in a post-atomic world, especially if they embraced civil defense measures.

In portraying the atomic bomb as a large conventional explosive, the NSRB confronted an inconvenient truth: atomic bombs differed from pre-existing weapons because they produced radiation, a consequence quite unlike anything combatants or civilians had seen before. Radiation seems to have provoked uncertainty and fear among the American public, for it was another myth that the NSRB addressed in *Survival Under Atomic Attack*, plainly stating that "Radioactivity is not the bomb's greatest threat" and "Radiation sickness is not always fatal."²⁸ These statements appeared under the booklet's "Kill the Myths" page, where the NSRB also discussed the limited nature of the atomic bomb's destructiveness (as previously noted). However, government officials argued against the notion that radiation was a mystery or unknown factor, claiming that "we actually know more about radioactivity and what it does to people than we do about infantile paralysis, colds, or some other common diseases."²⁹ This helps explain *Survival Under Atomic*

²⁷ Ibid., 4.

²⁸ Ibid., 15.

²⁹ Ibid., 8.

Attack's apparent obsession with the topic, as it dedicates more than a dozen pages to radiation, offering insight into what it is, how it may sicken its victims, and how families could recover from its presence.

It is important to note that the NSRB did not mention fallout, the airborne radioactive materials that later hydrogen bombs could spread over hundreds of square miles.³⁰ Instead, *Survival Under Atomic Attack* described two types of radiation. The most dangerous type (according to the NSRB) was “initial radioactivity...an extremely powerful invisible burst of rays and particles thrown off at the time of explosion.”³¹ ‘Initial radiation’ threatened anyone within one mile of the bomb’s epicenter: victims within two-thirds of a mile would “soak up a fatal dose of radioactivity” while those a little further away would “suffer illness” including nausea and vomiting.³² There was little that Americans could do to protect themselves from ‘initial radioactivity’, other than be a sufficient distance away. *Survival Under Atomic Attack* also cautioned readers about a second type of radiation, referred to as ‘lingering radiation’. This threat was the result of fission products from the explosion itself and behaved similarly to dust, which would be “so widely and thinly spread that they are very unlikely to offer any real dangers to humans.”³³ This was not the same as fallout, which affected areas dozens or even hundreds of miles away from hydrogen bomb explosions, for ‘lingering radiation’ remained largely concentrated within the atomic bomb’s blast radius. The booklet urged readers to avoid ‘lingering radiation’ and remove it as quickly as possible, but also assured them that it posed little threat for most of the nation; none of Japan’s nuclear victims suffered injury or death from it.³⁴

³⁰ The NSRB omitted fallout because no one had yet understood the threat it posed – researchers only became aware of this after the Bravo test in 1954.

³¹ *Ibid.*, 9.

³² *Ibid.*, 9, 12.

³³ *Ibid.*, 22.

³⁴ *Ibid.*

This information increased the reader's understanding of radiation, but in its descriptions and recommendations concerning radiation, the NSRB also downplayed the danger posed by this harmful byproduct of nuclear detonations. For example, the booklet argued that "radioactivity from atomic bursts is much less to be feared than blast and heat," noting that radiation caused only fifteen percent of the casualties at Hiroshima and Nagasaki, as compared with blast and heat effects, which caused around fifty percent and one-third of the casualties, respectively. Although the bomb's radiation posed some hazard to Americans, it would cause far less harm than its blast and heat effects, which implied that radiation was small potatoes when it came to civil defense preparations.

Survival Under Atomic Attack further downplayed radiation's danger by comparing it to mundane elements of daily life, such as sunlight and dust. Radiation sickness was like sunlight in that the severity of its main hazard, sunburn, depended on a variety of factors.³⁵ Brief exposure was unlikely to cause any harm, and while a "bad sunburn on just the face and hands may hurt...it won't seriously harm you."³⁶ Sickness or death only resulted from sustained sunlight exposure over large portions of the body. The booklet then explained that radiation behaved in a similar way, as variations in the strength, duration, and location of radiation exposure determined how much damage might be inflicted on the human body. In a later section, the NSRB compared 'lingering' radioactive particles to "ordinary, everyday dust" that scatters after an atomic blast and is very difficult to fully remove.³⁷ Americans did not need worry though, for just as household dust is only problematic in large amounts, an atomic bomb's radioactive particles were "so widely and so thinly spread that they are very unlikely to offer any real dangers to humans."³⁸

³⁵ Ibid., 9.

³⁶ Ibid.

³⁷ Ibid., 21.

³⁸ Ibid., 22.

These comparisons helped readers understand how radiation worked, but they also framed its dangers as an accepted part of life to be mitigated through planning and preparation. Radiation could not pose a mysterious unpreventable threat to American society if something as simple as a change of clothing or bathing with warm water and soap could alleviate its consequences.³⁹ By downplaying the threat of nuclear radiation, civil defense leaders assured Americans that the situation was not hopeless, and they could actively enhance their survivability. The atomic bomb was no wonder weapon; it bore remarkable similarities to the conventional bombs that had failed to bring Great Britain and Germany to its knees. Even the enormous casualties at Hiroshima and Nagasaki could be reduced if proper precautions were taken, as the NSRB's dire calculations assumed "that you have absolutely no advance warning of the attack" and no ability to take the simple, life-saving steps outlined in civil defense documents.⁴⁰ With prior warning, they believed that survival rates would dramatically improve.

In a final attempt to convince Americans that the atomic bomb did not threaten human civilization, the NSRB compared atomic threats to mundane hazards, such as fires and natural disasters. While destructive and harmful, natural disasters are so common that societies have learned to live with them and developed methods for ameliorating the risks they impose on ordinary life. Consider homeowners who construct tornado shelters on the Great Plains – while one hopes to never need the shelter, its availability offers security in case disaster should strike. Knowing that safety lies close at hand, they can face each thunderstorm with greater confidence. The NSRB taught Americans to view civil defense in a similar manner; while atomic bombs imperiled everyone, citizens could protect

³⁹ *Ibid.*, 25.

⁴⁰ *Ibid.*, 6.

themselves under the guidance of civil defense experts and attain a sense of relative serenity.

Survival Under Atomic Attack demonstrated this attitude in stating that subterranean hurricane cellars would “give excellent protection against atomic bombs.”⁴¹ While the threats were vastly different, household shelters offered protection from both atomic and natural disasters. This portrayal made enemy attack seem less threatening and more survivable. Later in the booklet, the NSRB again encouraged readers by noting that radiation was not much to worry about, as the odds of “complete recovery are much the same as for everyday accidents.”⁴² Americans encountered accidents frequently, whether from automobile crashes, work incidents, or common sprains and broken bones, yet their bodies recovered from these injuries. While people undoubtedly did their best to avoid such mishaps, by no means did they experience dreadful fear of their possibility. They avoided injury if possible but reluctantly accepted that these things could happen. According to the NSRB, the atomic bomb simply added radiation sickness to the list of potential hazards one might encounter in their lifetime. The consequences of nuclear war were neither so terrible nor unique that citizens could not mitigate or accept them.

Local civil defense organizations mimicked the NSRB’s comparison of nuclear attack to natural disasters. In *Attitudes and Behavior for Civil Defense*, the 1951 booklet targeting students in Washington, D.C., writers likened civil defense measures to traffic rules and fire drills that enhanced everyone’s well-being. “There [was] nothing new about learning to obey safety rules” in response to adverse conditions, for an enemy attack simply demanded different safety measures than fires or pedestrian traffic incidents.⁴³ Rather than

⁴¹ Ibid., 14.

⁴² Ibid., 5.

⁴³ The Public and Parochial Schools, *Attitudes and Behavior*, 7.

evacuating the building during a fire drill, students would respond by “staying in and lying low” when the air raid siren sounded. By comparing an air raid to a building fire, civil defense officials hoped to reduce panic and anxiety. After all, fire drills were a common part of the school experience – an air attack drill was not much different, even though it was in preparation for an atomic attack. While the atomic bomb placed students in great danger, they could face it with greater confidence knowing that it was merely another hazard to face.

The Milwaukee Civil Defense Administration also used familiar emergencies to help citizens understand and manage the panic that could arise in the aftermath of an atomic blast. In a locally published civil defense booklet, Milwaukee officials argued that an enemy attack could induce the same terror that caused people “trapped in burning hotels to jump out of the window to certain death,” to “trample each other to death to get out of a burning movie theater,” and “run into the path of a tornado instead of seeking the shelter that would have saved them.”⁴⁴ Americans encountered such emergencies in their normal lives and could be taught to take preventive measures to safeguard their lives – why should a nuclear emergency be any different? Atomic bombings induced the same panic that afflicted citizens in mundane disasters, therefore the solution was for Americans to learn how to protect themselves and mentally recover from the shock of an attack, and civil defense offered these lifesaving lessons. By joining their local civil defense organizations and participating in drills, citizens safeguarded themselves against panic: “As soon as the warning sirens sound, your course will be charted and your duties and responsibilities will carry you through the first wave of hysteria which will inevitably follow the blast.”⁴⁵ By

⁴⁴ *Your Civil Defense Manual: A Handbook on Personal Survival*, Milwaukee Civil Defense Administration, in Scheibach, “*In Case Atom Bombs Fall*,” 108.

⁴⁵ *Ibid.*, 110.

comparing atomic bombings to common emergencies, Milwaukee's civil defense leaders demonstrated that while dangers existed, their impact could be reduced by a knowledgeable and well-trained citizenry.

The NSRB and contemporary civil defense organizations portrayed nuclear warfare as both survivable and familiar, at least in the sense that atomic weaponry did not drastically alter modern warfare or its threat to civilians. Though exceedingly powerful, the atomic bomb inflicted its damage in the same way as conventional weapons whose effects could be countered. Nuclear radiation posed a new threat to the population, but its potency was far lower than many people feared. Americans faced threatening natural and accidental hazards each day, but knowledge and preparation helped them go about their lives normally; civil defense taught them to live with the possibility of atomic attack as well. If Americans perceived an enemy attack as being little different from the tragedies that normally threatened life and property, such as tornadoes and hurricanes, citizens might take civil defense measures more seriously. The result, so far as civil defense leaders were concerned, would be a citizenry committed to preparing for war rather than succumbing to a hopeless situation.

Modern readers may conclude that civil defense authorities intentionally misled its citizens or misrepresented the facts about the atomic bomb to comfort them, but it is important to remember that scientists in the early 1950s still had much to learn about atomic weapons, especially regarding their radioactive effects. Civil defense officials painted an optimistic portrait of atomic warfare's consequences, but they also lacked much of the information that modern readers take for granted. Consider the exhaustive scientific inquiries made at Hiroshima and Nagasaki just five years prior to the publication of *Survival Under Atomic Attack*, or the numerous nuclear tests conducted to understand the

full effects and uses of nuclear weapons during the 1950s and 1960s. Early civil defense was based on limited evidence compared to what is available today.

Readers should also consider the type of weapons that existed in the early 1950s. The early atomic bombs used in World War II and tested by the Soviet Union possessed far less power than the hydrogen bomb, which is what most people think of when they consider nuclear weapons. “Little Boy” and “Fat Man” detonated several hundred meters above ground to maximize the effectiveness of the blast and heat effects. These ‘air bursts’ created far less airborne radiation than ground or water explosions, a fact that influenced the NSRB’s evaluation of the bomb’s effects and appropriate countermeasures against them.⁴⁶ However, hydrogen bombs were so powerful that even air burst detonations created abundant fallout, a fact that remained unknown until the infamous Bravo test in 1954.⁴⁷ This realization greatly weakened early civil defense measures and forced government leaders to alter their recommendations, as will be discussed in Chapter 2. The point is that modern readers tend to view all nuclear weapons as hydrogen bombs, which distorts their appraisal of civil defense decisions in the early 1950s. Perhaps it is useful to recall Hanlon’s Razor and not attribute to malice that which can be explained by incompetence, or the lack of knowledge in this case. This does not mean that civil defense organizations were completely innocent in their biased assessment of the nuclear threat, but it is worth noting before discussing their directives on civil defense training and measures.

Civil Defense Offers Simple and Effective Protection

Having armed ordinary citizens with a proper understanding of nuclear realities, civil defense officials tried to convince American citizens that self-protection was a simple

⁴⁶ Executive Office of the President, National Security Resources Board, *Survival Under Atomic Attack*, 10-11, 20.

⁴⁷ Sean M. Maloney, *Emergency War Plan: The American Doomsday Machine, 1945-1960* (Lincoln: Potomac Books, 2021), 76.

but effective shield against the atomic bomb's blast and heat effects. If Americans believed that atomic bombs were basically large conventional bombs that did not require special protection, then they, not the government, held the key to surviving an atomic attack. Citizens could save themselves by following civil defense guidelines. Ordinary people could undertake these actions because they were simple; anyone could clean up their yard, stockpile food supplies, or seek emergency shelter. Not only were these practices within the capabilities of the average American, but they offered a reasonable level of protection from an atomic explosion. Civil defense measures could limit the atomic bomb's impact on local communities and facilitate a rapid recovery, assuming Americans understood these tips and were ready to act when the bombs fell.

The NSRB conveyed this belief toward the conclusion of *Survival Under Atomic Attack*. Having provided considerable detail concerning the atomic bomb's likely impact on American communities, the booklet offered a word of encouragement to readers. If citizens applied the lessons in the NSRB's booklet, they "[stood] far better than an even chance of surviving the bomb's blast, heat, and radioactivity."⁴⁸ Americans could blunt the atomic bomb's destructive power through proper preparation and knowing what to do in the attack's aftermath; they did not need "to have a Geiger counter, protective clothing, or special training in order to do it."⁴⁹ Civil defense provided an effective means of protecting one's self, family, and community against an enemy attack.

In New York, civil defense officials echoed this idea in a 1950 booklet entitled *If the Niagara Frontier is Bombed*. In the booklet's introduction, Lucius D. Clay, chairman of the New York State Civil Defense Commission, exhorted readers to view civil defense as an

⁴⁸ Executive Office of the President, National Security Resources Board, *Survival Under Atomic Attack*, 31.

⁴⁹ *Ibid.*, 3.

effective safeguard against atomic attack. If citizens embraced their role and learned what to do, “the effects of the bomb can be greatly minimized.”⁵⁰ By saving themselves and their families, readers would also be able to rebuild their communities. Each life saved by basic civil defense practices was another worker who could extinguish fires, treat wounded neighbors, and distribute supplies after an attack. American cities would only “be crippled *temporarily*” (emphasis added) by an atomic explosion, assuming readers prepared before the bombing occurred.⁵¹ If citizens were properly educated, their community could survive and recover from an atomic attack.

Civil defense publications divided protective measures into two distinct phases: actions to prepare for an attack and survival methods during an atomic attack. The first phase of civil defense readiness centered on what civilians could do before an enemy attack to increase their likelihood of survival. For example, *Just in Case Atom Bombs Fall*, a booklet published by Denver’s Civil Defense Office, urged readers to prepare their homes as private sanctuaries against the bomb’s effects. It instructed them to identify “parts of your residence that will probably afford you the greatest protection,” such as basements and load-bearing walls, so that they knew where to go when the air raid sirens blared.⁵² Homeowners further needed to stockpile supplies, such as flashlights, food, and fire extinguishers, beforehand so that they were readily accessible when an emergency arose.⁵³ A final step involved removing superfluous flammable items from the house: “Don’t let

⁵⁰ *If the Niagara Frontier is Bombed*, Niagara (N.Y.) Frontier Civil Defense Offices, in Scheibach, “*In Case Atom Bombs Fall*,” 94.

⁵¹ *Ibid.*

⁵² *Just in Case Atom Bombs Fall*, Civil Defense Office of Denver, in Scheibach, “*In Case Atom Bombs Fall*,” 100.

⁵³ Civil defense documents often advised readers to have buckets of sand or water available to fight fires that could flare up in the bomb’s aftermath. They feared that little fires might flare into large structural fires that would overwhelm fire departments and cause further catastrophic damage.

trash pile up. Keep waste paper in covered containers... remove furniture, boxes, magazines, rags, and other inflammable materials from the attic.”⁵⁴ Officials feared these materials could fuel infernos that threatened life, property, and rescue efforts. Each of these guidelines offered protection to American households while also being relatively simple for most Americans to perform.

These practical steps for ordinary citizens appeared in other civil defense publications, such as Washington, D.C.’s *Attitudes and Behaviors for Civil Defense*, which urged readers to “Have a home clean-up campaign” and “Clean out all trash or anything that might be a fire hazard.”⁵⁵ It mirrored other aspects of *Just in Case Atom Bombs Fall* as well, instructing readers to identify places of safety in their homes and store emergency drinking water, blankets, first aid kits, and radios. Notice that both documents emphasized simplicity and effectiveness. These steps were well within the means of the average American, who only needed to gather emergency supplies and place them in a safe area to be protected against an atomic bomb. Furthermore, these steps only addressed the atomic bomb’s conventional dangers: basement walls offered protection from blast forces and ‘fireproofing’ steps would limit the impact of the bomb’s intense heat, but these documents offered little advice on how citizens could avoid or limit radiation exposure. Despite this limitation, civil defense officials believed that they could empower ordinary Americans to protect themselves against atomic attack.

As American families converted their homes into personal sanctuaries, civil defense organizations offered instruction on other elements of survival. For example, how would citizens receive important information during an atomic emergency? Civil defense publications warned civilians against spreading rumors, fearing they “might touch off a

⁵⁴ Ibid., 100-101.

⁵⁵ The Public and Parochial Schools, *Attitudes and Behavior*, 13.

panic that could cost your life.”⁵⁶ Instead, they were advised to listen to CONELRAD, an emergency broadcast system launched by President Harry S. Truman.⁵⁷ If an attack occurred, the government would convey critical civil defense updates for local, state, and national agencies on the 640 and 1240 AM frequencies.⁵⁸ Listeners would receive updates on the attack and how the government was responding to the disaster. Civil defense publications told American readers how to access these broadcasts, how the system operated, and how frequently programming might be heard in an emergency.

Civil defense organizations also urged citizens to take responsibility for civil defense by learning their community’s emergency response plan, participating in drills and practice alerts, and contacting their neighborhood warden.⁵⁹ They could also receive training in recovery-oriented skills, such as “First Aid, Home Nursing, ... Nurses’ Aid,” basic firefighting, and sanitation measures.⁶⁰ Here again, civil defense officials presented simple principles that could make a significant difference if atomic bombs fell on the nation. None of these measures were particularly difficult to comprehend or achieve, so anyone could take up the call and join the civil defense ranks. If they did so, Americans would know what to expect in an atomic attack, possess the skills to handle many of its resulting challenges, and facilitate the nation’s postattack recovery. As Americans trained themselves in civil defense measures and prepared their homes for an enemy attack, they also needed to know how to react when an atomic bomb exploded.

⁵⁶ Executive Office of the President, National Security Resources Board, *Survival Under Atomic Attack*, 17.

⁵⁷ *In Case of Attack!*, Federal Civil Defense Administration, in Scheibach, “*In Case Atom Bombs Fall*,” 83.

⁵⁸ *Ibid.*

⁵⁹ The Public and Parochial Schools, *Attitudes and Behavior*, 25.

⁶⁰ The Public and Parochial Schools, *Attitudes and Behavior*, 25; Executive Office of the President, National Security Resources Board, Civil Defense Office, *United States Civil Defense* (Washington, D.C.: U.S. Government Printing Office, 1950), 41.

The second phase in civil defense preparation told citizens what to do during an atomic attack. The FCDA immortalized its guidance for a surprise attack in *Duck and Cover*, the famed civil defense film starring Bert the Turtle. Produced in 1951, this film became a cornerstone for the FCDA's efforts to teach students how to protect themselves from an atomic bomb. A catchy song narrated the opening scene: Bert is strolling along when a monkey hangs a menacing stick of dynamite near Bert's head. Knowing "just what to do...when danger threatened him," Bert immediately withdraws into his shell, narrowly escaping the explosion.⁶¹ The jingle celebrated his decision to protect himself and the narrator used Bert's example to teach viewers how they should respond to an atomic explosion, whether they are at school, on the playground, or walking home. The film told viewers to immediately drop to the ground and cover their heads when they see the bomb's flash because "if you duck and cover like Bert, you'll be much safer."⁶² To support this claim, the film described the effects of an atomic blast: "It could knock you down hard, or throw you against a tree or a wall...it can smash in buildings, knock signboards over, and break windows all over town." As the narrator offered these descriptions, the film showed blast forces shattering a farmstead and hurling debris across the screen, as one would see in a tornado. However, the camera then zoomed in on Bert the Turtle, who is tucked inside his shell beside the farmstead and remains unharmed by the blast because he 'Ducked and Covered'.

Imitating Bert's example would yield similar results, as lying prone reduced the chance of being struck by airborne projectiles or the blast force itself. Positioning yourself under a table or beside a wall further reduced the risk of being hit by debris. To minimize the risk of being burned by the explosion's heat energy, the film instructed viewers to cover

⁶¹ United States Office of Civil Defense, and Archer Productions.

⁶² Ibid.

their face and neck with their hands, outer clothing, or even a newspaper. The film assured viewers that such actions could save their lives when an attack occurred, and Bert the Turtle became the example for millions of students across the nation.⁶³ Although this film targeted younger audiences, its message was really one of empowerment for all Americans: every citizen could provide their own protection from an atomic blast. Anyone, even school children, could protect themselves if they followed Bert's example because "Duck and Cover" was simple, logical, and offered a limited level of protection to people located more than a mile beyond ground zero. Despite the bomb's destructive power, individuals could safeguard themselves through these basic steps.

Other civil defense agencies included "Duck and Cover" principles in their publications throughout the early 1950s. In *Protection from the Atomic Bomb*, Massachusetts officials taught readers to seek immediate shelter from an atomic explosion: "Don't run: there isn't time. Fall flat on your face. Get down fast!"⁶⁴ If caught outdoors, the booklet instructed citizens to protect themselves by dropping down (near a wall if they could) and covering themselves until the blast force passed. The Civil Defense Office of Denver offered similar advice, imploring residents to lie down when the bomb struck, whether they were outdoors or inside a building.⁶⁵ However, Denver officials went a step further by assuring residents that these measures were effective: lying prone reduced the risk of "blast injury [and] flash burns" since "[m]ore than half of all wounds result from being tossed about or from being struck by falling and flying objects."⁶⁶ Furthermore,

⁶³ Davis, *Stages of Emergency*, 106-107; United States Department of Homeland Security, *Civil Defense...Homeland* 8.

⁶⁴ *Protection from the Atomic Bomb*, Civil Defense Agency of the Commonwealth of Massachusetts, in Scheibach, "In Case Atom Bombs Fall," 86-87.

⁶⁵ *Just in Case Atom Bombs Fall*, Civil Defense Office of Denver, in Scheibach, "In Case Atom Bombs Fall," 104.

⁶⁶ *Ibid.*

covering your face would “prevent burns and temporary blindness.” Students in Washington, D.C. received similar instruction from civil defense authorities. If an attack occurred without warning, students were taught to “throw yourself face down in a protected spot, such as a gutter, a depression, or close to a wall” and “Cover yourself with anything at hand” for protection.⁶⁷ As civil defense officials across the nation advised residents to duck and cover during an atomic attack, they subtly reminded citizens that they were not defenseless against the atomic bomb. Citizens of all ages, including children, could learn this information from a ten-minute film and implement it without further training, equipment, or government intervention. Effective protection was available to every American, provided they participated in civil defense.

In summation, civil defense organizations across the United States responded to the threat of nuclear attack in similar ways. They partially acknowledged the atomic bomb’s power but presented an optimistic portrait of nuclear war by emphasizing the atomic bomb’s blast and heat effects and minimizing its radiation threat. They further believed that civil defense could protect the American people during an atomic attack if citizens were willing to embrace civil defense and implement its recommended measures. To convince citizens to bear the burden of civil defense, civil defense organizations appealed to Americans’ sense of duty and responsibility toward their communities and emphasized the simplicity and practical effectiveness of civil defense actions. Citizens could reasonably conclude that the bomb, while terrifying and highly destructive, was less threatening than it appeared to be in the wake of Hiroshima and Nagasaki. Its destructive capabilities had been exaggerated, but civil defense publications exposed these ‘myths’ and proved that

⁶⁷ The Public and Parochial Schools, *Attitudes and Behavior*, 14.

Americans could protect themselves and their family from these dangers. This message influenced how Fargoans answered the call for civil defense readiness in the early 1950s.

What Fargo Did: A Case Study in Early Civil Defense

Civil defense planning in the United States remained largely rhetorical between the conclusion of World War II and 1950, but two key events shook the nation out of this complacency. First, the Soviet Union ended America's atomic monopoly by exploding its first atomic bomb on August 29th, 1949.⁶⁸ Second, North Korean forces launched a surprise attack on South Korea, forcing the United States to wage a three-year war to contain the communist threat. Collectively, these developments increased Cold War tensions and convinced many Americans that something needed to be done to safeguard the nation against atomic warfare, which had become a distinct possibility. In response, federal officials discussed what could be done to protect the nation, such as stockpiling medical supplies, sheltering homeless survivors, and organizing relief efforts in the aftermath of an atomic attack.⁶⁹ As the NSRB published its recommendations in the "Blue Book" in September 1950, North Dakota began formulating its own protective plan.

The North Dakota Civil Defense Council was created by Governor Fred G. Aandahl in August 1950.⁷⁰ Operating under the leadership of Brigadier General Heber L. Edwards, the state's adjutant general, the council helped cities and counties prepare emergency plans for atomic and natural disasters. However, it possessed limited scope and power, as the governor believed the state's civil defense should rely on city-level organizations with county support rather than state directives. This decision paralleled the NSRB's view that civil defense should rely on individuals within their community, with state and federal

⁶⁸ United States Department of Homeland Security, *Civil Defense...Homeland*, 7.

⁶⁹ Robert S. Bird & Ogden R. Reid, "Defense Against A-Bomb Would Greatly Curtail Our Individual Liberties," *Fargo Forum*, August 5, 1950.

⁷⁰ "Unit Formed By Aandahl," *Fargo Forum*, August 9, 1950.

organizations helping as needed.⁷¹ The North Dakota Civil Defense Council delegated most of the actual preparation and planning for civil defense to local communities and largely left them to their own devices; the council failed to meet in the four years after creating its initial plans in 1951. This situation placed the chief responsibilities for civil defense planning on local communities, including Fargo.

In response to growing international tensions and Governor Aandahl's directive, Fargo Mayor Murray A. Baldwin formed the Civil Defense Committee in 1950.⁷² The committee was responsible for developing Fargo's civil defense plan and coordinating with neighboring communities as distant as Grand Forks and Valley City in North Dakota, and Fergus Falls and Detroit Lakes in Minnesota.⁷³ The committee was also responsible for the recruitment of local leaders and workers for key civil defense positions. Mayor Baldwin appointed six local leaders to the Civil Defense Committee, including former city commissioner William H. Toussaint and Fred S. Hultz, the President of the North Dakota Agricultural College (which later renamed itself North Dakota State University).⁷⁴ Throughout the fall of 1950, the committee met with local government officials, business leaders, and private citizens to create a citywide civil defense plan. Before examining this in detail, it is important to note that by creating its own civil defense apparatus, Fargo leaders embraced the core doctrine of self-protection espoused by the FCDA and similar organizations in the early 1950s. Fargo did not expect state or federal agencies to protect them from the ravages of atomic warfare. Instead, the city accepted the responsibility of

⁷¹ Executive Office of the President, National Security Resources Board, *United States Civil Defense*, 4.

⁷² Civilian Defense Meeting Speech, 29 November 1950, Box 4, Folder 9, President Frederic Samuel Hultz Papers, 1948-1961, NDSU Archives.

⁷³ "Touissaint is Appointed to Head Fargo's Civil Defense," *Fargo Forum*, August 1950.

⁷⁴ Civilian Defense Meeting Speech, 3; "Touissaint Is Appointed Head Fargo's Civil Defense," *Fargo Forum*, August 1950.

preparing its own civil defense measures, which the committee shared with residents later that fall.

On November 29th, the Civil Defense Committee unveiled its civil defense plan at a public rally attended by some 300 Fargo residents.⁷⁵ After showing “You Can Beat The Atom Bomb,” a film that outlined key details about radiation, the atomic bomb, and how people could protect themselves, the committee emphasized the urgent need for civil defense and the citizen’s responsibility to protect their community. Mayor Baldwin appealed to Fargoans’ obligations as American citizens and referred to their participation in civil defense as a “duty” toward “our homes, our cities and our nation” and a “tremendous responsibility” for individuals to embrace.⁷⁶ Note the similarity between Mayor Baldwin’s statement and those of civil defense publications across the nation – the individual, not the government, was responsible for protection against atomic attack as part of their civic duties.

As the meeting continued, Hultz outlined the details of Fargo’s official civil defense plan. The committee had formed eleven Activity Groups that focused on “a specific activity which is essential in times of catastrophe or disaster,” such as the provision of food or fuel, the maintenance of public utilities, and the organization of volunteer workers.⁷⁷ Committee-appointed chairmen led each Activity Group and organized the various resources related to the Activity Group, which might include government services, local businesses, or private citizens. For example, Lieutenant Colonel Stan Cowen of Fargo’s Civil Air Patrol led the Communications Activity Group and coordinated the actions of local

⁷⁵ “Fargo Civil Defense Workers Get Instruction on Duties,” *Fargo Forum*, 30 November 1950.

⁷⁶ *Ibid.*

⁷⁷ Civilian Defense Meeting Speech, 3. The committee created the following Activity Groups: Food, Fuel, Housing, Health, Safety, Defense, Communications, Transportation, Public Utilities, Education, and Volunteer Personnel.

media outlets (phone, telegraph, radio, and press) and citizen volunteers (ham radio operators and the local Boy Scouts) to ensure consistent communication between city leaders, Fargo citizens, and regional authorities if a Soviet attack materialized. The committee instructed each chairman to solve the problems associated with their field, as their collective solutions “form[ed] the basis for the procedures which civil defense will use in this area.”⁷⁸ This organizational scheme, including the appointment of the Activity Group leadership, was in place by November 1950; however, material preparations were incomplete since the Activity Groups had started meeting fewer than two months beforehand. Much work lay ahead in terms of recruiting subordinate leaders, establishing procedures, and securing the supplies and equipment necessary for Fargo to survive the ravages of modern war.

With the organization of leadership and material resources underway, Fargo’s Civil Defense Committee addressed the most challenging aspect of civil defense: citizen participation. At the November 1950 rally, Hultz stated that it would “require dependable effort on the part of many hundreds of civilians to accomplish...the objectives of an adequate CD program” in Fargo and Cass County, and Toussaint stated his intention to recruit 12,000 local volunteers to join the community’s civil defense effort.⁷⁹ To facilitate this effort, the committee divided Fargo into five “Areas” and appointed directors to oversee civilian preparations within their respective Areas. Each Area contained five or six “Districts,” which encompassed several city blocks and was overseen by a supervisor. At the block level, supervisors recruited air raid wardens and “other workers who will be especially trained for their duties there,” such as first aid workers or volunteers trained in

⁷⁸ Ibid., 5.

⁷⁹ Civilian Defense Meeting Speech, 6; “Fargo CD Workers Get instruction on Duties.”

recovery and rescue efforts.⁸⁰ This approach would enable “people in every Fargo home to protect themselves in event of emergency,” but this required many willing workers and considerable organization at the block level. Accordingly, the Personnel Activity Group surveyed local workers, in cooperation with their employers, to identify volunteers willing to receive civil defense training and serve their community. The committee had yet to identify those volunteers by the fall of 1950, but the primary elements of Fargo’s civil defense were in place: the committee had delegated authority to Activity Groups that oversaw preparations, community leaders were arranging for the city’s material and logistical relief, and Fargo’s citizens would soon embrace civil defense tasks and training to protect their families, neighbors, and community. Hultz expressed his confidence that by “[w]orking together, the job can be done.”⁸¹

Fargo’s Civil Defense Committee drew inspiration from other civil defense organizations of the early 1950s. The most striking influence lies in Fargo’s reliance on local resources and citizens to build a successful civil defense program, rather than expecting the federal or state governments to provide for the community’s needs. Although the FCDA repeatedly sought funds for tangible steps toward civil defense concepts, such as bomb shelters in urban areas or emergency equipment for local communities, Congress repeatedly declined such requests.⁸² Lacking the means to support a more substantial civil defense, the FCDA provided information rather than material provisions. It offered films and booklets covering basic survival measures that any American could follow, such as the famed duck and cover response to nuclear attack or how to prepare your home as a fortress against the bomb. David Mills argued that the lack of federal funding for civil defense

⁸⁰ Civilian Defense Meeting Speech, 5.

⁸¹ *Ibid.*, 6.

⁸² Mills, *Cold War...Cold Land*, 115; Rose, *One Nation Underground*, 24.

“virtually ensur[ed] that little was done due to budget constraints” at the state and local levels.⁸³ This situation placed most of the responsibility for survival and recovery on private individuals, with state and local governments contributing if they were able and willing.

Fargo’s Civil Defense Committee was forced to rely on the community and its resources – there was no mention of federal or state funding during the November 1950 rally.⁸⁴ When the committee met fifteen months later, federal assistance remained minimal. Fargo had received some FCDA informational material (including the film that was presented at the rally) and a small refund for their expenses, though records fail to specify whether this came from the federal or state government. Either way, Fred J. Wells, who had recently become Fargo’s civil defense director, was dissatisfied with the result – “perhaps something like \$800 in comparison with \$8000” that the committee had spent on civil defense measures.⁸⁵ His disappointment soon deepened – Fargo was unable to obtain medical supplies from the federal government, nor had the city even received the application forms for federal funding. Instead, the community’s fate remained dependent “upon active participation by every farm community and town in Cass County.”⁸⁶ This explains the committee’s decision to entrust key aspects of recovery (provision of food, transportation, communication, etc.) to local community members in each Activity Group. Outside assistance was not expected when an emergency arose – the community needed to fend for itself. Fargo’s civil defense required citizen volunteers to accept responsibility for protecting their community and selflessly serve as wardens, medics, rescue crews, and leaders.

⁸³ Mills, *Cold War...Cold Land*, 115.

⁸⁴ Civilian Defense Meeting Speech, 6.

⁸⁵ Civil Defense Meeting Notes, 20 February 1952, Box 17, Folder 3, President Frederic Samuel Hultz Papers, 1948-1961, NDSU Archives, 1.

⁸⁶ Civilian Defense Meeting Speech, 5.

Fargo borrowed other elements from federal, state, and regional civil defense guidelines, such as its emphasis on the value of civil defense in non-atomic emergencies. This was a consistent selling point in federal and state civil defense materials – preparations for an atomic attack could also protect people from natural disasters. Hultz noted this as early as November 1950 in response to those who questioned whether Fargo really needed a civil defense plan.⁸⁷ He argued that civil defense could help whenever the community had need and cited two recent examples: a snowstorm that imperiled life and property from “Ohio east to the Atlantic seaboard” and the Kew Gardens train crash in New York City, which killed 78 and injured more than 300.⁸⁸ In both cases, civil defense organizations assisted in the recovery efforts, likely by providing emergency supplies and manpower. Eighteen months later, Fargo’s civil defense responded to its own natural disaster – the flood of 1952, which posed a significant threat to the Fargo-Moorhead area.⁸⁹ In early April, the committee met with local law enforcement and the Red Cross to coordinate their response. The Medical, Canteen, Housing, and Communications Activity Groups facilitated emergency relief, and Wells personally warned households in affected areas of the flood’s imminent threat.⁹⁰ These examples demonstrated that civil defense was not solely useful for atomic attack but provided additional support during non-nuclear emergencies.

Fargo’s civil defense was available to assist with other community needs as well, such as a chest x-ray clinic in February 1952 that utilized resources from Fargo’s Medical

⁸⁷ *Ibid.*, 2.

⁸⁸ *Ibid.*, 2.

⁸⁹ “20 Pumps on Way Here To Combat Basement Water,” *Fargo Forum*, April 15, 1952; J.V.B. Wells, “Floods of 1952 in the Basins of the Upper Mississippi River and Red River of the North,” Water Supply Paper, January 1, 1994, <https://pubs.er.usgs.gov/publication/wsp1260C>.

⁹⁰ Civil Defense Meeting Notes, 8 April 1952, Box 17, Folder 3, President Frederic Samuel Hultz Papers, 1948-1961, NDSU Archives, 1. The Civil Defense Committee renamed the Health (Medicine) and Food (Canteen) Activity Groups sometime before the flood of 1952.

Activity Group.⁹¹ The Civil Defense Committee aided similar “X-Ray Units” two months later by asking local school students to “urge their parents to take advantage of this opportunity.”⁹² The committee’s decision to incorporate school children into civil defense activities may appear strange and perhaps unsettling to modern readers; however, Fargo’s planners borrowed the idea from other organizations that included children in their civil defense efforts. Recall that Washington, D.C. officials created *Attitudes and Behavior for Civil Defense* in cooperation with local schools to teach students how to protect themselves. The FCDA also taught American students how to react to an atomic attack, as demonstrated by *Duck and Cover* and air raid drills in classrooms across the nation. Atomic warfare threatened every citizen, including children; therefore, it was sensible (yet concerning) to incorporate students in civil defense planning. Fargo’s leaders simply followed the example set by other civil defense organizations.

Another example of civil defense’s peacetime utility involved Fargo’s block wardens, who stood ready to serve their community as the need arose. One block warden claimed that his “unit will be able to and willing to operate in any emergency – war or normal times,” or perhaps in this case, whenever the community needed extra manpower for mundane events.⁹³ In May 1951, Hultz organized block wardens to assist with the city’s annual Clean-Up Week because “the health and safety of this community are closely related to any program which prevents fires, and reduces hazards which may endanger the welfare of our citizens.”⁹⁴ While this may seem like an odd implementation of civil defense efforts, recall that other civil defense organizations often warned citizens that rubbish in homes

⁹¹ Civil Defense Meeting Notes, 20 February 1952, 3.

⁹² Civil Defense Meeting Notes, 8 April 1952, 3.

⁹³ Civil Defense Meeting Notes, 20 February 1952, 3.

⁹⁴ Correspondence to Duane A. Little, 3 May 1951, Box 11, Folder 20, President Frederic Samuel Hultz Papers, 1948-1961, NDSU Archives.

and neighborhoods would pose a fire hazard during a nuclear attack. *Survival under Atomic Attack* admonished readers to not “let trash pile up around your house” and encouraged “fireproof housekeeping.”⁹⁵ *Attitudes and Behaviors for Civil Defense* echoed these concerns: “Have a home clean-up campaign. Clean out all trash or anything that might be a fire hazard.”⁹⁶ In light of these recommendations, Fargo’s block wardens served their community and improved its safety by assisting with the Clean-Up Week. Fargo’s civil defense members stood ready to serve their community, whether in response to a nuclear attack, natural disaster, or to promote the public’s well-being; in this way, they proved that civil defense provided a valuable service to the community, in both war and peace.

A final similarity between Fargo’s plan and recommendations from other civil defense organizations lies in how Fargo structured its civil defense apparatus. Recall that Mayor Baldwin appointed a committee, which formed eleven Activity Groups to oversee local resources and recruited Fargoans to implement the city’s response to an enemy attack. This structure is remarkably similar to recommendations from the NSRB’s “Blue Book,” which was released just as Fargo began its civil defense preparations. The NSRB placed authority under the city mayor, who received assistance from an “advisory council” and a civil defense director.⁹⁷ Beneath these leaders, an assortment of “assistant directors” oversaw vital resources, such as emergency services, community healthcare, transportation, and communication. Fargo’s organization closely mirrored these aspects of the NSRB’s recommendation, and though this may be due to its obvious logic, it is also likely that Fargo drew inspiration from this document in building its civil defense infrastructure.

⁹⁵ Executive Office of the President, National Security Resources Board, *Survival under Atomic Attack*, 14.

⁹⁶ The Public and Parochial Schools, *Attitudes and Behavior*, 13.

⁹⁷ Executive Office of the President, National Security Resources Board, *United States Civil Defense*, 125.

A more direct reflection of the “Blue Book” is the division of Fargo into civil defense sections. The NSRB recommended that each block warden oversee an “operating unit” of about 500 residents, and these “operating units” would be organized into districts or areas depending on a city’s size.⁹⁸ Fargo’s civil defense plan imitated this structure by organizing five Areas containing several Districts and dozens of block wardens within them.⁹⁹ The fact that the committee used the same terminology as the “Blue Book” further suggests a reliance on the NSRB’s recommendations in forming their plans. This represents yet another way that Fargo’s civil defense planning benefitted from the work of other civil defense organizations.

Within one year of Governor Aandahl’s call for civil defense preparations in North Dakota, Fargo’s Civil Defense Committee had created a reasonable plan for disaster recovery. Based on recommendations from federal, state, and municipal civil defense organizations, Fargo recruited local experts to address the city’s emergency needs and mobilize its resources accordingly. They assigned block wardens to Fargo’s neighborhoods and offered training to volunteers who seemed willing to serve their community if the need arose. By 1952, the city had installed air raid sirens to warn the city of impending attack, volunteers vigilantly scanned the skies for enemy bombers as part of the Ground Observers Corp, and the committee considered a special telephone system that could provide early warning to members of the civil defense establishment.¹⁰⁰ The city’s progress led Wells to confidently assert that “the Fargo CD organization is or will be certified to the federal government as ready to take over an emergency condition resulting from an air raid.”¹⁰¹

⁹⁸Ibid., 42-3.

⁹⁹ Civilian Defense Meeting Speech, 5.

¹⁰⁰ Civil Defense Meeting Notes, 20 February 1952, 2; Civil Defense Meeting Notes, 8 April 1952, 3; “Casper Is One Of 11 Filter Centers,” *Casper Tribune-Herald*, 8 March 1951.

¹⁰¹ Civil Defense Meeting Notes, 8 April 1952, 4.

Despite these assurances, Fargo's civil defense plan possessed a significant weakness that imperiled the entire operation: the human element. The committee recognized this problem early in its planning, as Hultz noted that "there can be no weak links in the chain (of civil defense preparations)." ¹⁰² Fargo's survival and recovery would rest upon willing and dependable volunteers, but this only worked if people answered the call for civil defense.

Limitations in Fargo's Civil Defense

Securing the cooperation of willing volunteers proved to be a daunting task for Fargo's civil defense plan. Surprisingly, Fargo's civil defense leaders were quite likely to resign from their responsibilities. Barely five months after Hultz emphasized the need for dependable volunteers, Frank Barrow and A. O. McClellan had resigned from the Civil Defense Committee.¹⁰³ Their departure likely disrupted preparations for civil defense and imperiled the city's response to an emergency, whether from war or natural disaster. The committee soon promoted two Activity Group chairmen to fill these vacancies; C. Warner Litten (Health) and Stanley Cowan (Communication) stepped into the vacated positions while apparently retaining their previous responsibilities, as neither the Health nor the Communication Activity Groups appear on the April 1952 emergency contact list. To make matters worse, the chairmen of the Food, Transportation, and Volunteer Personnel Activity Groups also required replacement by the spring of 1951. The committee entrusted Activity Group leaders with the detailed planning and preparation that was necessary for protection, but these vacancies further hampered Fargo's emergency readiness. Personnel changes are to be expected when organizing people into hierarchies of authority – any business, school, or government agency frequently deals with similar issues. However, the

¹⁰² Civilian Defense Meeting Speech, 6.

¹⁰³ Fargo Civil Defense Call List, 2 April 1951, Box 11, Folder 20, President Frederic Samuel Hultz Papers, 1948-1961, NDSU Archives, 2.

rapidity of these departures likely disheartened those who remained. Why had they abandoned their responsibility to the community, after Hurtz argued that “This is no time for complacency, for hesitancy in assuming one’s obligation” toward their community?¹⁰⁴ Maybe the committee expected too much from its volunteers, or perhaps personal circumstances persuaded Barrow, McClellan, and other officials to end their involvement. The answer remains elusive, but the lack of willing and dependable leadership weakened Fargo’s civil defense readiness.

These problems may explain a significant shift in civil defense leadership that occurred sometime between April 1951 and February 1952. Fred J. Wells, chief of Fargo’s fire department, became Fargo’s civil defense director.¹⁰⁵ Wells tried to intensify preparations for emergency situations and galvanize greater interest and participation in local civil defense. He was more successful in the former than the latter, for Fargo’s Civil Defense Committee took tangible steps toward defense readiness under his leadership. The committee considered adopting the Bell Light system, a specialized warning device that would notify military and civil defense members of an impending attack. Alerted personnel could initiate emergency measures before air raid sirens alerted the public, and even a few moments of advanced warning could prove significant during an attack.¹⁰⁶ While the committee did not make a conclusive decision regarding this system, they addressed other material needs under Wells’ leadership. They ordered instructional materials for Fargo’s block wardens, which apparently were in high demand, leading Wells to conclude that the community was becoming more interested in civil defense planning.¹⁰⁷ In 1952, Fargo installed air raid sirens in the downtown area, at Hector Airport, and in residential areas,

¹⁰⁴ Civilian Defense Meeting Speech, 2.

¹⁰⁵ Civil Defense Meeting Notes, 20 February 1952, 1.

¹⁰⁶ *Ibid.*, 1-2.

¹⁰⁷ Civil Defense Meeting Notes, 8 April 1952, 3-4.

thereby ensuring that every citizen would be alerted if an emergency arose. The committee worked toward acquiring modern communication equipment that would facilitate post-attack recovery but did not have much success despite spending \$14 on long distance calls (\$135 when adjusted for inflation).¹⁰⁸ Fargo lacked sufficient medical supplies and sought federal assistance in meeting this need, requesting \$8,000 in refunds for past expenses (more than \$78,000 when adjusted for inflation). Again, these requests were largely denied, leaving Fargo to foot the bill for civil defense. In 1952, Fargo worked to improve its material preparations for civil defense with limited success, and Wells might have congratulated himself for this progress if he could ignore continued manpower problems within the civil defense apparatus.

Despite the renewed energy and enthusiasm that Wells brought to Fargo's civil defense efforts, the human element continued to be the weak link in the chain.¹⁰⁹ The committee again struggled to find dependable leadership for their program. Committee member C. Warner Litten, who had replaced a departing committee member while retaining control of the Health Activity Group in 1951, requested to have someone else take care of civil defense's medical aspects; the committee approved his request.¹¹⁰ Additional replacements were needed in other key areas: Ray Murphy stepped down as chairman of the Transportation Activity Group, Ken McKinnon resigned from his duties as Director of Area E, and at least three members of the Food Activity Group committee stepped down as well.¹¹¹ No explanation is offered for why these leaders ended their service in civil defense, but Wells provided one possible answer at a civil defense meeting on February 18th, 1952.

¹⁰⁸ Civil Defense Meeting Notes, 20 February 1952, 1.

¹⁰⁹ Civilian Defense Meeting Speech, 6.

¹¹⁰ Civil Defense Meeting Notes, 8 April 1952, 4.

¹¹¹ Civil Defense Meeting Notes, 20 February 1952, 1; Civil Defense Meeting Notes, 8 April 1952, 4.

During the meeting's opening moments, he noted that "there [was] a definite lack of cooperation on the part of several members" and argued that only willing and dependable volunteers should be involved in civil defense preparations.¹¹² As Fargo's fire chief during this time, Wells was likely accustomed to a work environment in which subordinates followed orders with efficiency and precision, which is critical in responding to structural fires or car accidents. As the director of Fargo's civil defense, however, he faced an entirely different situation in working with volunteers who were only useful when they were willing to offer their services. The inconsistency among civil defense volunteers likely frustrated Wells and provoked his statements before the committee; perhaps it even persuaded some members to abandon their posts.

Another possibility is apathetic attitudes toward civil defense, which was common across the nation and within North Dakota as well.¹¹³ Lieutenant Colonel Noel F. Tharoldson, leader of North Dakota's civil defense organization in the 1950s, lamented that "If you talk to North Dakotans about the possibility of bombing raids, they'll laugh and turn their backs. They just won't believe that an enemy bomber would bother with the wide open spaces around the state."¹¹⁴ This nonchalant attitude may have affected members of the Housing Activity Group, because when asked for an update on the Group's progress in February 1952, they reported that no official meetings had occurred, but that they "[s]ometimes see each other on the street and have talked the deal over during those times."¹¹⁵ Their reliance on random meetings hardly inspired confidence in the Activity Group's preparedness for an emergency. At the same time, it appears that Fargo and Cass County officials were not maintaining communications regarding civil defense, a condition

¹¹² Civil Defense Meeting Notes, 20 February 1952, 2.

¹¹³ Mills, *Cold War...Cold Land*, 113, 124.

¹¹⁴ *Ibid.*, 124.

¹¹⁵ Civil Defense Meeting Notes, 20 February 1952, 2.

that Wells found unacceptable. If apathy was present among volunteers who remained active in civil defense, it is plausible that those who resigned expressed similar attitudes. While apathy and vacancies among committee and Activity Group leaders hindered civil defense preparations, the committee usually found replacements for these positions; however, Wells' frustration surely increased when he considered the civil defense readiness among ordinary Fargo citizens.

Willing workers proved lacking in the higher echelons of Fargo's civil defense program, but it was also quite common at the Area and Block level. Recall that Fargo was divided into five Areas, each with five or six Districts that consisted of a couple dozen blocks. Each Area had a director, each District had a supervisor, and each Block had a block warden. The Civil Defense committee expected Area directors to track the progress and needs within their assigned zones, including the availability of block wardens. Reports on each Area's readiness in February 1952 suggested that most Area directors did not take their duties seriously, as only Area A had anywhere near their full number of block wardens (93 percent). Areas C and D had met 65 percent of their needs, while Areas E and B struggled along at 55 percent and 50 percent, respectively.¹¹⁶ This means that much of Fargo lacked the requisite 'boots on the ground' to enact emergency measures during an attack, such as the communication of vital information, the evacuation of the city, or recovery operations. It is unclear whether the vacancies resulted from the unwillingness of Fargoans to serve as block wardens, or if the Area directors had never bothered to identify block wardens in the first place. In either case, the low numbers suggest that most Area directors were not fulfilling their duty to identify and organize volunteers (including block wardens) to meet Fargo's civil defense needs. If they had done their jobs properly, there

¹¹⁶ Ibid.

would have been far fewer vacancies among the block wardens in 1952. The dearth of volunteers imperiled many Fargo neighborhoods; without these vital links in the civil defense chain, the community remained unprepared to face an atomic emergency.

When the Civil Defense Committee met again two months later, the Area directors provided updated reports on block warden readiness. Their reports contained far more detail than those of February, but these new details failed to significantly improve the overall status of Fargo's readiness. Out of Fargo's 25 Districts, only four reported as "complete," "O.K.," or in "good shape."¹¹⁷ In stark contrast to the four Districts that were prepared, nearly one third of the Districts offered no report at all. This lack of reporting suggests that several District supervisors and Area directors bore the blame for Fargo's lack of preparedness, as they had no idea whether their communities were ready to respond to an emergency. The remaining Districts lacked some aspect of the civil defense apparatus. Most Districts mentioned specific Blocks that needed block wardens, and several Districts reportedly lacked a supervisor as well. At least 54 Blocks reported that they needed block wardens, though the number could be much higher since Districts 2-4 from Area B claimed readiness rates of 65 percent, 40 percent, and 50 percent, respectively (not to mention the eight Districts that failed to report anything about their status). In the two months since first reporting their readiness, some Areas found room for optimism; Area E, for example, reported that most Districts could "take care of their own needs" in April, which was an improvement over the 55 percent readiness in February. Other Areas remained in poor shape; Area C had claimed 65 percent readiness in February but lacked reports from four of its five Districts in April. Overall, the continued need for more volunteers outweighed any gains made since February. The April reports failed to inspire much confidence among

¹¹⁷ Civil Defense Meeting Notes, 8 April 1952, 2-3.

committee members, and they concluded that recruiting “block wardens for the areas in need [was] the most important” way to improve the city’s civil defense.¹¹⁸ The committee needed a way to acquire more volunteers if homegrown civil defense were to protect Fargo from harm.

Whether these problems were caused by the incompetence of Area directors and District supervisors, or from apathy among potential volunteers, the Civil Defense Committee considered several solutions to the volunteer shortage. One option was to increase publicity for the needed positions. This could take several forms, such as announcements in local newspapers and radio broadcasts, promotional flyers distributed to businesses and households, or persuading school children to pressure their parents into service. The committee had previously used each method to inform the public about civil defense preparedness and identify candidates for service, but they doubted whether it would work this time.¹¹⁹ One committee member was particularly opposed to this approach and argued that “no amount of publicity would do any more good than it had in the past”; apparently similar efforts had produced poor results.¹²⁰ Wells resisted this negativity and believed that additional promotional materials would prove useful once they arrived; however, he reluctantly agreed that this was insufficient on its own and looked for other ways to recruit willing volunteers.

The Civil Defense Committee soon devised a novel recruitment tool: a certificate of merit. The FCDA and similar organizations invited volunteers to sacrifice their time and energy to help their community and protect their families; beyond that, there was little room for personal gain. This approach had failed to meet Fargo’s needs, so the committee

¹¹⁸ *Ibid.*, 4.

¹¹⁹ Civil Defense Meeting Notes, 8 April 1952, 3; Civil Defense Meeting Notes, 20 February 1952, 2.

¹²⁰ Civil Defense Meeting Notes, 8 April 1952, 3.

chose to reward faithful block wardens. Under the initial plan, the committee would present certificates to block wardens who fulfilled the recruitment requirements for their assigned space.¹²¹ No definition is offered for determining when “complete” organization was achieved, but one can reasonably conclude that it might entail the distribution of booklets, recruitment of volunteers for civil defense training, and perhaps the identification of neighborhood volunteers to house refugees after an attack occurred. The committee found inspiration in the efforts of Clinton Johnson, a Fargo resident from California who took his role as block warden very seriously. He was mentioned before the committee as someone who had “worked toward full control of everyone in his block... [and had] a good idea of the physical condition, age, etc. of all” citizens within his area of responsibility.¹²² Having achieved this by befriending his neighbors and making his home available for civil defense meetings, Johnson provided a model of what a block warden should be: dedicated, selfless, and reliable. The committee reasoned that such service and commitment might be publicly recognized in some way, thereby offering a personal incentive for citizens to volunteer for service.

Fargo’s Civil Defense Committee placed great hope in the block warden certificate’s ability to encourage greater volunteerism in their community. However, two issues limited the practicality of using certificates to attract potential block wardens. First was the cost of printing the documents, which committee members estimated at \$33, or about \$320 when adjusted for inflation. While this seems like an insignificant expense today, it is worth remembering that practically every civil defense organization was chronically underfunded throughout most of the Cold War. Recall that Mills identified money as one of the crucial

¹²¹ Civil Defense Meeting Notes, 20 February 1952, 2.

¹²² *Ibid.*, 2.

explanations for the nation's inability to mount an effective civil defense effort.¹²³ Upon learning of the certificates' cost, Fargo's Civil Defense Committee questioned whether sufficient funds existed for this expense, and the incentive option might have been scrapped entirely were it not for the timely intervention of Allied Printing, a local business which offered to print the certificates as their contribution toward civil defense.¹²⁴

The second issue concerned the criteria for rewarding the certificates to block wardens. Civil defense leaders formed a Merit Committee to determine the certificate's format and criteria, but they soon abandoned the idea of rewarding wardens for completing their duties in favor of rewarding one's length of service. The reasoning behind this decision is unclear; perhaps it was too difficult to measure recruitment progress, or they were concerned that this would present civil defense as a finish line to reach rather than a continual process toward greater protection. The more pessimistic view is that the committee feared setting their expectations impossibly high and making it too difficult to receive the award, which would not attract prospective wardens toward the program. Either way, the committee chose to award the certificate based on the duration of a warden's services. This increased the likelihood of earning this honor, but it also lowered the incentive's requirements and limited the award's impact on Fargo's civil defense readiness, as the award offered wardens little incentive to perform their duties well. Despite this shortcoming, the Merit Committee decided that a pre-determined length of service during the "present emergency" would have to suffice.¹²⁵ The time frame was intentionally vague, as the Merit Committee was unable to agree upon a suitable service

¹²³ Mills, *Cold War...Cold Land*, 133.

¹²⁴ Civil Defense Meeting Notes, 8 April 1952, 3.

¹²⁵ Correspondence to W. E. Allen, 11 April 1952, Box 39, Folder 21, President Frederic Samuel Hultz Papers, 1948-1961, NDSU Archives, 2.

requirement.¹²⁶ Regardless of these limitations, the committee arranged for the printing of the certificates; however, records fail to indicate whether this policy succeeded in persuading citizens to become block wardens. Either way, the need for some incentivizing device illustrates the challenges Fargo faced in enacting its civil defense plans during the early 1950s.

Conclusion

Fargo heavily relied on guidance from outside civil defense organizations in preparing itself for atomic warfare. The Civil Defense Committee utilized the NSRB's structural schema to create Activity Groups that oversaw the organization of key human and material resources. They divided the city into Areas, Districts, and Blocks to simplify the implementation of civil defense measures and recruited local leaders to oversee preparations at each level. Furthermore, Fargo's civil defense served the community by responding whenever the need arose, even if it did not involve an enemy bombing raid. The city's civil defense apparatus responded when the Red River flooded in 1952, promoted the public's welfare through several health opportunities, and encouraged participation in the community's clean-up week. Each mobilization fell in line with established civil defense doctrine, which promoted the utility of its recommendations for non-nuclear emergencies and community needs. In this matter, Fargo's government sought to emulate preparations and activities that were occurring across the nation in the early 1950s.

The most significant influence from other civil defense organizations was Fargo's reliance on local resources and volunteers, but this proved to be the city's greatest struggle in preparing for the bomb. Chains of command, informational publications, and emergency

¹²⁶ President Hultz initially set the service requirement at one year, but W.E. Allen argued that this was too long and argued instead for six months' service and compliance with the "training and instruction...prescribed by the Fargo Civil Defense." They agreed to let the Civil Defense Committee make the final decision, but records fail to note their ultimate decision.

drills were relatively easy to establish but persuading Fargoans to participate in civil defense was a different matter altogether, as evidenced by the frequent personnel changes among civil defense leadership and the numerous vacancies for block wardens across the city. The Civil Defense Committee had adopted the prevailing wisdom in entrusting private citizens with the responsibility for civil defense, but Fargoans' unwillingness to protect themselves made the entire community vulnerable as the Cold War dragged on. Appeals to civic duty and simple, effective measures failed to stimulate sufficient interest in civil defense matters in Fargo.

Fargo's experience in the early 1950s illustrates a potential drawback of entrusting critical needs to local governments and their communities: if they lack the resources or desire to provide for themselves, those needs may go unmet. In this case, the federal government arguably empowered communities to take tentative steps toward readiness; they conducted research on atomic threats and the aftermath of the Hiroshima and Nagasaki detonations, shared these findings with the American people, and offered guidance on how to protect their communities through civil defense measures. In Fargo's case, however, limited assistance proved unable to stimulate a sufficient response and provide measurable protection. Fortunately, Fargo's lack of civil defense readiness was not put to the test through atomic warfare; however, even if Fargoans had risen to the challenge of fully embracing civil defense practices, new developments in nuclear weaponry rendered these preparations obsolete within a matter of months. The federal government was again asked to safeguard its citizens against nuclear weapons, and the resulting discussion serves as the basis for the following chapter.

CHAPTER 2. THE HYDROGEN BOMB AND THE END OF “DUCK AND COVER”

By 1952, Fargo had constructed a decent civil defense framework by relying on advice from outside agencies and utilizing local resources. Despite concerns over the dependability of its volunteers, there was hope that eventually Fargo could provide for its needs in an atomic emergency. However, by the decade's end troubling technological developments had turned the nuclear world upside down and called the nation's civil defense into question. Before considering how Fargo responded to these circumstances, it is necessary to understand the new challenges posed by the hydrogen bomb and how federal officials attempted to salvage some semblance of protection under the mantle of civil defense.

This chapter examines the hydrogen bomb's implications for civil defense and traces federal efforts to address the threat posed by thermonuclear warfare. Initially, the FCDA believed distance was the only practical protection against the hydrogen bomb and therefore embraced evacuation as their preferred policy. Despite support from President Dwight D. Eisenhower and congressional leaders, the discovery of lethal radioactive fallout after the BRAVO test jeopardized evacuation as a viable option. Independent scientists called for a reassessment of the nation's vulnerabilities while congressional committees criticized the FCDA's leadership and policies, explored other defenses against the invisible yet lethal particles, and called for greater federal leadership in civil defense matters. The FCDA dismissed these suggestions for a time, but mounting pressures persuaded Eisenhower to take limited and ineffective action to safeguard the nation. As Eisenhower's presidency ended, the early civil defense measures adopted by Fargo lay in question due to thermonuclear weapons while federal inaction offered little hope of building an effective civil defense system.

The Eisenhower Administration Shuns Civil Defense

When Eisenhower became the thirty-fourth president of the United States on January 20, 1953, civil defense leaders might have hoped he would bring major improvements to the nation's protective readiness. As Supreme Commander of the Allied Expeditionary Force in Europe during World War II, Eisenhower witnessed the terrible destruction unleashed as American and British bomber forces targeted German cities to destroy industrial capacity and erode civilian morale (though both efforts proved less effective than Allied commanders had hoped). Having seen the devastation wrought by strategic bombers with conventional explosives, Eisenhower understood the increased vulnerability of American civilians in a nuclear conflict. His concern surely increased when the Soviet Union detonated its own atomic bomb in the fall of 1949 and began constructing a fleet of long-range bombers that could strike American cities.

However, Eisenhower was reluctant to invest in civil defense during his presidency. To protect the American people, Eisenhower instead embraced a policy of 'massive retaliation', whereby atomic weapons would be used against any threat to the nation or its interests. He hoped to prevent an atomic attack by forcing the Soviet Union to decide between peace or annihilation.¹²⁷ This approach dovetailed neatly with another Eisenhower priority: balancing the federal budget. Eisenhower wanted to sustain the nation's thriving economy while protecting American interests, but a massive conventional military buildup would sacrifice the former for the latter. Rather than matching the Soviet Union tank-for-tank and ship-for-ship, the United States would save money and maintain peace by relying on nuclear weapons. Eisenhower's cost-saving mentality also limited his support for additional federal civil defense measures.¹²⁸ Fearing that the federal government might be

¹²⁷ Rose, *One Nation Underground*, 19.

¹²⁸ United States Department of Homeland Security, *Civil Defense...Homeland*, 9.

forced to “shoulder the entire burden for civil defense,” a highly expensive prospect, he assigned the primary responsibility for civil defense to state and local governments.¹²⁹ Eisenhower further believed that citizen participation was necessary for an effective civil defense program and that their involvement would diminish if the federal government played too great a role.¹³⁰

To support his plan of limited federal action, Eisenhower appointed former Nebraska governor Frederick ‘Val’ Peterson as FCDA director in February 1953. It is unclear whether Peterson truly agreed with Eisenhower’s priorities or simply sought future advancement through faithful service, but Peterson embraced Eisenhower’s views and limited the FCDA’s responsibilities and financial footprint throughout his tenure. For example, while the former FCDA director, Millard Caldwell, had sought matching federal funds for states to identify and reinforce existing structures as bomb shelters, Peterson scrapped this plan and praised congressional leaders for rejecting Caldwell’s request for federally funded shelters.¹³¹ Rather than bearing the responsibility for funding and constructing civil defense shelters, Peterson’s FCDA would advise the states on protective measures and facilitate the stockpiling of emergency supplies, leaving state and local governments to pay for their own protection.¹³² Thus the nation’s civil defense operated largely as it had before, with the FCDA in an advisory role and local communities possessing the greater burden in making civil defense a reality. However, new developments soon revealed the need for a revision of Peterson’s civil defense approach.

¹²⁹ Ibid.

¹³⁰ Thomas J. Kerr, *Civil Defense in the U.S.: Bandaid for a Holocaust?* (Boulder: Westview Press, 1983), 98.

¹³¹ B. Wayne Blanchard, “American Civil Defense 1945-1984: The Evolution of Programs and Policies” (Government Document, Emmitsburg, 1985), 4; Kerr, *Bandaid for a Holocaust?*, 89; Rose, *One Nation Underground*, 24.

¹³² Ibid, 4.

The Hydrogen Bomb Leads to Evacuation

On November 1, 1952, three months before Peterson took charge of the FCDA, the United States detonated the world's first thermonuclear (or hydrogen) weapon, codenamed "Mike." Using an atomic bomb's fission process to initiate the fusion of hydrogen and helium, the hydrogen bomb possessed a destructive capacity that dwarfed the atomic explosions that devastated Hiroshima and Nagasaki.¹³³ "Little Boy" and "Fat Man" were measured in kilotons, or thousands of tons of TNT, but scientists calculated the Mike blast to be 10.4 megatons, or 10.4 million tons of TNT.¹³⁴ Mike created a fireball three miles wide, vaporized Eleugelab (an island in the Marshall Islands, located about three thousand miles from Hawaii), and carved a crater 200 feet deep and one mile across, throwing eighty million tons of radioactive debris into the atmosphere in the process.¹³⁵ While the Mike bomb was so large that it could not be dropped on an enemy target, scientists and government officials knew it was only a matter of time before the Soviet Union created its own thermonuclear weapons.¹³⁶

The Mike blast forced FCDA officials to rethink their policy of sheltering in place during an enemy attack since there was very little chance of surviving anywhere near ground zero. Dr. Willard Libby, a leading official for the Atomic Energy Commission (AEC), described a Mike-sized hydrogen bomb as a "city pulverizer."¹³⁷ Its blast would demolish "reinforced concrete buildings with 10-inch walls and 6-inch floors" within three miles of

¹³³ Gregg Michael Fehr, "Sheltering Society: Civil Defense in the United States, 1945-1963" (doctoral dissertation, Texas Tech University, 1999), 138, 144.

¹³⁴ Fehr, "Sheltering Society," 138; Maloney, *Emergency War Plan*, 75. The blast was so large that it took scientists several months to determine its actual strength, with estimates ranging from 6 to 20 MT.

¹³⁵ *Ibid.*, 144.

¹³⁶ Merrill Fabry, "What the First H-Bomb Test Looked Like," *Time*, *Time Magazine*, November 2, 2015, <https://time.com/4096424/ivy-mike-history/>

¹³⁷ Mary M. Simpson, "A Long Hard Look at Civil Defense: A Review of the Holifield Hearings," *Bulletin of the Atomic Scientists* 12, no. 9 (1956): 344.

the blast, severely damage homes up to twelve miles from the blast, and produce third-degree burns on anyone eleven miles away.¹³⁸ Dr. Libby further noted that beyond these radii, potential damage fell off drastically, but this offered small comfort to the millions of Americans living in metropolitan areas. Based on these estimates, Mike “could level New York City. The fireball alone would cover an area the size of Manhattan. Temperatures within the mass of boiling gasses would reach...the temperature of the sun’s surface.”¹³⁹ At the time of the Mike test, FCDA recommendations still emphasized “Duck and Cover” as a reasonable protective measure against enemy attack, but Peterson realized that even Bert the Turtle could not withstand such firepower – at best, it would place “35 million Americans in the sitting-duck category,” which he labeled an act of “sheer suicide.”¹⁴⁰ Faced with these harsh realities, the FCDA explored two alternative ways to protect American citizens from nuclear attack: blast shelters (which protected occupants against a bomb’s blast and heat effects) and evacuation.

The FCDA had considered blast shelters ever since the Soviet Union tested its first atomic bomb in 1949. As previously noted, the FCDA proposed constructing blast shelters under the Caldwell administration but to no avail, largely due to their high construction costs. Caldwell asked Congress for matching federal funds to help state governments identify and operate shelters annually from 1951 to 1953, but congressional leaders consistently refused to pay for any type of shelter program.¹⁴¹ In light of this obstinance, Peterson considered it foolhardy to ask Congress to build blast shelters against the hydrogen bomb.¹⁴² Furthermore, he believed blast shelters to be dramatically less effective

¹³⁸ Ibid.

¹³⁹ Fehr, “Sheltering Society,” 145.

¹⁴⁰ Ralph E. Lapp, “Civil Defense Faces New Peril,” *Bulletin of the Atomic Scientists* 10, no. 9 (1954): 349.

¹⁴¹ Rose, *One Nation Underground*, 24.

¹⁴² Kerr, *Bandaid for a Holocaust?*, 61.

against a Mike-sized weapon. First, they had to be built deep underground to escape the bomb's blast and heat damage, a fact which made them both difficult to construct and prohibitively expensive. Even if they were built, many experts believed that "American cities would be doomed in the event of a nuclear attack, regardless of shelter efforts."¹⁴³ If a shelter's occupants survived the explosion, the bomb's aftermath could prevent them from leaving the shelter. The blast force would cause buildings to topple sideways or collapse inward, thereby blocking shelter exits, and the bomb's heat would spark massive firestorms that prevented escape or consumed the oxygen around the shelters, suffocating the occupants. Whether from entombment or asphyxiation, Peterson feared that hydrogen bombs "could turn such public shelters into death traps in our large cities."¹⁴⁴ Even if the FCDA had thrown its support behind a national shelter system, officials worried that their construction and provisioning would take too much time.¹⁴⁵ Each day spent constructing the many thousands of requisite structures meant another day when millions of Americans lay at the mercy of the Soviet nuclear arsenal. Due to their high cost, questionable protective value, and their inability to offer immediate protection, the FCDA rejected blast shelters as a defensive measure in the new age of thermonuclear warfare.

Having dismissed blast shelters, Peterson and the FCDA next considered whether evacuating American cities prior to enemy attack might offer an alternative solution. The concept was simple: once military personnel detected an imminent Soviet attack, the FCDA would notify state and local civil defense officials, who would commence a mass exodus from the nation's cities before enemy bombs found their targets. Civil defense leaders must have recognized the challenges involved in moving millions of Americans 15 miles away from

¹⁴³ United States Department of Homeland Security, *Civil Defense...Homeland*, 9.

¹⁴⁴ Rose, *One Nation Underground*, 24.

¹⁴⁵ Fehr, "Sheltering Society," 155-6.

metropolitan areas, which was the minimum safe distance from a Mike-sized explosion.¹⁴⁶ However, Peterson was convinced that evacuation was the only way to safeguard civilian lives against hydrogen bombs. He and other civil defense officials cited several factors that made evacuation an appealing option.

First, evacuation could save lives if citizens moved a sufficient distance away from target cities. While hydrogen bombs dwarfed their smaller fission cousins, their destructive power was not infinite and the threatening trio of blast, heat, and immediate radiation rapidly lost their potency as distance increased from ground zero.¹⁴⁷ Rather than attempt to shield people from these effects, why not simply remove them from the impact area? Believing there was no plausible way to withstand the hydrogen bomb's power, Peterson argued that "the only real weapon that civil defense has against an atomic attack, is space."¹⁴⁸ After viewing footage of the Mike explosion, he repeated this view before the House Appropriations Committee, stating "there is only one way any person can be certain he will be alive after an atomic bomb goes off over his town. That is *simply not to be there*" (emphasis added).¹⁴⁹ It should be noted that while the Mike test produced immense amounts of radioactive fallout, officials failed to recognize this at the time because they only measured the immediate radiation from the explosion itself. The fallout threat would not be understood until the Bravo test, some sixteen months later.¹⁵⁰ For the time being, evacuation seemed to offer a practical safeguard against the hydrogen bomb's known threats.

¹⁴⁶ Ralph E. Lapp, "An Interview with Governor Val Peterson," *Bulletin of the Atomic Scientists* 10, no. 10 (1954): 376.

¹⁴⁷ Simpson, "A Long Hard Look," 344.

¹⁴⁸ Lapp, "An Interview with Governor Val Peterson," 376.

¹⁴⁹ Committee on Appropriations, *The Supplemental Appropriation Bill: Hearings before Subcommittees of the Committee on Appropriations* (Washington, D.C.: United States Government Printing Office, 1954), 152.

¹⁵⁰ Maloney, *Emergency War Plan*, 76, 113.

A second factor in evacuation's favor was the immediacy of the protection it offered American citizens.¹⁵¹ While it would take time to develop the precise details of an evacuation plan, such as the identification and communication of evacuation routes, Peterson believed this process to be much quicker than shelter construction. Furthermore, evacuation plans could save lives immediately. Once they understood an evacuation policy, "city police and civil defense personnel could do more than throw up their hands in despair over the shelters that had never been built. They could do more than tell people to duck down, cover their heads, and pray. They could attempt to effect mass evacuations and save lives."¹⁵² Evacuation empowered civil defense officials to act right away; they need not hope for the Soviet Union to delay an attack until a distant future when shelters crisscrossed the United States.

A third benefit of evacuation was that it would not arouse the ire of frugal politicians, as evacuation protocols were far cheaper than shelter construction. As previously noted, Congress historically refused to fund major civil defense initiatives; this lack of funding had doomed the Caldwell-era shelter programs and would imperil any such plan submitted by Peterson. In contrast, evacuation was a cheap alternative that placed the financial burden on civilians in the form of automobile maintenance and pre-positioned emergency supplies. At the time, the FCDA believed they could quickly evacuate major cities without significant federal monies (though later studies revealed the need for costly infrastructure improvements if evacuations were to succeed).¹⁵³ The low cost of evacuation policies also garnered support from Eisenhower, who had promised to balance the federal budget in support of economic growth.¹⁵⁴ Additionally, evacuation lent further credibility to

¹⁵¹ Fehr, "Sheltering Society," 155-156.

¹⁵² Ibid, 156.

¹⁵³ Kerr, *Bandaid for a Holocaust?*, 79.

¹⁵⁴ United States Department of Homeland Security, *Civil Defense...Homeland*, 10.

the interstate highway system that Eisenhower strongly supported to address the military and commercial needs of a vast nation; though it was not their main purpose, interstate highways offered an ideal escape route for fleeing civilians.¹⁵⁵

Historian Gregg Michael Fehr identifies a final point in evacuation's favor which merits some consideration. He argues that Peterson sold the FCDA's evacuation policy under the banner of American progress in the 1950s. Having emerged victorious from World War II as the bastion of capitalism, the United States experienced a stunning economic and technological transformation in the 1950s. Suburban homeowners marveled at modern conveniences, such as dishwashers, and purchased shiny new cars that promised a greater freedom than many had hitherto experienced. As Americans reveled in their economic success and technological achievements, Fehr believes "Peterson could use mass evacuation to conjure images of a future era in which Americans were richer, their transportation faster, their cities cleaner, and their lives safer."¹⁵⁶ Evacuation embraced the interstate highways that promised economic growth and served as a gateway to the future. Bert the Turtle, whose slow-moving gait forced him to resignedly duck and cover when the bomb exploded, had been outclassed by the "speed-conscious hare" who raced away from the target zone on interstate highways long before the bombs arrived.¹⁵⁷ With American society on the move, evacuation captured the societal inertia of the 1950s and translated it into civil defense progress. Whether or not evacuation's progressive traits factored into the FCDA's decision is open to debate; however, many civil defense officials nonetheless believed in its low cost, simplicity, and effectiveness, making evacuation an appealing option for civil defense.

¹⁵⁵ Lapp, "An Interview with Governor Val Peterson," 377.

¹⁵⁶ Fehr, "Sheltering Society," 162-3.

¹⁵⁷ *Ibid*, 162-3; 175.

Evacuation became the official policy of the FCDA in January 1954, and Peterson quickly set to work convincing the public and civil defense officials to embrace the new concept.¹⁵⁸ The FCDA sponsored numerous drills over the next few years to prove that evacuation saved lives. Five months after the FCDA's decision, Houston staged an evacuation drill in which civil defense officials removed automobiles from the downtown area in a mere eight minutes.¹⁵⁹ Peterson argued that evacuation was effective in other large cities as well, citing a drill in Mobile, Alabama that evacuated 40,000 people from the downtown area in eighteen minutes. Studies further suggested that the 800,000 residents of Milwaukee, Wisconsin could likewise be protected by an evacuation plan.¹⁶⁰

Operation Alert 1955 offered another demonstration of evacuation's efficacy, particularly in comparison to a shelter-based initiative. The second in a series of nationwide tests of civil defense readiness, Operation Alert 1955 contrasted the impacts of a thermonuclear attack on 1) civilians who received early warning and evacuated before the imaginary bombs fell, and 2) civilians who did not have time to evacuate and could only duck and cover in response.¹⁶¹ Predictably, projected casualties were far greater for populations that remained where they were versus those who evacuated. As Fehr notes, "The message was clear, greater warning time and mass evacuations saved lives. Those people who remained in a target area would die."¹⁶² To further demonstrate evacuation's benefits and practicality, Operation Alert 1955 evacuated 15,000 government employees from Washington, D.C., including President Eisenhower himself, who later gave a nationally televised address from one of the evacuation sites to assure the American people

¹⁵⁸ Fehr, "Sheltering Society," 167; Lapp, "An Interview with Governor Val Peterson," 375.

¹⁵⁹ Fehr, "Sheltering Society," 136.

¹⁶⁰ Lapp, "An Interview with Governor Val Peterson," 376.

¹⁶¹ Fehr, "Sheltering Society," 172-3.

¹⁶² *Ibid.*, 173.

that its government could survive an enemy attack.¹⁶³ The FCDA used the results of Operation Alert 1955 to argue that evacuation was a practical and effective civil defense option that could save the nation, while sheltering in place could not be counted on in a nuclear emergency.

At this point, it is worthwhile to consider how the FCDA's evacuation policy reinforced the existing distribution of civil defense responsibility among federal and local authorities. Before the Mike test, the federal government had limited its civil defense efforts to researching possible solutions, advising state and local officials on best practices, and educating the public through brochures and films. While these measures certainly held value, the true weight of responsibility rested upon local communities, such as Fargo's civil defense committee and citizen volunteers, who converted these ideas into actual practices. The FCDA provided information and suggestions, but it was local leaders who recruited local citizens to use local resources to protect their communities. Local workers would conduct rescue and recovery operations to treat the injured and salvage what they could of their pre-attack lives. Under local direction, local resources would rebuild their communities and ultimately the nation itself. This was a self-help model of civil defense, and the FCDA wanted to keep it that way under evacuation policies.

By embracing Peterson's evacuation plan, the FCDA merely updated this division of responsibility for the thermonuclear age. Federal duties remained largely unchanged: the FCDA would tell Americans about the hydrogen bomb's threat, advise local civil defense officials on how evacuation should proceed, and research ways to improve evacuation methods.¹⁶⁴ It was up to local authorities to implement the policy using whatever local resources were available to them. Citizens were expected to build private shelters in their

¹⁶³ Ibid.

¹⁶⁴ Kerr, *Bandaid for a Holocaust?*, 64.

homes (in case they lacked sufficient time to evacuate) and use their own vehicles to ensure their survival.¹⁶⁵ The FCDA even released a pamphlet entitled *4 Wheels to Survival: Your Car and Civil Defense* to prepare citizens to carry the mantle of civil defense responsibility.¹⁶⁶ By “Keep[ing] your car in the best possible mechanical condition” and having “an adequate supply [of food] on hand to make your family self-sufficient,” readers could flee targeted areas and save themselves from an enemy attack.¹⁶⁷ Notice that citizens needed to make these preparations and spring into action when an emergency arose – the FCDA offered no assistance other than the advice in the pamphlet. Certainly, no one wants the government to maintain and operate their personal vehicles; however, *4 Wheels to Survival* made citizens responsible for their own protection and largely removed the federal government from the equation. The FCDA’s civil defense measures changed under Peterson’s leadership, but the primary responsibility for civil defense remained upon citizens’ shoulders, just as they had before the development of the hydrogen bomb. However, an invisible threat soon descended upon the nation and called evacuation and its division of civil defense duties into question.

The Bravo Test Reveals the Fallout Threat

On March 1, 1954, the AEC detonated the Bravo thermonuclear device, which yielded 15 megatons worth of energy, or about 1,000 times more explosive power than Little Boy at Hiroshima.¹⁶⁸ At the time, it was the largest bomb tested by the United States and surprised many scientists by producing two and a half times more energy than anticipated. It further surprised both scientists and military officials alike by spreading a cloud of

¹⁶⁵ Fehr, “Sheltering Society,” 176, 179.

¹⁶⁶ Ibid, 168-169.

¹⁶⁷ Federal Civil Defense Administration, *4 Wheels to Survival: Your Car and Civil Defense*. (Washington, D.C.: U.S. Government Printing Office, 1955).

¹⁶⁸ Fehr, “Sheltering Society,” 204.

radioactive fallout far beyond the range of its heat and blast effects, forever changing the way strategists thought about nuclear warfare.

Fallout is a byproduct of nuclear detonations occurring near the Earth's surface. The bomb's blast pulverizes the ground directly beneath the explosion. As the atomic fireball rises skyward, much of this debris is caught up by air rushing toward ground zero and carried into the atmosphere – this movement creates the iconic mushroom cloud associated with nuclear explosions. During this process, the debris is pummeled by radioactive fission products, some of which become lodged within the debris. These radioactive particles continue rising into the stratosphere, where high-altitude winds can carry the particles for hundreds of miles before they fall back to the Earth in the form of fallout. Scientists had never gathered significant information regarding the spread and intensity of fallout, but the Bravo test forced them to measure this nuclear hazard.¹⁶⁹

The Bravo test exposed some 236 Marshall Islanders and 28 AEC and military personnel to fallout when the winds unexpectedly shifted. The Americans did not receive significant exposure, but many Marshall Islanders received 175 roentgens from the fallout, a severe radiation exposure amounting to about one-third of a lethal dose according to the AEC.¹⁷⁰ This proved sufficient to cause “illness, surface burns, and hair loss” among the victims.¹⁷¹ Sailors aboard the *Lucky Dragon*, a Japanese fishing vessel located 90 miles from the Bravo explosion when fallout particles rained down upon them, were less

¹⁶⁹ Kerr, *Bandaids for a Holocaust?*, 68; Donald Monson, “Is Dispersal Obsolete,” *Bulletin of the Atomic Scientists* 10, no. 10 (1954): 379; Ralph E. Lapp, “Radioactive Fallout,” *Bulletin of the Atomic Scientists* 11, no. 2 (1955): 45.

¹⁷⁰ Bulletin of the Atomic Scientists, “Candor in Congress,” *Bulletin of the Atomic Scientists* 11, no. 5 (1955): 181-2; Kerr, *Bandaids for a Holocaust?*, 69, 73. The AEC estimated that 450-500 roentgens would cause mortality in fifty percent of victims. In the first 36 hours after the Bravo explosion, the Roongelap Atoll, located 100 miles away, received upwards of 2,300 roentgens from fallout.

¹⁷¹ Fehr, “Sheltering Society,” 204.

fortunate.¹⁷² Radiation exposure caused headaches, nausea, hair loss, skin burns, vomiting, and diarrhea among crewmembers, one of whom later died in Japan as a result of Bravo's fallout. Ralph Lapp, a nuclear radiation scientist writing for the *Bulletin of the Atomic Scientists*, later argued that the entire *Lucky Dragon* crew would have perished if they had endured any more radiation exposure.¹⁷³ Once they returned to port, the *Lucky Dragon's* tale garnered global media attention and raised concerns about the safety of nuclear tests.

The *Lucky Dragon* incident angered Japanese citizens but it also contributed to a reassessment of civil defense measures as Bravo's full impact came to light. The explosion spread radioactive fallout over a cigar-shaped area approximately 200 miles in length and 40 miles across, contaminating around 7,000 square miles of the Earth's surface.¹⁷⁴ This result "stunned civil defense planners" and scientists alike, as it greatly magnified the threat from a single bomb.¹⁷⁵ Since its inception, the FCDA had always planned for localized blast, heat, and immediate radiation damage from an enemy attack – even a Mike-sized bomb, which had forced the adoption of evacuation measures, only caused blast and heat damage within 15 miles of its epicenter. However, fallout now imperiled citizens located dozens or hundreds of miles away from the explosion, who could die moments after initial exposure. Lapp estimated that fallout could kill people in a 250 square mile area in as little as twelve minutes; people located across a 4,000 square mile area could receive a "serious to lethal dose in the first day."¹⁷⁶ Lapp described fallout, and the hydrogen bomb that greatly intensified its creation, as a "quantum leap" in warfare that civil defense planners simply were not prepared to counter.¹⁷⁷

¹⁷² Ibid, 204-5.

¹⁷³ Simpson, "A Long Hard Look," 344.

¹⁷⁴ Fehr, "Sheltering Society," 204.

¹⁷⁵ Lapp, "Civil Defense Faces New Peril," 349.

¹⁷⁶ Ibid, 350.

¹⁷⁷ Lapp, "Radioactive Fallout," 45.

The FCDA's days of planning for localized disasters, with surrounding communities facilitating rescue and recovery operations, appeared to be over. Officials realized that hydrogen bombs threatened both urban and rural inhabitants alike.¹⁷⁸ A single "superbomb" could "contaminate a state the size of Maryland with lethal radioactivity," and 28 "superbombs" could threaten over 50 million Americans and cripple most of the nation's industrial capacity.¹⁷⁹ Previous civil defense planning addressed the loss of cities, but now officials had to plan for the eradication of entire swathes of the nation. If cleverly targeted, a hydrogen bomb's fallout might also render entire metropolitan areas uninhabitable despite causing no physical damage to them.¹⁸⁰ Lapp mused that fallout "may kill civil defense in this country" and wrote that the FCDA, having realized the enormous challenge of protecting civilians against fallout radiation, "must feel that it has been admitted to the Anteroom to Hell."¹⁸¹

The FCDA Struggles to Counter Fallout

The FCDA's response to the Bravo findings must have shocked Lapp, for there was little reaction from Peterson's organization. The FCDA resisted any meaningful changes in response to the Bravo test and instead promoted the evacuation policy it had enacted after the Mike detonation. One month after the Bravo test and the resulting *Lucky Dragon* controversy, the FCDA released a video entitled *Operation Ivy* to dispel public concerns over the safety of nuclear testing.¹⁸² The film almost bragged about Mike's immense

¹⁷⁸ Bulletin of the Atomic Scientists, "Candor in Congress," 184; Maloney, *Emergency War Plan*, 111.

¹⁷⁹ Lapp, "Radioactive Fallout," 45, 50.

¹⁸⁰ Ibid, 50.

¹⁸¹ Lapp, "Civil Defense Faces New Peril," 350; Lapp, "Radioactive Fallout," 51.

¹⁸² Fehr, "Sheltering Society," 208; Guy Oakes, *The Imaginary War* (New York: Oxford University Press, 1995), 58-59. It is difficult to imagine how images of downtown Manhattan and Washington, D.C. being engulfed in nuclear fireball would achieve such an effect, but everyone makes mistakes.

explosive power and explained it in simple terms: Mike's energy was four times greater than "all the high explosives dropped by the entire Anglo-American air force on Germany and the occupied countries during the last world war"; filmmakers also imposed a skyline of downtown Manhattan on top of Mike's three-mile fireball and showed the blast radii from a similar bomb over Washington D.C.¹⁸³ Despite going into great detail to explain the primary effects of the hydrogen bomb (perhaps too much detail), *Operation Ivy* remained silent on the topic of radioactive fallout. One may correctly explain this silence by noting that 1) scientists failed to measure Mike's fallout production, and 2) many details of the Bravo test, including the extent of its fallout production, remained classified and therefore could not be revealed to the American public. However, thanks to coverage of the *Lucky Dragon* controversy, both government officials and the American public already knew that fallout was a byproduct of nuclear bombs. Thus, *Operation Ivy* gave an incomplete depiction of the hydrogen bomb and its threat, and Peterson must have known this before releasing the film to the public. He could have added new information to *Operation Ivy* or waited until the FCDA had all the facts regarding the Bravo test. Why then did the FCDA release *Operation Ivy* in Bravo's aftermath, even when Eisenhower had previously ordered that it be kept secret from the American public?¹⁸⁴

The most plausible reason lies in the film's portrayal of the hydrogen bomb as a conventional explosive device, devoid of significant radioactive attributes, and therefore a familiar threat that could be overcome by standard civil defense measures, including evacuation. *Operation Ivy* failed to mention anything about Mike's radiation or fallout

¹⁸³ Department of Defense, *Operation Ivy* (1952; Hollywood, CA: Lookout Mountain Laboratory, 1953), Film.

¹⁸⁴ David Ropeik, "How the Unlucky Lucky Dragon Birthed an Era of Nuclear Fear," *The Bulletin*. *Bulletin of the Atomic Scientists*, February 28, 2018. <https://thebulletin.org/2018/02/how-the-unlucky-lucky-dragon-birtherd-an-era-of-nuclear-fear/>

effects, focusing instead on its blast and heat damage. Fallout might sicken people many miles away, but they could recover, as most of the *Lucky Dragon* crewmembers eventually did. A three-mile fireball, on the other hand, did not offer such rosy prospects of survival. In Peterson's view, the hydrogen bomb's blast and heat effects posed a far greater threat to American communities than fallout, and while he eventually acknowledged that additional measures were needed to combat fallout, he remained convinced that this was a secondary concern. After all, Americans needed to survive the bomb's detonation before they confronted fallout, and evacuation was very useful in this regard. Perhaps Peterson believed that *Operation Ivy* viewers, having witnessed the hydrogen bomb's ability to devastate entire cities, would take the threat seriously and involve themselves in civil defense by learning evacuation routes and preparing their vehicles for an urban exodus. Under this interpretation, the FCDA thought it was better to focus on the most pressing threats (nuclear blast and heat) and their solution (evacuation) rather than the less significant fallout threat, and released *Operation Ivy* to buttress support for the FCDA's current policies.

Peterson and the FCDA continued to promote evacuation and other common civil defense doctrines in two publications released in 1955. *Facts About the H-Bomb* replicated *Operation Ivy*'s fact-based depiction of the hydrogen bomb's threat (and borrowed images from the film) but insisted that this did not radically alter the nature of nuclear war or its threat to the nation.¹⁸⁵ While it acknowledges that hydrogen bombs could cause as much destruction as 1,000 World War II-era bombers and that "many [Americans] wondered how people in any large city could survive" the bomb from *Operation Ivy*, the brochure instead

¹⁸⁵ Fehr, "Sheltering Society," 214; Federal Civil Defense Administration, *Facts About the H-Bomb*. (Washington, D.C.: U.S. Government Printing Office, 1955), 2. The brochure includes the iconic image of Manhattan superimposed over Mike's fireball, the destruction of Eleugelab, and the resulting mushroom cloud.

emphasized the “practical limits” of hydrogen bombs.¹⁸⁶ Though they were 1,000 times more powerful than Little Boy at Hiroshima, hydrogen bombs would only damage an area 100 times larger than that. The booklet reminded readers that if enemy bombs fell, “There [would] always be much more of America undamaged, and many more millions of our people alive...than there will be death and destruction.”¹⁸⁷ The H-bomb “makes the civil defense problem larger, not different.”¹⁸⁸

To protect their families, *Facts About the H-Bomb* recommended measures like those discussed in the previous chapter. Citizens could protect themselves through active participation in civil defense drills, training in first aid and firefighting techniques, and by cooperating with civil defense officials. The brochure included two minor changes from its earlier cousins. First, it placed a greater emphasis on evacuation, or ‘dispersal’, than earlier publications, and claimed evacuation was “still your best chance of staying alive” for Americans located within the bomb’s blast range.¹⁸⁹ This additional focus likely resulted from Peterson’s insistence that evacuation remain the cornerstone of FCDA policies. The second change is the inclusion of two fallout references: one reported that “radioactive particles” can affect the outermost ‘D-ring’ of damage, while the other suggested that people living in this area should have a household shelter for protection against both blast and fallout.¹⁹⁰ The brochure made no attempt to explain what fallout is, how far it can spread, or how it affects humans. This unwillingness to offer further details suggests that the

¹⁸⁶ Federal Civil Defense Administration, *Facts about the H-Bomb*, 2.

¹⁸⁷ *Ibid*, 105.

¹⁸⁸ *Ibid*.

¹⁸⁹ *Ibid*, 106. The term ‘dispersal’ should not be confused with efforts to permanently decentralize the nation’s industrial capacity and population, as *Facts about the H-Bomb* is clearly describing the dispersal of an urban population in response to a specific enemy attack.

¹⁹⁰ *Ibid*.

FCDA viewed fallout as insignificant and preferred to focus attention on the bomb effects that could be addressed via evacuation procedures.

Pressure to release more information about the fallout threat must have mounted because the FCDA released another brochure in 1955 entitled *Facts about Fallout*. Its inclusion of an explanation of fallout's origin and how it spread was already more information about fallout than was included in *Operation Ivy* or *Facts About the H-Bomb*. However, *Facts about Fallout* fell short of describing where fallout could fall or offering advice on what to do about it, despite this information being available via the *Bulletin of the Atomic Scientists* and the AEC in early 1955. The document encouraged readers to prepare by tuning into the Conelrad stations, stockpiling supplies, seeking shelter in their basements or an underground shelter, and evacuating if time allowed. Again, note that none of these recommendations were markedly different from previous civil defense measures, but readers were told that following FCDA guidelines would save lives.¹⁹¹ *Facts about Fallout* concluded with the promise that “this [fallout] problem can be solved – as others have been – by American ingenuity and careful preparation.”¹⁹² This is a rather ironic statement since the FCDA withheld key information – where fallout was likely to spread, how to mitigate its effects, what ailments to expect, and so on – that could safeguard Americans against the new threat unleashed by thermonuclear weapons.¹⁹³ Instead, the FCDA minimized the hazard and made citizens responsible for their own protection by offering familiar self-help tips, including the suggestion that evacuation was the best protective option for many American families.

¹⁹¹ Fehr, “Sheltering Society,” 216.

¹⁹² Federal Civil Defense Administration, *Facts about Fallout*. (Washington, D.C.: U.S. Government Printing Office, 1955).

¹⁹³ Of course, atomic bombs can create fallout as well. However, Little Boy and Fat Man were air bursts and therefore created no significant fallout. Scientists and military personnel gave little to no thought to the fallout threat until more powerful thermonuclear weapons were tested.

Not everyone agreed with Peterson's belief that current civil defense planning adequately addressed the fallout issue. Prior to congressional hearings, the most vocal critic of FCDA policies was Ralph Lapp, who frequently published his findings on the hydrogen bomb and fallout in the *Bulletin of the Atomic Scientists*. Lapp argued that fallout did not render evacuation obsolete, claiming it would be "utterly disastrous if [the FCDA] abandoned its policy of evacuation at this time."¹⁹⁴ However, he feared evacuation was incapable of protecting the nation on its own and wanted the FCDA to incorporate other protective measures into its disaster planning.¹⁹⁵ For example, fallout shelters might be created along the evacuation route or in the countryside where rural inhabitants and evacuees alike could seek refuge if a radioactive cloud moved in their direction.¹⁹⁶ Unfortunately, the FCDA seemed content to retain its procedures and recommendations, which was unacceptable to Lapp. If these plans remained unchanged, he feared urban populations might be "jumping from the frying pan into the fire" by exposing themselves to radioactive fallout once they evacuated the cities.¹⁹⁷

Furthermore, Lapp grew concerned as the AEC kept much of its findings on fallout secret in the year after the Bravo explosion, thereby depriving American communities of the information they needed to make wise decisions concerning how they would respond to an enemy attack. Peterson's organization proved no better because, as demonstrated above, the FCDA likewise delayed the release of accurate fallout facts and tips for protecting Americans from this invisible threat. Aside from leaving Americans vulnerable to disaster,

¹⁹⁴ Lapp, "Civil Defense Faces New Peril," 351.

¹⁹⁵ Lapp, "Civil Defense Faces New Peril," 351; Lapp, "Radioactive Fallout," 51.

¹⁹⁶ Fallout shelters protect occupants by building barriers between them and radioactive particles and are like blast shelters in this regard. They differ in how long occupants can expect to reside within them – one can leave a blast shelter shortly after the attack ends, whereas they must remain inside a fallout shelter until radiation levels return to a safe level, which can take weeks or months.

¹⁹⁷ Lapp, "Civil Defense Faces New Peril," 351.

Lapp was concerned about a growing sensation of “nuclear fear” and “impending doom” among the nation’s population as they grappled with the reality of thermonuclear warfare.¹⁹⁸ In his view, the nation needed “a thorough house-cleaning in the civil defense establishment” to determine which recommendations were “hopeless or useless” in a thermonuclear confrontation.¹⁹⁹ Was firefighting training valuable if fallout prevented responders from reaching the affected area? Was evacuation “a valid program or has fallout killed its chances of success?”²⁰⁰ Lapp lacked the authority to hold the AEC accountable for its inaction and force the FCDA to address the fallout threat; however, federal officials soon took both agencies to task.

Congress Investigates Civil Defense: The Kefauver Hearings

The hydrogen bomb’s capacity for destruction and the *Lucky Dragon* controversy persuaded congressional leaders to further examine details about the new weapon, the fallout it produced, and its impact on civil defense planning. Their interest resulted in the Kefauver and Holifield hearings, a pair of multi-month investigations that questioned key tenants about the nation’s security and sparked new discussions about who bore the responsibility for civil defense. The AEC released its study on the Bravo test and the fallout fiasco on February 15, 1955; one week later, the Senate Armed Services Committee (SASC) began the first examination into civil defense since the hydrogen bomb’s advent.²⁰¹ Usually known as the Kefauver hearings, the committee investigated many of the H-bomb’s implications, such as nuclear testing safety, the destructive forces it generated, the division of civil defense responsibility between local communities and the FCDA, and why the AEC

¹⁹⁸ Fehr, “Sheltering Society,” 208.

¹⁹⁹ Lapp, “Radioactive Fallout,” 51.

²⁰⁰ Ibid.

²⁰¹ Kerr, *Bandaid for a Holocaust?*, 67.

waited nearly a year before publishing its findings.²⁰² Over the next four months, the committee realized the full extent of the nation's civil defense deficiencies.

The committee first heard testimony from the AEC, primarily from Dr. Libby, the same expert who described hydrogen bombs as “city pulverizers.”²⁰³ Libby answered questions concerning the hazards of nuclear testing in Nevada, the type of damage that H-bombs might inflict on American cities, the scope and nature of the fallout threat, and the AEC's reluctance to publicly release this information. In their answers before the committee, Libby and other AEC officials focused on the minimum effects of atomic testing and hydrogen bombs rather than revealing the maximum, or even likely, consequences of nuclear explosions.²⁰⁴ Libby defended the AEC's Bravo report, even though the SASC criticized it as “misleading” and offering “practically no attention” to fallout, especially for effects lasting longer than 36 hours.²⁰⁵ In fact, the AEC report mimicked recent FCDA publications by focusing on the blast and heat effects while saying very little about fallout, ingested radioactive particles, or radiation's long-term genetic effects. Furthermore, Libby proved reluctant or unwilling to answer many of the committee's questions based on national security concerns or the complexity of the issues, such as how fallout would affect the evacuation of American cities.²⁰⁶ The committee eventually received answers to some

²⁰² Bulletin of the Atomic Scientists, “Candor in Congress,” 181; Kerr, *Bandaid for a Holocaust?*, 72-73.

²⁰³ Simpson, “A Long Hard Look,” 344.

²⁰⁴ Kerr, *Bandaid for a Holocaust?*, 73, 76.

²⁰⁵ Simpson, “A Long Hard Look,” 344; Ralph E. Lapp, “Fall-out and Candor,” *Bulletin of the Atomic Scientists* 11, no. 5 (1955): 170.

²⁰⁶ Bulletin of the Atomic Scientists, “Candor in Congress,” 181-2; Kerr, *Bandaid for a Holocaust?*, 73. In his analysis of the Kefauver hearings, Kerr argues that the AEC's unhelpful answers resulted from the agency's political needs in the mid-1950s. They tried to balance two conflicting goals: the need to come clean before the Senate regarding fallout while also retaining permission to conduct future tests with hydrogen bombs. In Kerr's words, “The problem facing the AEC was how to inform the public of a very serious menace while managing to cause as little alarm as possible.”

questions regarding the fallout problem, but they worried that the AEC's handling of the situation had disrupted the FCDA's preparations for a nuclear attack.

Unfortunately, the SASC soon learned that the FCDA did not need AEC assistance to produce disappointing results. In the twelve months following the Bravo test, the FCDA made few changes to its recommendations and planning for civil defense. The agency continued to promote evacuation but accepted fallout shelters as a plausible option to protect evacuees outside of the target areas, a policy that was later described as "evacuation to shelter."²⁰⁷ However, Peterson's ideas for implementing this plan failed to inspire confidence among the committee members. One plan involved digging trenches along the evacuation routes, complete with wood or tar paper coverings to protect the occupants – "A person standing in one of these trenches could flap the [tar paper] every 20 to 30 minutes and shake that [fallout] on the ground, and that would offer a considerable amount of protection."²⁰⁸ Occupants might spend hours or days beneath such cover to survive the fallout, depending on the nature of the threat. Peterson described several other options, such as replacing the trench with concrete piping or traditional fallout shelters, but he presented these as possibilities rather than policy recommendations. In truth, the FCDA was doing very little to incorporate fallout protection into their emergency planning because it remained adamant that evacuation was the best plan.

Even if evacuation were accepted as an effective policy, the committee found the FCDA's implementation quite lacking. Numerous witnesses testified that some major cities did not have acceptable plans for evacuating their inhabitants in an emergency and the plans that did exist often "took no account of the fall-out danger."²⁰⁹ The hearings also cast

²⁰⁷ Kerr, *Bandaid for a Holocaust?*, 77.

²⁰⁸ *Ibid.*, 77.

²⁰⁹ Kerr, *Bandaid for a Holocaust?*, 79; Simpson, "A Long Hard Look," 345.

doubt on the low cost of evacuation, which was a major reason why the FCDA had selected it in the first place. One witness claimed that St. Louis required \$150 million in infrastructure improvements to make a rapid evacuation possible; another testified that urban areas in Massachusetts needed \$650 million in road improvements before evacuation became a feasible option.²¹⁰ The FCDA lacked the necessary funds to cover these expenses. In addition to limitations in planning and funding, the FCDA had made little progress in developing efficient ways to evacuate a metropolitan area in a timely manner. Key questions remained, including how to communicate instructions to civilians, how to handle vehicle breakdowns, and how to maintain order in the rush to flee the city. The SASC realized that in the three years since the Mike bomb destroyed the nation's initial program of civil defense, the FCDA had yet to implement a suitable replacement. The Kefauver hearings exposed this inadequacy, but little change resulted from their inquiry. The only partial victory, aside from further clarity on the fallout threat, was Eisenhower's request to Congress for \$12.5 million so the FCDA could study the fallout risk.²¹¹ In the committee's opinion, this was not enough, and committee member Senator Henry Jackson (D-WA) called for action: "it is about time that we have a definite plan ready... we should be able to come up with a specific long-term proposal to find means of getting people out of cities and a place to house them."²¹²

Congress Investigates Civil Defense: The Holifield Hearings

The Kefauver hearings made little impact on the nation's civil defense readiness, but its findings were closely watched by Representative Chet Holifield (D-CA), who had an avid interest in protecting the nation against nuclear attack. Regarded as a "true believer in the

²¹⁰ Kerr, *Bandaid for a Holocaust?*, 79.

²¹¹ Lapp, "Fallout and Candor," 170.

²¹² Bulletin of the Atomic Scientists, "Candor in Congress," 184.

power of civilian defense to save lives during a nuclear war,” Holifield grew frustrated by the unwillingness of the FCDA and other civil defense organizations to formulate a decisive response to the hydrogen bomb.²¹³ He viewed fallout shelters, not evacuation, as the key to survival and held zero confidence in Peterson’s leadership at the FCDA. Convinced that change was desperately needed, Holifield introduced House Joint Resolution 98 in January 1956, which proposed making the FCDA a cabinet-level executive department.²¹⁴ Eager to generate support for his proposal, he used his authority as chairman of the Military Operations Subcommittee of the House Committee on Government Operations to launch a wide-ranging investigation into the FCDA’s inaction and Peterson’s lack of leadership.²¹⁵

Throughout 1956, Holifield’s subcommittee interviewed hundreds of scientists, medical experts, engineers, and government officials to gauge the status of civil defense readiness; in addition, Holifield sought an opportunity to “undermine the credibility of the evacuation approach” and advocate for a national fallout shelter system.²¹⁶ The subcommittee chastised the AEC for delaying the release of its research into the Bravo test and radioactive fallout.²¹⁷ Furthermore, the AEC’s limited attention to fallout and its longevity left many Americans unaware of the danger it posed and offered false hope about their odds of survival in a nuclear exchange. The FCDA also drew the ire of the subcommittee, owing in large part to its support for evacuation. Holifield believed, with some justification, that the FCDA’s research into alternative civil defense measures was less than genuine and that the agency remained committed to evacuation.²¹⁸ For example,

²¹³ Fehr, “Sheltering Society,” 219-220.

²¹⁴ *Ibid.*, 219.

²¹⁵ United States Department of Homeland Security, *Civil Defense...Homeland*, 9; Kerr, *Bandaid for a Holocaust?*, 67-68.

²¹⁶ Simpson, “A Long Hard Look,” 343; Kerr, *Bandaid for a Holocaust?*, 68.

²¹⁷ Simpson, “A Long Hard Look,” 344.

²¹⁸ Kerr, *Bandaid for a Holocaust?*, 84, 86.

Peterson had yet to seek congressional funding for the shelter program favored by Holifield. In his defense, Peterson argued that more information was needed before presenting such a plan to Congress and pointed to 25 ongoing ‘survival plan’ studies that were assessing whether evacuation could work and whether shelters were needed. Holifield and the subcommittee were completely skeptical of the ‘survival plans’ and viewed them as a “boondoggle” whose only value lay in supporting Peterson’s evacuation policy.²¹⁹

While the FCDA clung to evacuation during the Holifield hearings, evacuation was already falling out of favor among many scientists and civil defense experts for several reasons. The evacuation of many major cities required at least four hours in optimal conditions, but even Peterson had to admit that the military could not guarantee sufficient warning time for this to occur; this problem would only intensify if the Soviets deployed new intercontinental ballistic missiles (ICBMs) that could strike American targets within one hour.²²⁰ Traffic congestion and vehicle breakdowns posed another challenge that the FCDA could not solve, and Holifield’s personal experience with Los Angeles convinced him that the existing infrastructure was insufficient to accommodate a timely exodus. Evacuation might also prove useless if the enemy used a great number of warheads to strike American targets, as seemed likely in a nuclear exchange, since civil defense officials might be unable to locate safe zones for evacuees amidst multiple mushroom clouds, to say nothing about the fallout that might irradiate the target areas and safe zones alike.

In place of the problematic evacuation option, many witnesses (and Holifield himself) favored fallout shelters as a suitable response to the hydrogen bomb’s arrival. At the time, experts still debated whether shelters should be built to protect occupants from blast and heat effects, radioactive fallout, or both; however, there was a growing consensus

²¹⁹ Simpson, “A Long Hard Look,” 345, 347; Kerr, *Bandaid for a Holocaust?*, 90.

²²⁰ Lapp, “Civil Defense Faces New Peril,” 351; Kerr, *Bandaid for a Holocaust?*, 84-85.

that some combination of the two could make a substantial difference in an enemy attack. During the Holifield hearings, numerous witnesses testified about the effectiveness of shelters and supported their adoption by civil defense agencies. Dr. Merle Tuve, a leading researcher at the National Academy of Sciences and director of the Carnegie Institute's Research Laboratory, argued that a civil defense effort centered around shelters might reduce casualties by 80 percent, saving up to 60 million American lives in a nuclear war.²²¹ Experts from the Naval Radiological Laboratory explained how this was possible: "shelter shrinks the damage impact of the weapon, makes the weapon 'look smaller' [and] squeezes a 20-megaton down to a 20 kiloton size."²²² Shelters could shield occupants from a nuclear bomb's blast and heat damage, and while the hydrogen bomb would destroy shelters within 2 miles of the detonation, people sheltered beyond this range could survive the explosion's blast and heat, as well as any fallout that occurred. Cities would be destroyed and remain uninhabitable for some time, but enough people would survive to rebuild the nation. Witnesses disagreed about the expected cost, quantity, and types of shelter needed to ensure survival, but many agreed that blast or fallout shelters were a feasible and necessary aspect of civil defense.²²³

This testimony in favor of fallout shelters was music to Holifield's ears. Long had he seen Peterson's FCDA shy away from this effective civil defense measure, and Holifield used the hearings to advocate for their adoption while excoriating the man he blamed for the nation's lackadaisical and haphazard civil defense.²²⁴ The subcommittee accused Peterson of "regarding shelters as costly nuisances only worthy of consideration if

²²¹ Simpson, "A Long Hard Look," 345-346; Fehr, "Sheltering Society," 221.

²²² Simpson, "A Long Hard Look," 346; Kerr, *Bandaid for a Holocaust?*, 93.

²²³ Kerr, *Bandaid for a Holocaust?*, 90.

²²⁴ Fehr, "Sheltering Society," 220.

evacuation proved impractical.”²²⁵ They cited civil defense officials from Washington, D.C., Milwaukee, and St. Louis who revealed that their civil defense plans, under the FCDA’s guidance, omitted any mention of blast or fallout shelters.²²⁶ Peterson defended his actions by claiming that more research into shelter design was needed before they could be incorporated into civil defense planning; however, the FCDA’s engineering director, Benjamin C. Taylor, contradicted Peterson’s views. Taylor testified that the current research was sufficient to begin a shelter construction program, while Peterson preferred to wait for the conclusion of the ‘survival plan’ studies. Taylor also argued that existing structures, such as subways, could be reinforced to become “excellent shelters,” whereas Peterson viewed such urban shelters as little more than death traps.²²⁷ Having already decided that the nation needed shelters, it is unsurprising that the subcommittee favored the testimony of Taylor and others who presented shelters in a positive light.

Holifield and the subcommittee had already decided that shelters were a vital component of civil defense, regardless of their findings. In their official report, the subcommittee criticized Peterson and the FCDA, bluntly stating that “civil defense to date has been a waste of public funds.”²²⁸ In their view, the FCDA did not understand the technical issues involved in civil defense planning and failed to lead the nation toward civil defense readiness.²²⁹ Many witnesses at the hearings agreed that the nation deserved better than the present civil defense program, but two merit mention for their disgust at the performance of Peterson’s FCDA. General Otto Nelson, who led a two-year study of the nation’s vulnerability to atomic attack in the early fifties, believed that the current program

²²⁵ Kerr, *Bandaids for a Holocaust?*, 87; Simpson, “A Long Hard Look,” 347.

²²⁶ Kerr, *Bandaids for a Holocaust?*, 89.

²²⁷ *Ibid.*, 87-88.

²²⁸ Simpson, “A Long Hard Look,” 343.

²²⁹ *Ibid.*, 343, 345.

of civil defense was doing more harm than good. In his view, present efforts were a mere “gesture in the absence of any effective programs or the knowledge of how to undertake them.”²³⁰ Dr. Tuve, who testified in favor of shelters, also insulted Peterson’s leadership, declaring that he had “no conception of what should constitute an acceptable performance” by the FCDA.²³¹ Worse still, many Americans believed civil defense to be a farce, an opinion only reinforced by the release of *Operation Ivy*.

Satisfied in their critique of Peterson and his evacuation policy, Holifield’s subcommittee made several recommendations to remedy the nation’s woefully unprepared civil defense program. The FCDA needed to be reorganized as a cabinet-level Department of Civil Defense, presumably to gain the legitimacy and authority that it currently lacked. The United States needed to undertake a national fallout shelter program immediately, with federal funding to offset the high cost of research, identification, and construction. Officials needed to devise a nationwide plan for civil defense with detailed plans for likely targets, and work with the military to train “active and reserve military personnel in civil defense duties.”²³² Lastly, and perhaps most crucially, Congress needed to revise the Civil Defense Act of 1950 to grant the federal government more responsibility for civil defense in the United States.²³³

This final recommendation best captured Holifield’s purpose in proposing House Joint Resolution 98 and holding hearings before the Military Operations Subcommittee: the federal government needed to take responsibility for civil defense. Its unwillingness to do so was the root cause of the FCDA’s lackluster performance, which came to light during the

²³⁰ Ibid., 345-346.

²³¹ Fehr, “Sheltering Society,” 221; Simpson, “A Long Hard Look,” 345.

²³² Simpson, “A Long Hard Look,” 343.

²³³ Simpson, “A Long Hard Look,” 343; Kerr, *Bandaid for a Holocaust?*, 94; Fehr, “Sheltering Society,” 225.

Kefauver and Holifield hearings. Only the federal government possessed the authority and oversight to create consistent and effective civil defense plans on a nationwide scale. Only the executive branch, through the president's influence and charisma, could offer the leadership necessary to alert Americans to the dangers of fallout and involve them in safety planning. The sizeable sums needed to fund civil defense measures could only come from federal coffers; if the government could spend hundreds of billions of dollars on military equipment and personnel to protect American borders, surely it had the means to protect American communities as well. If the nation were to receive adequate protection, the federal government would need to step up and take ownership of civil defense preparations.

Federal responsibility is precisely what the Holifield subcommittee demanded in its report on the 1956 hearings.²³⁴ Reorganizing the FCDA into a cabinet-level department would give civil defense officials greater legitimacy and funding to initiate a national shelter construction program. With more authority, the proposed Department of Civil Defense could create a "master plan of civil defense for the nation" and offer guidance to specific communities on how to protect themselves in a nuclear emergency.²³⁵ But most importantly, local communities would no longer bear the responsibility for a self-help version of civil defense. Instead, the federal government would spearhead the pursuit of safety by providing both the guidelines for civil defense measures and the means to implement these best practices, thereby safeguarding the nation in the thermonuclear age.

Taken together, the subcommittee believed federal leadership would inject vitality and purpose into civil defense. On one hand, Americans would no longer be dangerously

²³⁴ Simpson, "A Long Hard Look," 343. It is worth noting that three committee members disagreed with the Report's emphasis on federal leadership. They opposed the creation of a Secretary of Civil Defense and believed civil defense was a responsibility best shared by both state and federal governments.

²³⁵ *Ibid.*, 343.

vulnerable to atomic attack, but could rely on a shelter system prepared by civil defense experts who stood ready to help the nation through the apocalypse. On the other hand, the Holifield subcommittee hoped civil defense could become “an integral part of the nation’s ability to deter war,” as her enemies would see that the United States was prepared to do whatever it took to protect itself and promote freedom across the globe.²³⁶ Potential enemies would be reluctant to launch a nuclear attack if civil defense ensured the nation’s survival, allowing the American people to take up the call of freedom anew.

Unfortunately for Holifield and his vision of a new age in civil defense, the hearings failed to generate any significant changes in how the nation prepared for nuclear war.²³⁷ Peterson retained his position as head of the FCDA, which continued to rely on evacuation for the nation’s safety. There was only limited media coverage of the hearings and the American public paid scant attention to their unlikely odds of survival.²³⁸ Undaunted, Holifield pushed forward in his quest for civil defense reform. In January 1957, his allies introduced House Resolution 2125, which proposed the adoption of several of the subcommittee’s recommendations, including a cabinet-level civil defense department, a national shelter program, and federal assumption of civil defense responsibilities.²³⁹ This triggered another round of hearings to discuss the proposal, and the Military Operations Subcommittee used this opportunity to argue that shelters were effective, determine the required number of blast and fallout shelters, and estimate the cost of a nationwide shelter program.²⁴⁰

²³⁶ Ibid., 347-348.

²³⁷ Kerr, *Bandaid for a Holocaust?*, 94.

²³⁸ Simpson, “A Long Hard Look,” 348.

²³⁹ Blanchard, “American Civil Defense,” 5-6; Kerr *Bandaid for a Holocaust?*, 95.

²⁴⁰ Kerr, *Bandaid for a Holocaust?*, 95-96.

The Gaither Report Supports Civil Defense Reform

As the Holifield hearings in support of HR2125 proceeded into spring 1957, Eisenhower established the Security Resources Panel of the Scientific Advisory Committee, better known as the Gaither Committee, to review the nation's readiness for nuclear war.²⁴¹ His decision resulted from the combined pressures of the Kefauver and Holifield hearings, as well as the first successful Soviet hydrogen bomb test in 1955, growing fears that Soviet advances in rocketry would open a dangerous new front in a future conflict, and Eisenhower's shock at the high cost of a half-hearted shelter proposal from the FCDA.²⁴² The president asked the Gaither Committee to analyze the cost effectiveness of blast and fallout shelters, as well as more active protection strategies, including antiballistic missiles, ICBMs, and additional nuclear bombs.²⁴³ The Gaither Committee, consisting of "more than ninety persons of varying specialties and experiences," including scientists, engineers, academics, and military professionals, released its findings after seven months of research and discussion.²⁴⁴

To Eisenhower's dismay, the Gaither Committee concluded that the United States was vulnerable to a Soviet attack, especially if the enemy used low altitude trajectories or electronic countermeasures in the attack profile.²⁴⁵ If the military could not prevent all enemy bombers or missiles from striking American targets, citizens would need to either seek refuge where they were or evacuate urban areas. Unfortunately, the Gaither Report found that the FCDA's current civil defense plans would "afford no significant protection to

²⁴¹ Ibid., 106.

²⁴² Rose, *One Nation Underground*, 29; Kerr, *Bandaid for a Holocaust?*, 105-106. Peterson presented a shelter plan that would cost \$32 billion in late 1956, but he may have cited the high cost as an argument against fallout shelter construction.

²⁴³ Kerr, *Bandaid for a Holocaust?*, 106-107; Security Resources Panel of the Science Advisory Committee, "Deterrence and Survival in the Nuclear Age" (report, Washington, D.C., 1957), 1.

²⁴⁴ Security Resources Panel of the Science Advisory Committee, "Deterrence and Survival," 1.

²⁴⁵ Ibid., 5.

the civil population,” meaning Eisenhower’s favored evacuation policy was an “unacceptable alternative.”²⁴⁶ What then could be done to protect the nation against a Soviet opponent who seemed to grow stronger and more dangerous over time?

The Gaither Report proposed numerous actions to improve the nation’s survivability in nuclear war. The committee placed the greatest emphasis on investments in military technology, such as building more nuclear-capable bombers for the Strategic Air Command (SAC), accelerated research into offensive ballistic missiles, the development of defensive antiballistic missiles, and better air defenses around SAC airbases.²⁴⁷ However, they also noted that these measures were “insufficient unless [they were] coupled with measures to reduce the extreme vulnerability of our people and our cities,” and therefore recommended a national fallout shelter program as the only “feasible protection for millions of people...exposed to the hazards of radiation.”²⁴⁸ Fallout shelters formed the backbone of the Gaither Report’s civil defense recommendation for several reasons. While fallout shelters were certainly expensive (the Gaither Report placed the cost of a nationwide program at \$25 billion), the committee argued that they saved more lives, dollar for dollar, than any other measure taken into consideration – somewhere around 40 to 70 million lives in a nuclear exchange.²⁴⁹ Furthermore, fallout shelters could be used for any enemy nuclear attack, whether by relatively slow-moving bombers or faster ICBMs, and did not rely on early warning for occupants to seek shelter. Fallout shelters also contributed to a credible nuclear deterrent because they reduced the damaging effects of enemy attacks and strengthened the idea that the United States would use nuclear weapons in retaliatory

²⁴⁶ Ibid., 5, 18.

²⁴⁷ Blanchard, “American Civil Defense,” 6; Kerr, *Bandaids for a Holocaust?*, 107.

²⁴⁸ Security Resources Panel of the Science Advisory Committee, “Deterrence and Survival,” 7-8.

²⁴⁹ Ibid., 8, 20. An additional benefit was that fallout shelters allowed American air defense units to use nuclear warheads to destroy incoming missiles.

strikes.²⁵⁰ Despite their distress at the current state of civil defense, the Gaither Committee expressed optimism for a future where “sheltered survivors could pull through [a nuclear attack] and remake a way of life in our own country” if the federal government led the way in planning, organization, and training in civil defense measures.²⁵¹

At this point it is worth noting that while the Gaither Committee supported fallout shelter construction, its members rejected blast shelters as a worthwhile investment. Blast shelters were far more difficult (and expensive) to construct than fallout shelters, especially in the urban areas that would derive the most benefit from them. Since civilians might lack sufficient time to seek safety before enemy bombs fell, proper placement was crucial in making blast shelters a viable option; however, the committee feared it would be difficult to identify and secure access to these locations. Lastly, the public had to be well-trained in moving to and entering these shelters in a timely manner, but civilians often failed to participate in the large-scale drills necessary to make this feasible. For these reasons, the Gaither Report supported fallout shelters at the expense of blast shelters.

The Gaither Committee joined a growing consensus in the late 1950s centered on the idea that shelters, particularly those built to protect against fallout radiation, held the key to civil defense readiness.²⁵² The views of Holifield’s Military Operations Subcommittee have already been explored, but additional support came from private research organizations as well. For example, a 1958 report by the Rockefeller Fund expressed support for fallout shelters and believed further research could reveal value for blast shelters.²⁵³ The RAND Corporation also published a civil defense study in 1958 that

²⁵⁰ Ibid., 22.

²⁵¹ Ibid., 21.

²⁵² Ibid., 8, 20.

²⁵³ Kerr, *Bandaid for a Holocaust?*, 110.

supported a robust civil defense and provided details on a variety of shelter options.²⁵⁴ It argued that a strong civil defense augmented the United States' deterrence because the "civilian population would no longer be an open hostage" exposed to an enemy's nuclear arsenal.²⁵⁵ Even the FCDA entertained the use of shelters for civil defense, as Peterson proposed a \$32 billion shelter system to offer blast protection in urban areas and fallout protection for the rest of the nation in December 1956.²⁵⁶

Despite the growing body of evidence emerging in favor of a national shelter program, not everyone was convinced. Most significantly, Eisenhower remained skeptical about the wisdom of committing to such an initiative. Investing billions of taxpayer dollars into a shelter program conflicted with his primary goal of balancing national defense with economic growth.²⁵⁷ A thriving civil defense could also raise tensions between the United States and the Soviet Union, since the Kremlin might interpret it as a preparatory step toward conflict. This was unacceptable because Eisenhower wanted to lower Cold War tensions to maintain peace, not imperil the nation's well-being by involving it in a shooting war.²⁵⁸ He also suspected that lawmakers in Congress would not stomach a \$20-30 billion investment in glorified foxholes, as many already perceived civil defense to be worthless.²⁵⁹ Senator Stephen M. Young (D-OH) went so far as to call the FCDA an "utterly useless organization with many thousands of men and women feeding at the public trough but rendering no useful service."²⁶⁰

²⁵⁴ Ibid., 111

²⁵⁵ Ibid., 111.

²⁵⁶ Ibid., 105-106.

²⁵⁷ Ibid., 108.

²⁵⁸ Blanchard, "American Civil Defense," 6.

²⁵⁹ Kerr, *Bandaid for a Holocaust?*, 109-110.

²⁶⁰ Ibid., 114.

Others disagreed with a shelter system due to geopolitical and military reasons. Foremost among the former was Secretary of State John Foster Dulles, who feared that further investment in civil defense would reduce the nation's ability to wage the Cold War. Dulles argued that European allies might question the United States' commitment to them if Americans found relative safety in their shelters while leaving European citizens vulnerable to nuclear annihilation.²⁶¹ Would the United States be too willing to use nuclear weapons once its own citizens were protected, and if so, how would that safeguard Europe? He also worried that Americans would lose faith in the nation's deterrence capabilities if they became comfortable with a defensive 'Fortress America' mindset. In his view, strengthening the nation's nuclear deterrence yielded more protection than shelters.²⁶² Lastly, if the Cold War were a competition between economic systems, he argued that American capitalism would suffer if the nation diverted too much money toward unproductive civil defense shelters.

The military echoed Dulles' concerns regarding these civil defense proposals for several reasons. Foremost among these was that civil defense threatened military funding; both the armed forces and the FCDA shared a similar mission in protecting American citizens, and each dollar spent on shelters meant one less dollar available for military purposes, such as nuclear deterrence or conventional weapons. In a climate where Eisenhower insisted on balanced budgets, it is probable that military budgets would incur cuts if Congress awarded additional funding to the FCDA. Aside from monetary concerns, many in the military doubted whether civil defense offered much protection to the American people. SAC General Curtis LeMay, who orchestrated the aerial demolition of dozens of Japanese cities during World War Two, was adamant that the best protection lay

²⁶¹ Ibid., 108-109.

²⁶² United States Department of Homeland Security, *Civil Defense...Homeland*, 11.

in more bombers and nuclear bombs, not “holes in the ground to crawl into.”²⁶³ In his view, massive retaliation and new military technology was a better deterrent than a defensive-minded Maginot Line of civil defense shelters that provided a false sense of security.²⁶⁴ The military presented these concerns to Eisenhower, who made the final decision on whether the federal government would bear additional responsibility for the nation’s civil defense.

Eisenhower’s ‘New’ Civil Defense

Eisenhower shared concerns over increased civil defense spending but could not ignore mounting demands to do more to protect American citizens from enemy attack, especially as the Soviet Union made impressive strides toward a first-strike capability (the Soviet Union tested its first Intercontinental Ballistic Missile, or ICBM, in August 1957 and launched Sputnik into orbit two months later).²⁶⁵ Finally forced to take action, Eisenhower pursued a set of compromise policies that were more façade than substance. First, he replaced Peterson, who became the United States ambassador to Finland in 1957.²⁶⁶ Eisenhower then instructed the FCDA to conduct further research on fallout shelters, identify existing structures that could be repurposed to provide fallout protection, and begin a public information campaign focused on shelters.²⁶⁷ Much of this was not new, as the FCDA had been researching shelter designs and their effectiveness throughout the 1950s despite Peterson’s opposition to large-scale shelter use; however, informing the American people about fallout shelters was a new step for the FCDA.²⁶⁸

²⁶³ Kerr, *Bandaid for a Holocaust?*, 109.

²⁶⁴ Blanchard, “American Civil Defense,” 7; Kerr, *Bandaid for a Holocaust?*, 109.

²⁶⁵ Rose, *One Nation Underground*, 29; Blanchard, “American Civil Defense,” 7. First-strike refers to a nuclear attack against an enemy’s nuclear weapons with the intention of destroying them before the enemy can retaliate with its own nuclear attack.

²⁶⁶ Kerr, *Bandaid for a Holocaust?*, 108.

²⁶⁷ United States Department of Homeland Security, *Civil Defense...Homeland*, 11.

²⁶⁸ Kerr, *Bandaid for a Holocaust?*, 60, 104. These research projects provided the foundation for future civil defense initiatives, such as the OCDM’s National Shelter Policy and Kennedy’s National Fallout Shelter Survey and Marking Program.

In 1958 Eisenhower took two further steps to reform the national civil defense system. First, he proposed amendments to the Federal Civil Defense Act of 1950 that would give the federal government more responsibility for civil defense, which was currently shared with “the several States and their political subdivisions.”²⁶⁹ The original law limited federal involvement to offering advice and material aid to state and local governments; Eisenhower’s amendments relaxed these restrictions and opened the possibility of federal funding for local civil defense expenses. Having broadened federal authority, Eisenhower then created the short-lived Office of Civil Defense Mobilization (OCDM) by merging the FCDA with the Office of Defense Mobilization, which had overseen the use of human and material resources for military purposes during wartime. The OCDM inherited the functions of its predecessors under the direction of former Iowa governor Leo Hoegh.²⁷⁰ Eisenhower apparently hoped that this reorganization would be interpreted as substantial progress toward protecting the nation.

Unfortunately for Holifield and other civil defense advocates, the OCDM failed to alter the civil defense landscape in any meaningful way. Certainly, its efforts were better than nothing. The OCDM continued research on “shelter design and the shielding characteristics of structures and materials,” much as the FCDA had under Peterson’s leadership.²⁷¹ Hoegh’s OCDM went a step further than its predecessor by educating the American public on radioactive fallout and what they could do to protect themselves against this invisible menace, such as building a family fallout shelter.²⁷² Sharing fallout shelter designs with civilians proved crucial to the National Shelter Policy, which became Hoegh’s major contribution to civil defense measures.

²⁶⁹ Kerr, *Bandaid for a Holocaust?*, 99; Blanchard, “American Civil Defense,” 6.

²⁷⁰ Blanchard, “American Civil Defense,” 7; Rose, *One Nation Underground*, 32.

²⁷¹ Kerr, *Bandaid for a Holocaust?*, 115.

²⁷² Rose, *One Nation Underground*, 33; Kerr, *Bandaid for a Holocaust?*, 115.

Revealed in May 1958, the National Shelter Policy paired evacuation planning with fallout shelters to finally confront each of the hydrogen bomb's threats: blast, heat, immediate radiation from the nuclear reaction itself, and most significantly, the resulting fallout radiation.²⁷³ At last, Americans could rest easy knowing that the federal government was taking the H-bomb seriously, or so it seemed. The National Shelter Policy omitted a key recommendation from the Holifield hearings and the Gaither, RAND, and Rockefeller reports: federal funding for a shelter program. State and local governments were not completely left to their own devices, as the OCDM surveyed existing buildings that offered some protection from fallout and explored ways to incorporate shelters into government buildings, but private citizens received no such assistance.²⁷⁴ Neither Eisenhower nor Congress wanted to use federal funds to build shelters, so Hoegh instead revived the FCDA's approach of providing research, advice, and guidelines without the material assistance to implement them.²⁷⁵

In place of federally funded community shelters, the OCDM advised citizens to build their own private shelters, a policy known as 'home defense'. Hoegh portrayed this policy as a continuation of American tradition: "back in the Indian age our forebearers, when they built their homes, also, provided a fortress. In 1958 the American people in their own home should provide themselves protection from radioactive fallout" with government "guidance and direction."²⁷⁶ Hoegh implored Americans to make "[e]very home a fortress...to attain the freedom won so dearly by our pioneer forebearers."²⁷⁷ Building a private shelter was a

²⁷³ Kerr, *Bandaid for a Holocaust?*, 112

²⁷⁴ *Ibid.*, 112.

²⁷⁵ Kerr, *Bandaid for a Holocaust?*, 112; Ralph E. Lapp, "Fallout and Home Defense," *Bulletin of the Atomic Scientists* 15, no. 5 (1959): 187.

²⁷⁶ *Bulletin of the Atomic Scientists*, "Candor in Congress," 181-2

²⁷⁷ Lapp, "Fallout and Home Defense," 188.

²⁷⁷ Rose, *One Nation Underground*, 34.

way to protect one's family while also performing a patriotic duty in the struggle to defend American freedom from the communist menace. Some experts believed 'home defense' could save many lives in a nuclear emergency – Dr. Libby claimed that basement shelters might save ten million American lives in the first 48 hours after an attack.²⁷⁸

However, critics opposed the OCDM's National Shelter Policy, including Holifield, who believed 'home defense' was a ridiculous method of protecting the nation. He compared it to establishing a military "by advising each [person] to buy himself a jet plane. You can't do it that way."²⁷⁹ Further investigation revealed the accuracy of Holifield's reasoning. Two years after launching the National Shelter Policy, Hoegh claimed that the OCDM had located sufficient shelter space for 25 percent of the nation's population.²⁸⁰ He conveniently neglected to mention that these spaces offered dramatically less protection against fallout than shelters considered by the FCDA as early as 1956.²⁸¹ Furthermore, many Americans rejected Hoegh's appeal to mimic their ancestors by fortifying their homes. An April 1960 poll revealed that 47.1 percent of respondents would not pay \$500 for a family fallout shelter, as opposed to the 39.9 percent who said they were 'interested' in such a proposal.²⁸² While the 39.9 percent suggests the presence of limited enthusiasm for civil defense, the Military Operations Subcommittee found that this attitude did not translate into actual shelter construction. When it surveyed civil defense officials across 35 states, they found that private citizens had built a trivial 1,565 home shelters by 1960.²⁸³ After four years of

²⁷⁸ Ibid., 30.

²⁷⁹ Kerr, *Bandaid for a Holocaust?*, 113.

²⁸⁰ Ibid., 115.

²⁸¹ Ibid., 116. Protection from radiation was measured in PF, or protective factor. A 1,000 PF meant that someone inside the shelter received one thousandth of the radiation they would have received if they were not sheltered. The 1956 FCDA proposals defined adequate shelter as offering 1,000 PF, whereas the OCDM's definition under the National Shelter Policy was a mere 100 PF. During Kennedy's civil defense initiatives, the OCD further lowered it to 40 PF.

²⁸² Ibid., 115.

²⁸³ Ibid., 115-116.

studies pushing for the federal assumption of civil defense responsibilities, Eisenhower and the OCDM had made precious little progress toward offering real protection to the American people.

Conclusion

As the Eisenhower presidency ended, the nation remained terribly exposed to the hydrogen bomb. Congressional and private inquiries into civil defense planning produced little change in the nation's preparedness for nuclear attack. Despite its flaws, evacuation remained the primary civil defense measure for millions of Americans in urban areas, while millions more possessed virtually no protection against radioactive fallout. Responsibility for civil defense still rested on the shoulders of local governments and private citizens as federal leaders excused themselves from this duty. But the conversation had begun. The Kefauver and Holifield committees, together with writers for the *Bulletin of Atomic Scientists* and participants in the Gaither, RAND, and Rockefeller studies, had thrown a stone into the tranquil pool of civil defense policy. They questioned the wisdom of entrusting civil defense preparations to local governments and their constituents, and demanded that the federal government become a true leader in civil defense and bear the burden for the nation's security. Their appeals largely fell on deaf ears in the Eisenhower administration, but John F. Kennedy's victory in the 1960 presidential election offered hope to those desperate for many changes, including a renewed civil defense effort. Kennedy would accept responsibility for leading the nation's civil defense program and offer Fargo the opportunity to rectify the inadequacies that so severely hampered their earlier civil defense efforts. Unfortunately, neither the city government nor their constituents chose to heed this second chance.

CHAPTER 3. BERLIN AND CUBA: FARGO FAILS TO PROTECT ITSELF FROM NUCLEAR CRISES

Civil defense across the United States suffered greatly in the 1950s due to the hydrogen bomb's advent and political indecisiveness from Congress and the Eisenhower administration. Some leaders, especially Holifield, wanted the federal government to shoulder the burden of civil defense and safeguard the American people. Others, including leaders in the OCDM and Eisenhower himself, refused to make the federal government responsible for civil defense and largely relegated the matter to state and local governments. The resulting confusion over civil defense responsibility and protective measures left Americans vulnerable to nuclear apocalypse, including residents of Fargo, whose civil defense crumbled to a mere shell of its former self.

Civil defense entered a new phase when John F. Kennedy became the thirty-fifth president in 1961. One of his many goals was an effective national civil defense system. Believing that this responsibility lay with the federal government, he called for a national fallout shelter initiative and federal funds to provide shelter supplies and ensure the people's survival in case of nuclear war. His actions, combined with rising Cold War tensions over Berlin and Soviet missiles in Cuba, revived American interest in civil defense and seemed destined to finally provide the protection sought by civil defense leaders throughout the previous decade.

Yet for all the excitement and interest in civil defense generated by rising Cold War tensions and Kennedy's initiatives, Fargo failed to create a functional civil defense infrastructure during Kennedy's presidency. This failure resulted from a lack of clarity over who was responsible for protecting Fargo's population, the financial burden of preparations, and a general apathy toward the specter of nuclear holocaust. This chapter contrasts the limited transformation of civil defense during the Kennedy administration with Fargo's

relative inaction in civil defense preparations in the early 1960s and analyzes how uncertain responsibility contributed to Fargo's vulnerability.

Divided Responsibilities: The North Dakota Plan

Before Kennedy's inauguration, North Dakota civil defense planners wielded the most influence on Fargo's civil defense preparations. Spearheaded by Colonel Noel F. Tharalson, the state's director of civil defense, the North Dakota Plan of 1960 integrated operations at the local, county, and state levels so that every North Dakotan could understand their role in civil defense.²⁸⁴ The North Dakota Plan anticipated four probable targets in a nuclear exchange: Minot Air Force Base, Grand Forks Air Force Base, Bismarck (the state capital), and Hector Airport in Fargo. Since the federal government refused to fund fallout shelter construction, and based on guidance from the OCDM, the plan called for the evacuation of target areas to the surrounding countryside where evacuees would be housed in "private homes and farms."²⁸⁵ To facilitate these operations, the North Dakota Plan assigned emergency roles to the state government, civil defense workers, and private citizens.

The state government was not expected to offer material assistance during a nuclear emergency. Instead, it held a supervisory role in coordinating the activities of county and local civil defense units and directing relief services to the areas of greatest need. Anticipating the destruction of North Dakota's major population centers, the plan gave most of the responsibility for rescue and recovery operations to county and municipal governments outside of the target areas. An estimated 150,000 evacuees from targeted areas would need instruction, shelter, and provisions in the aftermath of an attack.²⁸⁶

²⁸⁴ The North Dakota Plan: How You Will Survive (Bismarck, ND: North Dakota Civil Defense Agency, 1960), 10-13.

²⁸⁵ Ibid., 11.

²⁸⁶ Ibid., 19.

Surviving county and city governments would ration key supplies, such as food and fuel, and allocate available housing to evacuees. In addition to caring for displaced persons, they would provide rescue units, police services, and recovery equipment to assist victims caught within the blast radii. State civil defense planners thereby expected each region of the state to tend to its own needs and conduct recovery operations with virtually no state equipment or funding.

None of this mattered if people failed to evacuate Fargo and other likely targets. The North Dakota Plan divided the responsibility for evacuation between Fargo's government and its citizens. Fargo's government would complete three tasks when an attack occurred. First, it would warn the public through a combination of "sirens, church bells, telephones, and wardens" to initiate the evacuation process.²⁸⁷ Second, its police and auxiliary forces would facilitate the evacuation through traffic control, likely concentrating on major arteries such as Interstates 29 and 94, which run through the city. Third, the city's emergency resources (fire and rescue vehicles, emergency personnel, heavy equipment, etc.) would join the mass evacuation to outlying areas. The plan indicates that these resources would be used for recovery operations but fails to specify whether they would remain under city control or be incorporated into county or even state operations. While these measures would prove invaluable during a nuclear attack, the North Dakota Plan asked relatively little of Fargo's government aside from notifying the population and supporting the evacuation.

The same cannot be said of the typical Fargoan, who bore most of the responsibility for saving themselves under the North Dakota Plan. State civil defense planners expected civilians "to leave the target area [and] maintain themselves until they can be taken care of

²⁸⁷ Ibid., 18.

outside of the target area.”²⁸⁸ The plan advised Fargoans to properly maintain their vehicles, keep fuel tanks half full, and store a three-day emergency supply in the trunk. At home, they needed to keep one week’s worth of food, water, clothing, and blankets ready for a potential evacuation, as they would be “unable to depend on others” in an emergency.²⁸⁹ The plan also encouraged citizens to have a two-week supply of emergency materials in their homes in case they were unable to evacuate or told to shelter in place, though the plan does not mention privately constructed fallout shelters. By following these steps, citizens would pose less of a burden on rescuers and civil defense agencies, and might even offer help to others in need.²⁹⁰ State planners expected residents to save themselves from a nuclear attack until surrounding communities could mobilize their resources under state direction; the individual, rather than any government, held the key to their own survival.

In summation, the North Dakota Plan replicated the FCDA and OCDM plans by dividing civil defense responsibilities among private citizens and state, county, and local governments. The state would oversee recovery operations from afar and direct resources to areas in need, but the county governments would provide much of the manpower and equipment needed to save lives and rebuild society. In target areas like Fargo, citizens would provide their own survival supplies and remove themselves as city governments directed traffic and safeguarded emergency response vehicles and personnel. Success required the participation of every North Dakotan, as civil defense would be “only as strong as we [North Dakotans] all make it.”²⁹¹ Unfortunately for the North Dakota Plan’s creators, any strategy is only as good as its implementation. As the probability of nuclear war

²⁸⁸ Ibid., 8.

²⁸⁹ Ibid., 10.

²⁹⁰ Ibid., 10. Civilians were also encouraged to “pick up others who may be stranded” during the evacuation process.

²⁹¹ Ibid., 24.

reached its height in the early 1960s, Fargo was unprepared to meet this challenge. Before analyzing how financial concerns and disagreements over responsibility hampered Fargo's civil defense readiness, it is useful to consider how the North Dakota Plan limited Fargo's preparations for a nuclear apocalypse.

The North Dakota Plan bears some of the blame for Fargo's lackluster readiness during the Kennedy administration because it assigned few civil defense responsibilities to the city government. Its reliance on evacuation negated any need for the construction and stocking of public fallout shelters. Since private individuals bore the responsibility for their initial provision and transportation during the evacuation process and surrounding communities provided additional resources for their survival, Fargo's government failed to stockpile survival supplies for its citizens. Something as simple as a chain of command for city governance was unnecessary because Fargo would be abandoned before the attack and surrounding communities would care for Fargo's residents afterward. So long as Mayor Herschel Lashkowitz and the city government facilitated the evacuation, they could consider their civil defense duties fulfilled and focus on other matters. Fargo was therefore unprepared for rising Cold War tensions that brought the nation to the brink of nuclear war.

Fargo's Lackluster Response to Kennedy's First Call for Civil Defense

On May 25, 1961, Kennedy spoke before Congress regarding the nation's circumstances and its obligations in fighting for freedom during the Cold War. Among other things, Kennedy revealed his intention to improve the nation's civil defense capabilities, since the nation had "never squarely faced" the realities of nuclear war.²⁹² He viewed civil

²⁹² *President Kennedy's Special Message to the Congress on Urgent National Needs, May 25, 1961, Congressional Speech* (May 25, 1961), John F. Kennedy Presidential Library, http://www.jfklibrary.org/Research/Research-Aids/JFK-Speeches/United-States-Congress-Special-Message_19610525.aspx

defense as insurance against human irrationality and error in the age of nuclear weapons and proposed several measures to protect the nation in case things got out of hand. First, he wanted a national program for “identifying present fallout shelter capacity and providing shelter in new and existing structures,” which would be funded by the federal government.²⁹³ Second, he made the Secretary of Defense responsible for civil defense and dissolved the OCDM, whose duties would be divided among the newly formed Office of Civil Defense (OCD) under the Department of Defense and the Office of Emergency Planning. Third, he pledged to secure congressional funding toward a “much strengthened Federal-State civil defense program.”²⁹⁴ Kennedy envisioned civil defense as a responsibility shared by every American and each level of their government. He expected private citizens to contribute toward civil defense by building family fallout shelters, while state and local governments would add shelter spaces in government buildings; however, they would be following the federal government’s lead rather than venturing forth on their own.²⁹⁵

Kennedy’s decisions, particularly his request for congressional funding, constituted a significant shift in civil defense policy because it made the federal government responsible for the direct implementation of civil defense practices. During the Truman and Eisenhower eras, federal civil defense officials developed best practices and communicated these findings to the public but shied away from acting on them; they left this duty to the states, local governments, and private citizens. However, state and local governments often lacked the financial means to act on federal recommendations, which resulted in inadequate civil defense preparations in the years prior to Kennedy’s presidency. Fargo is an excellent example of this situation, as its rapid growth and renovation over the ten years preceding

²⁹³ Ibid.

²⁹⁴ Ibid.

²⁹⁵ Fehr, “Sheltering Society,” 309.

Kennedy's presidency left little money to spend on civil defense improvements, even with federal guidance and recommendations on how the inadequate money could best protect residents. Because Kennedy could not expect state and local governments to fund their own protection, he asked the federal government to bear much of the cost. The *Fargo Forum* captured this idea in an article discussing the status of civil defense as the Berlin Crisis intensified. According to the article, when state and local officials asked for "more vigorous federal leadership," they really wanted "Uncle Sam to put up the money that overburdened city treasuries cannot provide."²⁹⁶ Kennedy agreed that an effective civil defense required federal funding, and therefore asked Congress to triple civil defense spending to provide effective protection for all Americans.²⁹⁷ Federal funding would provide a foundation for local governments, together with individual citizens, to build upon as they finally attained a realistic and practical civil defense.

Of course, not everyone agreed with Kennedy's version of a civil defense.

Unsurprisingly, Holifield believed that the federal government needed to do even more to safeguard American lives. He viewed Kennedy's request for millions of dollars to identify shelter space in existing structures as a good first step, but believed that true protection necessitated billions of federal dollars for the construction of community fallout shelters.²⁹⁸ Holifield doubted that individual citizens would follow the federal government's lead, again declaring that expecting citizens to provide their own shelter was as foolish as asking them

²⁹⁶ "Communities Look to Congress for Essential of Civil Defense – Money," *Fargo Forum*, July 26, 1961.

²⁹⁷ *President Kennedy's Special Message to the Congress on Urgent National Needs, May 25, 1961, Congressional Speech* (May 25, 1961), John F. Kennedy Presidential Library, http://www.jfklibrary.org/Research/Research-Aids/JFK-Speeches/United-States-Congress-Special-Message_19610525.aspx

²⁹⁸ "Many Believe Citizens Will Refuse to Spend for Civil Defense Needs," *Fargo Forum*, July 1, 1961.

“to provide [their] own machine gun for defense against an enemy attack.”²⁹⁹ Other congressional leaders shared Holifield’s concern about public apathy, but favored alternative federal actions to persuade private households to shoulder some responsibility for civil defense. Many argued that tax incentives could stimulate public action. For example, Senate Minority Leader Everett Dirksen (R-IL) thought Congress could offer a tax deduction to homeowners who built their own fallout shelters, or exempt shelter improvements from land value appraisals to avoid tax increases.³⁰⁰ While they disagreed about the extent of federal authority for civil defense, congressional leaders believed that more federal leadership was necessary. But would this inspire local citizens and their governments to take civil defense more seriously?

Fargo’s government showed little interest in civil defense in the two months following Kennedy’s May 25 speech. City commissioners made no attempt to gather information concerning the shelter initiative and how it might affect one of North Dakota’s major cities, nor did they take substantive steps toward assessing or improving Fargo’s civil defense readiness. The only discussion relating to civil defense occurred in mid-June at the request of Police Captain Edwin Anderson. Starting in 1958, the police department’s Traffic Bureau contacted the OCDM several times regarding matching funds for traffic signals since traffic control contributed to civil defense measures.³⁰¹ Anderson stated that such funding was in fact available, as the OCDM had recently provided matching funds toward similar traffic systems in Columbus, Ohio. However, the OCDM had not responded to Fargo’s requests, so the police department asked the city commissioners to submit a formal request to the “appropriate Civil Defense officials,” likely referring to those at the state

²⁹⁹ Ibid.

³⁰⁰ Ibid.

³⁰¹ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, June 13, 1961, mss. 42, box 23, folder 1, p. 1210, NDIRS.

level since Leonard Caverly, Cass County's director of civil defense, had been unsuccessful in securing the funds.³⁰² The city commission approved this request, but their decision suggests one explanation for the city's reluctance to participate in the civil defense revival.

Civil defense's financial burden proved too heavy for Fargo's city commissioners, and they pursued civil defense improvements only when they were inexpensive or funded by outside agencies. Starting in the mid-1950s and concluding in the mid-1960s, Fargo experienced substantial growth in terms of size and services provided to its residents. During this time, Fargo's population grew by 22 percent while its territory increased by 44.7 percent, not including the expansion of Hector Airport.³⁰³ Fargo added dozens of miles of streets and sidewalks, invested heavily in water lines and sewage installations, and conducted its first urban renewal project in the downtown area, resulting in the clearing of nine blocks and the construction of a new City Hall and the Civic Memorial Auditorium. Federal and state funding reduced the city's portion of these efforts, but Fargo still spent millions of dollars on improvements during this period, leaving little money to spare for nonessential expenses.

Kennedy's push for civil defense occurred toward the end of this development, and city planners proved reluctant to spend funds on civil defense while more pressing expenses mounted. The cost of civil defense was a frequent obstacle to Fargo's civil defense improvements, as demonstrated by the commission's request for traffic signal funding from the OCDM. As part of Fargo's urban renewal project, the city needed to install new traffic control systems.³⁰⁴ Since the matching funds would apply toward traffic signals installed

³⁰² Ibid.

³⁰³ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Apr. 21, 1964, mss. 42, box 24, folder 6, p. 2691-2, NDIRS; United States Department of Commerce, Bureau of the Census, *Eighteenth Census: 1960*, Vol. 1, Part 36-11, accessed December 10, 2021, <https://www2.census.gov/library/publications/decennial/1960/population-pc-p1/15611091ch2.pdf>

³⁰⁴ "Fargo to Ask Civil Defense Funds for Traffic System," *Forum*, June 14, 1961.

over the past three years, Anderson estimated that Fargo could receive up to \$50,000 from federal civil defense funds, thereby allowing the city to reallocate these funds toward other pressing needs.³⁰⁵ Similar aid from federal and state agencies had already funded significant developments, such as Fargo's urban renewal project, the expansion of Hector Airport, and improvements to the city's sewage treatment capabilities.³⁰⁶ Outside funding greatly facilitated Fargo's growth spurt, and city commissioners likely viewed the OCDM as another source of such funding rather than an investment in civil defense. Fargo's financial obligations left little money to spare for civil defense measures; therefore, city leaders left Fargoans to fend for themselves in a nuclear emergency.

Some North Dakotans believed that private individuals should be responsible for civil defense rather than the government. One prominent example is the *Fargo Forum*, which responded to Kennedy's May 25 speech by publishing a seventeen-part series entitled "You and the Cold War" to help readers "better understand [their] role as a front-line private in this radically new kind of war."³⁰⁷ The series covered a variety of Cold War topics, including its origins, recent communist successes, the controversy over Berlin and its importance to long-term victory, and the nuclear menace. The first segment bears special significance because it presented the Cold War as a struggle involving every American, not just the government or military. The article cited Admiral Arleigh A. Burke, chief of naval operations, who criticized Americans who "are so self-satisfied, so comfortable, so content that they cannot be bothered with the realities and the dangers

³⁰⁵ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, June 13, 1961, mss. 42, box 23, folder 1, p. 1210, NDIRS.

³⁰⁶ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Apr. 21, 1964, mss. 42, box 24, folder 6, p. 2691-2, NDIRS.

³⁰⁷ "You and the Cold War: Can Nation Long Endure? We are Failing the Test," *Fargo Forum*, June 11, 1961.

which surround them.”³⁰⁸ In his view, many Americans were uninformed about the Soviet threat (including nuclear attack), falsely believed that “the urgent need for action [was] meant for someone else,” and “shirk[ed] their responsibility.” Burke called for private citizens to recognize the danger posed by Soviet aggression and to do something about it, such as participating in civil defense. In publishing Burke’s views, the *Fargo Forum* supported the idea of personal responsibility for civil defense. This theme appeared throughout the “You and the Cold War” series, as well as other articles written during the Berlin Crisis in the summer of 1961.

For example, the *Fargo Forum* ran an article on family survival strategies for its readers, believing that “Your chances of staying alive in a...nuclear attack...depends on what *you* do to prepare for it” (emphasis added).³⁰⁹ Drawing from “The Family Fallout Shelter,” an OCDM pamphlet published in 1958, the article encouraged readers to build their own shelter before an attack and outlined how they could prepare an improvised shelter if caught unprepared by an attack.³¹⁰ By encouraging readers to acquire this “little gold mine” of survival tips from their local civil defense office, the *Fargo Forum* told citizens to act for their own survival rather than relying on the government to protect them. The citizen, not the government authorities, would make civil defense a reality.

Two other organizations in North Dakota shared the *Fargo Forum*’s perspective on civil defense. The North Dakota Civil Defense Association (NDCDA) initially praised Kennedy for his “inspiring leadership in the cause of building a strong and aggressive and effective” civil defense.³¹¹ However, they also warned Kennedy, R.W. Carlson (North

³⁰⁸ Ibid.

³⁰⁹ “Pamphlet Offers Ideas for a Fallout Shelter,” *Fargo Forum*, July 31, 1961.

³¹⁰ Ibid.

³¹¹ Charles L. Johnston to John F. Kennedy, June 26, 1961, Hjalmar Nygaard Papers, box 59, folder 9.

Dakota's director of civil defense), and their congressmen of adverse consequences if the federal government held too much authority in this matter. The NDCDA feared that placing civil defense within the Department of Defense "threaten[ed] the basic concept of Individual Preparedness and Local Responsibility," which the NDCDA found unacceptable.³¹² In their view, Kennedy's plans removed too much accountability from the individual and might cause the "relaxation of local interest and the deterioration of the total Civil Defense effort."³¹³ The NDCDA viewed civil defense as every American's patriotic duty, with local and state organizations offering support and guidance as needed. Without individual responsibility, civil defense would wither away and leave the nation vulnerable to Soviet attack. Put simply, there could be no civil defense without individual responsibility.

While the NDCDA warned of the hazard of supplanting individual responsibility, delegates at a North Dakota convention of the American Lutheran Church (ALC) instructed 94,000 parishioners to support civil defense activities "as a matter of Christian responsibility."³¹⁴ The ALC recommended several ways for members to fulfill this obligation. First, parishioners could "pray that there may be peace among the nations of the world" in hopes that war could be averted.³¹⁵ Second, the ALC expected parishioners to fully cooperate with local civil defense organizations by informing themselves about civil defense planning or preparing fallout shelters in their homes. Third, parishioners could assist others who were affected by manmade or natural disasters. This last method reflects the North Dakota Plan, which called for surrounding communities to receive and assist evacuees from major population centers. The key implication of the ALC's recommendations

³¹² Ibid.

³¹³ Ibid.

³¹⁴ "Church Group Urged to Aid in Disaster Preparedness," *Fargo Forum*, July 14, 1961.

³¹⁵ Ibid.

was that church members had both the ability and religious duty to contribute toward their community's emergency needs. Congregations were active agents in civil defense, not passive recipients of aid from federal, state, or local organizations. Like the NDCDA and the *Fargo Forum*, the ALC encouraged Fargoans to bear responsibility for their protection, a development that complemented the views of Fargo's public officials. These demands for individual responsibility in civil defense bore precious little fruit in the early days of the Berlin Crisis as Fargoans showed limited interest in civil defense preparations.³¹⁶

One positive event was the dedication of a prototype fallout shelter at the Yunker family farm. The OCDM had funded the shelter for public display, but its official dedication occurred just three days after Kennedy's call for civil defense improvements.³¹⁷ It is unclear whether the dedication resulted from Kennedy's speech or if it was merely a coincidence; either way, civil defense leaders hoped it would galvanize residents to act. Civil defense Directors Carlson and Caverly presided over the shelter's dedication and held a public viewing afterward. No guest count for the dedication is available, but the *Fargo Forum* provided two images for its readers: the first image shows an unfinished shelter built next to the house's foundation, while the second image depicts Laurence Yunker and his son examining survival equipment stored within the shelter, including a radio, an air blower, food, and a first-aid kit.³¹⁸ The shelter's dedication may not have been a direct consequence of Kennedy's speech, but it demonstrates that some level of interest in civil defense existed in Fargo. Not only had a local family incorporated a permanent fallout shelter into their home, but the shelter became a model for citizens interested in protecting themselves from fallout radiation.

³¹⁶ Fehr, "Sheltering Society," 295-6.

³¹⁷ "Dedication of Fallout Shelter Set," *Fargo Forum*, May 26, 1961.

³¹⁸ "Fallout Shelter," *Fargo Forum*, May 28, 1961.

Interested citizens soon benefited from a second opportunity to learn about civil defense in their community, though this occurred in neighboring Moorhead. Two weeks after the Yunker shelter's dedication (and Kennedy's speech), Moorhead State College hosted a weeklong civil defense workshop, considered by some to be the "first of its kind in the nation."³¹⁹ Sponsored by the Minnesota Department of Civil Defense, the workshop offered a deeper look into the present state of the Cold War and how local citizens could join the struggle. Enrollment was open to the public and for a mere \$15, attendees could learn about a variety of topics, such as recent communist expansion, civil defense planning at the state and local levels, problems in civil defense communication, how schools could contribute to civil defense, and the National Guard's response to disasters. Since Fargo and Moorhead are neighboring cities and the *Fargo Forum* advertised the event, Fargoans were likely among the 100 people who attended the event.³²⁰ Together with the Yunker shelter, the workshop suggests that some level of interest in civil defense existed in Fargo in the summer of 1961. It is notoriously difficult to measure the public's participation in civil defense, but opportunities existed for Fargoans to learn about precautionary measures and how they would be protected from nuclear attack, and at least a few residents, such as the Yunker family, were attentive to these concerns. However, the majority of Fargoans seemingly rejected any responsibility for civil defense efforts and continued their regular lives unimpeded by concerns for their safety during an atomic attack.

In the two months after Kennedy's first call to action, Fargo showed few signs of improving its overall civil defense readiness. While some citizens attended a workshop, viewed a model shelter, or potentially built their own, too few citizens embraced civil

³¹⁹ "Speakers Set For Workshop At MSC On Civil Defense," *Fargo Forum*, June 4, 1961.

³²⁰ "Civil Defense Group Told of SAC Role," *Fargo Forum*, June 7, 1961.

defense to give the city much hope for nuclear survival.³²¹ Likewise, the city commissioners declined to improve Fargo's protection for two reasons. The cost of protection against nuclear attack dissuaded city leaders from investing in civil defense, as the city's continued growth proved a constant drain on its financial resources. Their only official action on civil defense, a request for matching funds toward a traffic light system, was likely motivated by financial concerns more than any protective benefits. Disagreements over who bore the responsibility for civil defense also contributed to Fargo's inaction, allowing city leaders to evade liability for the city's protection. If Kennedy succeeded in making civil defense a federal responsibility, then Fargo would be protected by the OCD's fallout shelter program. If civilians bore the responsibility as a patriotic or religious duty, then they needed to evacuate or provide their own shelter. If the North Dakota Plan limited Fargo's role to traffic control and the evacuation of city equipment, the matter required no further action from the city's government. Either way, Fargo's leaders were off the hook and could safely ignore civil defense while providing basic services to their constituents. As a result, Fargo made little progress toward civil defense improvements in the spring of 1961.

Fargo's Actions after Kennedy's Second Call for Civil Defense

The clouds of war gathered over Berlin throughout the summer of 1961. At a Vienna meeting in June, Soviet Premier Nikita Khrushchev threatened to seal off American access to Berlin if the United States did not withdraw its military forces from the city.³²²

Khrushchev intended to give the East German government authority over West Berlin, effectively forcing the Allies to end their occupation of the city or face the prospect of a new

³²¹ Mark Peihl, "Clay County and the Bomb – Civil Defense in the Cold War and Backyard Bunkers," *The Hourglass: Historical and Cultural Society of Clay County Newsletter* 2, no. 4 (2010): 10. Caverly believed that interest was growing rapidly and estimated that civilians were building shelters by the hundreds, though he later lowered that number to fewer than 100.

³²² Fehr, "Sheltering Society," 300.

(and potentially nuclear) war in Europe.³²³ Refusing to be intimidated, Kennedy doubled down on the United States' commitment to Berlin in a national television and radio broadcast on July 25, 1961. Much of Kennedy's speech focused on increased military spending and the nation's commitment to defending freedom, but he also embraced the federal government's civil defense role in identifying, marking, and stocking fallout shelters in existing spaces and improving "air-raid warning and fallout detection systems."³²⁴ However, Kennedy also sowed confusion by pledging "to let every citizen know what steps he can take without delay to protect his family in case of attack."³²⁵ Was Kennedy suggesting that the federal government would provide shelter for all Americans through the National Fallout Shelter Survey (NFSS)? Or was he saying Americans needed to provide their own shelter? Many families did not know how to interpret Kennedy's statements and waited to see whether they would be protected under the NFSS or be forced to improvise their own measures.³²⁶ It is difficult to determine Kennedy's full intentions since the NFSS failed to advance beyond its initial stage, but he sparked a nationwide conversation on the merits of civil defense that confronted Fargo's leaders and residents with a dilemma: should they increase their civil defense readiness or ignore the president's call?³²⁷

After Kennedy's speech on July 25th, Fargo's city commissioners took tentative steps toward civil defense readiness, but unclear responsibilities and cost concerns again limited their actions. Given the disagreement and confusion over how individuals and federal,

³²³ "Berlin Poses Grim Threat to Peace," *Fargo Forum*, June 25, 1961.

³²⁴ John F. Kennedy, "Radio and Television Report to the American People on the Berlin Crisis, July 25, 1961" (speech, Washington, DC, July 25, 1961), John F. Kennedy Presidential Library and Museum, <https://www.jfklibrary.org/archives/other-resources/john-f-kennedy-speeches/berlin-crisis-19610725>

³²⁵ *Ibid.*

³²⁶ "Subsidy for Shelters," *Minneapolis Morning Tribune*, Dec. 16, 1961.

³²⁷ Fehr, "Sheltering Society," 309; Paula Fozzy, "Fallout Shelters: Interest Grows," *Bulletin of the Atomic Scientists* 17, no. 10 (1961): 439.

state, and local governments shared the burden of civil defense, the commissioners sought clarification about Kennedy's vision and what it might require from Fargo's government. Their first effort to learn more about the NFSS occurred toward the end of September 1961, when the Corps of Engineers held a civil defense meeting in Aberdeen, South Dakota.³²⁸ Fargo's commissioners authorized the city's building inspector, Neil Bergquist, to attend the meeting to "become fully familiar with the fallout shelter program in the City of Fargo."

329

While this approval could suggest a growing interest in Kennedy's program, it more likely reflected the city government's previous worries over funding and a desire to minimize its role in civil defense. Fargo's leaders needed to know what would be expected of them as the NFSS unfolded. Kennedy's \$207 million request covered the survey, marking, and stocking of existing fallout shelters, but were there hidden costs that the city would have to bear? Fargo's government lacked the money to make civil defense a priority and likely hoped to avoid any obligation toward the city's protection. If the commissioners had been willing to contribute toward a renewed civil defense campaign, they could have increased or at least maintained their budget for civil defense; instead, they cut \$400 from Fargo's civil defense budget for FY62.³³⁰ It is therefore plausible that part of Bergquist's mission in attending the Aberdeen meeting involved an assessment of local costs associated with the NFSS. Fortunately for the Fargo commissioners, Bernquist reported that the city would bear no hidden costs for the project.

³²⁸ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Sept. 26, 1961, mss. 42, box 23, folder 2, p. 1410, NDIRS.

³²⁹ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Oct. 3, 1961, mss. 42, box 23, folder 3, p. 1432, NDIRS.

³³⁰ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, July 26, 1961, mss. 42, box 23, folder 2, p. 1298, NDIRS.

Bernquist's second objective was to learn how the NFSS would function and what role the city would have in its completion. Based on Kennedy's initiative, the federal government would coordinate and fund the NFSS, but Fargo's commissioners needed more answers. Who would conduct the survey? How would shelter spaces be stocked? Would the city bear responsibility for any aspect of the survey? Bergquist's report identified no role for Fargo's government in the survey itself nor in the provisioning of supplies for identified spaces. Instead, his report suggested that the federal government, acting through the Corps of Engineers, would hire local architects and engineers to conduct the survey. Bergquist failed to specify who would stock the fallout shelters with supplies, but the implication is that the city would not bear this responsibility either. Fargo's government was only expected to provide access to city records, such as building inspector records. Based on this report, Fargo bore little responsibility for the implementation of Kennedy's civil defense plans; however, Kennedy and the federal government were not the only ones pushing for civil defense improvements.

On August 23, 1961, North Dakota governor William I. Guy ordered a review of the state's civil defense apparatus.³³¹ Continued tensions over Berlin persuaded Guy to act, as Khrushchev had recently ordered the construction of the Berlin Wall and American combat troops were deployed across from East German forces at security checkpoints.³³² Guy wanted to protect North Dakotans in case the Berlin Crisis plunged the nation into nuclear war; however, he also believed that the Kennedy administration had assigned this responsibility to state governments.³³³ This seems odd since Kennedy clearly pushed for broader federal involvement in civil defense, but Guy may have been referring to civil

³³¹ "Guy Orders Shoring Up of Civil Defense in N.D.," *Fargo Forum*, August 23, 1961.

³³² "U.S. Uses Tanks, Guns in Show of Force," *Fargo Forum*, August 23, 1961.

³³³ "Guy Orders Shoring Up of Civil Defense in N.D.," *Fargo Forum*, August 23, 1961.

defense in the short term and not Kennedy's future vision of a national shelter system. North Dakotans needed immediate protection from Berlin's fallout and could not afford to wait for Kennedy's shelter survey, which was scheduled to conclude by the end of 1962.³³⁴ Guy may have believed the state needed to provide protection in the meantime and therefore ordered a review of the state's readiness, including plans for food rationing, emergency hospitals, radiation detection services, and a public awareness program.³³⁵ Since Guy's orders included making "city officials" aware of "survival measures at local levels," Fargo's government now questioned whether the governor's actions would force them to take action on the civil defense issue.

To settle this matter, Fargo's city attorney exchanged a series of letters with North Dakota's attorney general that revealed the city's attitude toward the state's civil defense alerts and perhaps civil defense overall. The disagreement started when Director Carlson and the state government began conducting practice alerts to gauge North Dakota's civil defense capabilities and their effectiveness. Fargo's leaders were unsure of what their responsibilities were in a state civil defense alert, as noted by the city attorney during a commissioner meeting in October 1961; during the alert, city department officials sought guidance on their exact duties but received no clear answer.³³⁶ Their confusion is understandable since neither state nor local laws detailed the precise duties of city authorities during civil defense alerts. The city attorney therefore contacted the state attorney general to settle the matter. Their correspondence reveals a fundamental disagreement between city and state views on who was responsible for civil defense.

³³⁴ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Oct. 3, 1961, mss. 42, box 23, folder 3, p. 1432, NDIRS.

³³⁵ "Guy Orders Shoring Up of Civil Defense in N.D.," *Forum*, August 23, 1961.

³³⁶ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Oct. 17, 1961, mss. 42, box 23, folder 3, p. 1447-8, NDIRS.

State authorities believed that the various levels of government collectively shared the responsibility for civil defense, arguing that “the whole philosophy of the Civil Defense Act is one of co-operation between the civil defense organizations of the political subdivisions, State Civil Defense Director and the federal agencies.”³³⁷ As outlined in the North Dakota Plan, local preparations were largely left to local governments but the governor and state civil defense officials would coordinate the operations of civil defense organizations across the state, meaning the governor could request aid from Fargo’s resources and personnel in responding to a nuclear attack. Director Carlson was also available to help Fargo create a plan for its civil defense activities and facilitate its participation in civil defense alerts.

However, the state expected Fargo’s cooperation in an emergency and reserved the right to involve itself in city affairs if the situation warranted such action. The correspondence between Fargo’s city attorney and the attorney general failed to specify the precise circumstances under which such intervention might occur, and it is unlikely that the attorney general himself knew what those conditions might be. Since the state emphasized cooperation between itself and local communities, it seems plausible that the state government had no intention of intervening in city affairs but was merely reserving the authority to do so if it became necessary. The state believed a nuclear attack on North Dakota would cause unparalleled devastation and that recovery would require the use of every remaining resource. It preferred cooperation in utilizing those resources but could employ emergency powers to attain them if cooperation proved lacking.

Fargo’s commissioners viewed the situation differently, believing that the city retained “the direct and supervising authority” for operations during a civil defense alert.³³⁸

³³⁷ Ibid.

³³⁸ Ibid.

They did not want state or even county civil defense organizations interfering in Fargo's operations. While they did not preclude the possibility of cooperation with the state outright, they wanted the state to follow Fargo's proper chain of command to acquire assistance. They also feared encroachment from county-level civil defense organizations who might "come in and direct or take over the operations of the various City departments" during an emergency.³³⁹ The city attorney defended the city's authority and sought confirmation from the attorney general, who likewise found no legal basis for a county takeover of city governance.

It seems odd that Fargo's leaders defended their authority over civil defense matters given their reluctance to take an active role in protecting Fargoans from Soviet attack. However, Fargo's emphasis on local authority enabled them to minimize civil defense spending since they only needed to oversee the city's evacuation under the North Dakota Plan. This placed much of the responsibility for civil defense (evacuation, preparation of supplies, etc.) on Fargo's residents rather than its government; therefore, the commissioners may have been protecting their citizens' resources more than those of the city in general. Another possibility is that they did not want outside authorities forcing them to prepare civil defense measures, choosing instead to largely ignore the threat. This may also reflect the 'turf wars' that generally arise when federal, state, and local governments clash over resources, zoning, funding, and other issues. Perhaps the commissioners were protecting their city against invasive actions by outside authorities, which is common enough in many American communities. Regardless of their reasoning, Fargo's commissioners defended their autonomy in civil defense matters and were allowed to make their own plans for nuclear apocalypse, or to ignore the matter altogether.

³³⁹ Ibid.

Having established the city's autonomy over civil defense matters, Fargo's leaders took limited practical steps toward protecting their constituents as the Berlin Crisis concluded. Their first task was the creation of a civil defense plan since no functional strategy existed as of October 1961.³⁴⁰ This is surprising since Fargo had established an elaborate civil defense plan involving a civil defense committee and hundreds of citizen volunteers less than a decade earlier. Somewhere along the way, Fargo's leaders had lost interest in maintaining a high state of readiness and allowed civil defense to wither away. Fargo was not the only city left unprotected by their leaders' apathy. Federal civil defense officials feared many city and county programs across the nation, established at the height of the Korean War, had since fallen away as the Cold War became a part of normal life.³⁴¹ Given the opportunity to revive their civil defense, Fargo's government declined to develop a plan of action. At a commissioner meeting in October, two months after the Berlin Wall's construction, city leaders tabled the matter for future discussion. Since no evidence of a cohesive plan exists in the city records after this date, it seems unlikely that they made much progress toward creating a formal civil defense strategy.

Although it lacked a formal plan, Fargo's leaders considered how they would maintain control over its implementation. Mayor Lashkowitz, as president of the Board of Commissioners, ordered the department heads to establish a chain of command to ensure orderly succession.³⁴² It may seem odd that Fargo had not taken this step yet, but recall that Governor Guy issued the same order to the state civil defense director two months earlier, and Fargo therefore may not have lagged too far behind the curve in this matter.³⁴³

³⁴⁰ Ibid.

³⁴¹ "War Advent Wound Find Home Front Unprepared," *Fargo Forum*, July 27, 1961.

³⁴² Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Oct. 17, 1961, mss. 42, box 23, folder 3, p. 1447-8, NDIRS.

³⁴³ "Guy Orders Shoring Up of Civil Defense in N.D.," *Forum*, August 23, 1961.

Fargo also required a headquarters for its civil defense response, so Lashkowitz recommended that a basement room in the city's water treatment plant be equipped for use as a control center.³⁴⁴ However, this was not a substantial step because the city still lacked a command center four months later, and probably never established it after the peaceful resolution of the Berlin Crisis removed the need for its construction.³⁴⁵ At this point, Fargo's leaders apparently believed they had fulfilled their obligation for civil defense, as they made no attempts to stockpile supplies or provide shelter space; they left this responsibility to their constituents.

Since Fargo officials expected citizens to provide their own protection against nuclear attack, the city commission considered several ways to incentivize the construction of private fallout shelters at a meeting in September 1961.³⁴⁶ One option asked city officials to lead by example and build private shelters for their families. Lashkowitz met with city officials to convey the importance of protecting their families themselves rather than relying on government protection. He was not solely concerned with their families' well-being, however, for these efforts would yield an additional benefit. If officials built personal shelters, he reasoned, the public would "become better educated on the subject and be more aware of its necessity" and follow suit in safeguarding their families.³⁴⁷ The commissioners also considered the challenges of building shelters in existing structures, especially in terms of cost. Based on OCDM estimates from 1959, American homeowners could expect to spend anywhere from \$150-\$700 on a permanent fallout shelter, or between \$1,425-\$6,650

³⁴⁴ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Oct. 17, 1961, mss. 42, box 23, folder 3, p. 1447-8, NDIRS.

³⁴⁵ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Feb. 27, 1962, mss. 42, box 23, folder 4, p. 1602, NDIRS.

³⁴⁶ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Sep. 12, 1961, mss. 42, box 23, folder 2, p. 1371, NDIRS.

³⁴⁷ *Ibid.*

when adjusted for inflation.³⁴⁸ The city found no method for encouraging shelters in existing structures but considered changing the building code to allow for shelter construction in new buildings. Throughout these discussions, Fargo's commissioners refused to directly protect their constituents and only considered how they might encourage Fargoans to build their own civil defense, which was an ineffective substitute for government provision.

The Berlin Crisis highlighted the nation's vulnerability to Soviet attack and stimulated national interest in civil defense, but Fargo made few efforts to rectify this weakness. The city government defended its autonomy from state and county incursions but failed to do much with that authority. It lacked a coordinated plan for civil defense alerts or a functional headquarters from which to implement this nonexistent plan. The city retained minimal responsibilities for facilitating evacuation under the North Dakota Plan, but transferred crucial civil defense tasks to their residents, who would pay for their own shelters, supplies, and transportation rather than relying on community resources. City leaders considered a few halfhearted options to motivate private construction of fallout shelters, but Fargoans failed to build shelters in response; by 1964, well after the Berlin and Cuban Missile Crises had concluded, Fargo possessed a mere 92 fallout shelters.³⁴⁹ Fargo lacked the fallout shelters necessary for its residents' survival in late 1961 because Kennedy's NFSS was still at a nascent stage and Fargo's government had relinquished this responsibility to its citizens without offering much guidance on how to protect their families. Fargo remained vulnerable to nuclear attack because its leaders and residents refused to embrace any responsibility for civil defense.

³⁴⁸ Office of Civil and Defense Mobilization, *The Family Fallout Shelter* (Battle Creek, MI: Office of Civil and Defense Mobilization, 1959), 6, 13.

³⁴⁹ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Aug. 4, 1964, mss. 42, box 24, folder 7, p. 2853, NDIRS.

Fargo Unites Against the Flood of 1962

This does not mean that Fargo was unable to take decisive action against catastrophe, for an imminent natural disaster soon revealed the city's ability to protect itself in times of emergency. In the spring of 1962, several months after the city commission contemplated a new civil defense plan, the Red River threatened to inundate Fargo during its annual flood. Rather than dawdling over responsibility and the cost of protective measures, Fargo's leaders leapt into action. The commissioners delegated authority for the city's disaster response to Lashkowitz and City Engineer George Brekke, who moved quickly to protect Fargo from the rising floodwaters.

Lashkowitz and Brekke toured surrounding areas along the Red River to understand the full scope of the problem and how best to defend the city.³⁵⁰ Lashkowitz then met with local businesses to secure equipment and materials for the city's protection, such as sandbags, shovels, trucks, and water pumps. He also requested the assistance of several veterans groups in mobilizing the many volunteers required for filling sandbags and erecting dikes along the river. Having concluded these preparations, Lashkowitz reported that "all are willing to cooperate so that the City can be in a state of readiness" if the Red River breached its banks.³⁵¹ Through these efforts, city officials made Fargo self-sufficient and capable of handling its own problems. However, Fargo needed to know what assistance the state and county governments could offer, so Lashkowitz attended a Governor's Conference in Bismarck to better understand what supports were available. The state expected Fargo to "take initial steps in preparing and protecting themselves from any impending flood threat"; city leaders could only seek outside aid if they found themselves

³⁵⁰ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Mar. 20, 1962, mss. 42, box 23, folder 4, p. 1643, NDIRS.

³⁵¹ *Ibid.*

overwhelmed by the Red River, first from the county and then from the state once the county's resources dried up.³⁵² Although the flood proved less severe than expected, Fargo stood against the flood by utilizing its own resources under their officials' leadership.

The city's successful flood measures contrast sharply with the inadequacy of its civil defense measures. During the flood, city leaders exercised considerable authority over flood preparations; rather than fending for themselves and hoping for the best, Fargoans relied on the guidance and leadership of their elected officials. Lashkowitz and Brekke coordinated the actions of local businesses and civic organizations, determined the city's duties, and contacted other governments for assistance. By taking direct action, city leaders ensured that Fargo maximized its own protection. Such leadership was not present in the city's response to the Berlin Crisis. Having determined that Kennedy's NFSS could not offer protection in time, Fargo's government refrained from improving the city's readiness. It failed to organize local resources, delayed the creation of an emergency response plan, and largely left residents to fend for themselves as Cold War tensions rose. Their most significant step toward readying civilians for disaster (encouraging city officials to build their own family shelters) required voluntary participation from Fargoans, who failed to do much in response.

A major factor in Fargoans' differing responses to flooding and nuclear war was their understanding of each threat and what they could do about it. Fargoans fully understood both the flood threat and which measures could protect them from the rising waters. They viewed the flood as an imminent threat that could radically disrupt and threaten their lives, and this hazard required action. Every year, they warily watched the Red River during the spring thaw, knowing that action may be needed to avoid disaster. And when

³⁵² Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Mar. 27, 1962, mss. 42, box 23, folder 4, p. 1652, NDIRS.

the floodwaters threatened, Fargoans united in erecting dikes to contain the threat and protect their city. Even today, this is regular practice for Fargo residents.

Fargoans lacked this knowledge when it came to civil defense. As previous chapters have shown, both the nuclear threat and civil defense guidelines changed several times in the preceding decade, leaving Fargoans with an unclear understanding of which hazard (blast, heat, or radiation) required their fullest attention or which protective measures (emergency training, evacuation, blast shelter, or fallout shelter) offered the best chance of survival. Since they lacked prior experience with real nuclear disasters, they may have questioned the bomb's true impact and whether they could do anything about it because popular media, such as Nevil Schute's *On the Beach*, often painted a gloomy picture of life during and after a nuclear holocaust.³⁵³ Even if they had a full understanding of the bomb and its dangers, atomic weapons had never struck American soil. Nuclear war was a hypothetical possibility that demanded no immediate action from Fargo's residents. However, their lack of knowledge or the threat's immediacy played only minor roles in determining Fargo's reaction to these threats.

The most significant factor in Fargo's varied responses to the flood and civil defense in 1962 was the degree of responsibility adopted by city leaders. As the Red River rose, Fargoans could not rely on federal, state, or county authorities to save their city; rather, Fargo's own citizens and resources were the key to protection. Considering this, Fargo's government bore one part of the responsibility for flood preparations while residents and local businesses bore the other part. The commissioners, acting through Lashkowitz and Brekke, were responsible for organizing local assets, allocating their use, and attaining

³⁵³ *On the Beach* envisions a world where nuclear warfare and fallout have eradicated humanity in the northern hemisphere, and survivors in Australia watch helplessly as the radioactive clouds slowly but surely spread throughout the rest of the world. In the end, each character chooses suicide over the slow death of radiation poisoning.

county and state assistance if the need arose. Fargoans were responsible for supplying resources to the flood fight, such as sandbags and transportation, as well as the manpower to fill sandbags and erect flood dikes. Protection from the Red River's floodwaters required both civilian and government contributions, and both actors embraced their respective duties in the spring of 1962.

The same cannot be said of Fargo's response to the Berlin Crisis, primarily because city officials assumed little responsibility for civil defense measures. The North Dakota Plan and Kennedy's NFSS offered contradictory guidance on the role of city governments in civil defense, and Fargo's leaders were unwilling to seize the initiative due to this confusion. The commissioners did not create a civil defense plan, nor did they prepare community fallout shelters or supplies to sustain residents in an emergency. If citizens wanted protection, they had to supply it themselves. Fargoans would maintain their own vehicles for evacuation (per the North Dakota Plan) and build their own fallout shelters (as advocated by the OCDM and the newly formed Office of Civil Defense). While it is difficult to know how seriously Fargoans viewed these responsibilities, they probably ignored them, like most American citizens did in the early 1960s.³⁵⁴ In contrast with the flood, where the sharing of responsibility made Fargo self-sufficient and ready to protect itself, the city government's abandonment of most civil defense duties, combined with the apathy of Fargo's populace, left the city defenseless when the Cuban Missile Crisis pushed the nation to the brink of nuclear war.

³⁵⁴ Mills, *Cold War...Cold Land*, 122-3; Rose, *One Nation Underground*, 191. A Gallup poll from September 1961 revealed that 93 percent of respondents had not "made any plans or given any serious thought to preparing [their] home in case of a nuclear attack."

Fargo During and After the Cuban Missile Crisis

The Cuban Missile Crisis brought the world to the brink of nuclear war in October 1962. Khrushchev, eager to gain political traction in Latin America and support Fidel Castro's communist enclave, ordered the construction of Soviet bases in Cuba, just 90 miles from the Florida coastline.³⁵⁵ When American spy planes identified the bases as housing nuclear-capable missiles, Kennedy deliberated with his advisors on the nation's options, including potential war with the Soviet Union. On October 22, Kennedy informed the American public of the missile threat, ordered a quarantine of Cuba, and heightened military readiness. Kennedy said nothing about civil defense during his address, but the crisis offered a litmus test of the nation's civil defense preparedness. Despite their support of Kennedy's decisions during the Cuban Missile Crisis, Fargo's residents and government refused to improve their civil defense readiness.

Fargoans responded to Kennedy's speech in a variety of ways but largely supported his handling of the situation. During Kennedy's address, many Fargoans gathered around television and radio sets in local businesses and listened silently as the nation edged closer toward conflict.³⁵⁶ One viewer at a local VFW club noted that "[y]ou could have heard a pin drop, it was that quiet" during Kennedy's speech and confessed to being "a little shaken" afterward.³⁵⁷ Other viewers supported Kennedy's response; a crowd of several dozen Fargoans in a hotel lobby broke into spontaneous applause afterward, while a worker at a downtown department store reported that viewers there "were with the President. They felt that what he recommended [was] necessary."³⁵⁸ While these residents supported Kennedy's decisions, which could have led to nuclear war, it seems that Fargoans took few preparatory

³⁵⁵ Mills, *Cold War...Cold Land*, 153-5.

³⁵⁶ "F-M Business Slows as President Speaks," *Fargo Forum*, October 23, 1962.

³⁵⁷ *Ibid.*

³⁵⁸ *Ibid.*

actions in response to the crisis. The *Fargo Forum* made no reports of residents stockpiling food and supplies, in contrast to the panic buying that ensued in other American cities; nor did many Fargoans contact civil defense offices for instructions on how they could protect their families.³⁵⁹ Likewise, there was no “noticeable flurry of men seeking to enlist” at military recruiting stations in Fargo.³⁶⁰ While residents understood the potential threat posed by the Cuban Missile Crisis and supported Kennedy’s response to Khrushchev’s gambit, they refused to let the situation disrupt their normal lives and remained unprepared for the nuclear consequences should diplomacy have failed.

City officials in Fargo mimicked their constituents by strongly supporting the president while taking little action to prepare for the possibility of nuclear war. On the day after Kennedy’s speech the city commissioners declared their support for Kennedy’s actions, affirmed their unity with the nation in confronting the crisis, and pledged Fargo’s “cooperation and assistance in the...furtherance of the President’s policy.”³⁶¹ Interestingly, the commissioners explained that in drafting the resolution, they were upholding their responsibilities “as patriotic Americans” in promoting the public good; however, the evidence suggests that those duties did not include protecting Fargo’s residents through civil defense measures.³⁶² In the following weeks, city leaders neglected to discuss how Fargo could safeguard itself if war broke out, nor did they encourage citizens to build fallout shelters or stockpile supplies. Instead, the commissioners simply re-established a chain of command for emergencies (which they were supposed to have done the previous October after the Berlin Crisis) and appointed Lashkowitz as the point of contact with state

³⁵⁹ Rose, *One Nation Underground*, 198-200.

³⁶⁰ “Status of Military Here Unchanged, Units Say,” *Fargo Forum*, October 23, 1962.

³⁶¹ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Oct. 23, 1962, mss. 42, box 23, folder 6, p. 1985, NDIRS.

³⁶² *Ibid.*

and county governments.³⁶³ Fargo's leaders left the responsibility for civil defense in the hands of their constituents, which virtually guaranteed that Fargo was unprepared for any future crises.

In the eighteen months after the Cuban Missile Crisis, Fargo's commissioners rarely discussed civil defense measures or their implementation in the community. Their meetings focused on Fargo's continued expansion, urban renewal, and city maintenance (issuing permits and licenses, providing services, etc.). City officials discussed civil defense matters on a handful of occasions, but these were limited to requests for cash reimbursements and surplus equipment (which was supposedly available through state and federal programs), and the city's participation in an experimental shelter survey in 1964. An analysis of these decisions reveals that the Board of Commissioners pursued these measures as cost-saving devices rather than actual improvements to Fargo's civil defense.

First, Fargo leaders discussed how they might attain outside assistance under the guise of civil defense. About one year before the Cuban Missile Crisis, the city had applied for compensation from civil defense authorities to cover the cost of a radio installed in the fire department's recently purchased pumper truck.³⁶⁴ However, they not only failed to receive the requested money, but did not even receive a response from the OCD.³⁶⁵

Frustrated by this inaction, the commissioners discussed the matter at a December 1962

³⁶³ "City Board Backs JFK," *Fargo Forum*, October 23, 1962; Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Oct. 17, 1961, mss. 42, box 23, folder 3, p. 1447-8, NDIRS.

³⁶⁴ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Dec. 11, 1962, mss. 42, box 23, folder 6, p. 2053, NDIRS.

³⁶⁵ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Jan. 8, 1963, mss. 42, box 24, folder 1, p. 2083, NDIRS. Colonel Carlson later offered several explanations for the city's lack of success. First, they may have used the wrong procedure by appealing directly to state or federal organizations; instead, their request needed to go through the Cass County civil defense office. Second, the transition from the OCDM to the OCD under the Department of Defense delayed many such projects. Third, Kennedy's NFSS had taken precedence over other projects throughout 1962 when Fargo made its request.

meeting and decided to formally contact Directors Carlson and Caverly to gain their assistance with the radio request, along with compensation for oxygen packs and mobile sirens for the Fargo Fire Department. It is somewhat difficult to view these items as civil defense purchases because they would not markedly improve the city's readiness; an additional fire truck would make little difference in a nuclear attack, especially if city leaders lacked a comprehensive plan for its use. Furthermore, when other North Dakota municipalities requested federal aid for civil defense, they generally sought improvements specifically geared toward nuclear threats. State Representative Hjalmar Nygaard (R) requested the inclusion of fallout shelters in federal buildings in Bismarck; Aneta sought radiological detection equipment; Woodworth wanted CBN masks (which offered protection against Chemical, Biological, and Nuclear threats) and atropine injectors (to counteract nerve gas); and Tolna sought guidance on constructing fallout shelter spaces in public schools.³⁶⁶ Fargo requested no such items geared toward civil defense, but sought items that could conveniently be used for general emergency purposes.

The commissioners' requests are better viewed as cost-saving measures rather than investments in civil defense. As stated earlier, Fargo was experiencing an expensive growth spurt during the Berlin and Cuban Missile Crises, and its government needed to stabilize finances by cutting costs wherever possible. Funding cuts frequently occurred in Fargo's budgets from FY1962 to FY1965 as many city departments saw their funding fall below their requested appropriations. For example, the fire department consistently received \$20,000-\$40,000 less than requested during this time frame, including one year in which

³⁶⁶ Hjalmar C. Nygaard to Frank B. Ellis, November 17, 1961, Hjalmar Nygaard Papers, box 59, folder 9; Hjalmar C. Nygaard to Robert W. Carlson, February 13, 1962, Hjalmar Nygaard Papers, box 59, folder 9; Hjalmar C. Nygaard to Steuart L. Pittman, November 23, 1962, Hjalmar Nygaard Papers, box 59, folder 9; William P. Durkee to Hjalmar C. Nygaard, March 12, 1963, Hjalmar Nygaard Papers, box 59, folder 9.

the city cut nearly \$100,000 from its proposed budget.³⁶⁷ Budget considerations also forced the commissioners to change their plans for the construction of a new fire station on the city's west side. They originally planned to build the station in 1963 and purchase its vehicles in the following year, but they could not afford to pay the new fire crews in 1963; to remedy the situation, the city reversed these actions in hopes that "the new station can be built [in 1964]."³⁶⁸ Considering the fire department's budgetary constraints, it is not surprising that they would have been the main beneficiary of the city's request for equipment from civil defense sources. The radio and sirens were installed in a fire truck, while oxygen tanks are part of the standard firefighter's kit. Since the fire department was unable to secure city funding for these needs, they tried to obtain these items from outside civil defense organizations.

The Fargo Fire Department was not alone in its attempt to exploit civil defense. When the commission contacted Directors Carlson and Caverly about firefighting equipment, they also asked about obtaining surplus vehicles and other items through civil defense programs. The phrasing of the December 11 meeting minutes suggests that Fargo planned to acquire surplus items for purposes other than civil defense. Commissioner John W. Markey recommended that "all City Departments...see what equipment could be readily used in their Departments *which may be available through Civil Defense*" (emphasis added).³⁶⁹ The records made no mention of specific civil defense purposes for these items.

³⁶⁷ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, July 26, 1961, mss. 42, box 24, folder 7, p. 1298, NDIRS; Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, July 25, 1962, mss. 42, box 24, folder 7, p. 1859, NDIRS; Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, July 24, 1963, mss. 42, box 24, folder 7, p. 2327, NDIRS; Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, July 22, 1964, mss. 42, box 24, folder 7, p. 2842, NDIRS.

³⁶⁸ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Apr. 23, 1963, mss. 42, box 24, folder 1, p. 2190, NDIRS.

³⁶⁹ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Dec. 11, 1962, mss. 42, box 23, folder 6, p. 2053, NDIRS.

Instead, Markey viewed the surplus program as a proverbial “Lost and Found box” for Fargo’s government and felt that the city could make use of them in its regular operations. Some departments had little involvement in civil defense measures, yet all were urged to consider whether the surplus equipment could help them fulfill their duties. The commission authorized Markey to inquire about the surplus items and express “the City’s concern that it is not realizing its share of equipment which is regarded as surplus equipment” from outside civil defense authorities.³⁷⁰ Ultimately, they were unsuccessful in acquiring these items, partly because the requests came from the Fargo Fire Department (for the radio, air tanks, and sirens) or city commission (for the surplus items) rather than its civil defense officials, which further suggests that their efforts did not originate from a desire to meet civil defense needs. Instead, cost concerns motivated the city’s request for surplus equipment from civil defense organizations. City leaders saw an opportunity to secure useful resources for the city’s growing needs and shamelessly pursued their acquisition under the veil of strengthening civil defense.

More than a year passed before Fargo’s commissioners returned to the topic of civil defense in the fall of 1964, but this was the work of outside agents rather than any homegrown initiative, and financial concerns again shaped the city’s response. On August 4, 1964, Commissioner John E. Korsmo informed city leaders of the Community Shelter Planning Program, a federally funded survey of available shelters in 50 American cities, including the Fargo-Moorhead area.³⁷¹ Conducted by the Stanford Research Institute, the study compared existing shelters with population densities to identify areas that needed more shelter capacity and inform citizens of where they could go during a nuclear alert.

³⁷⁰ Ibid.

³⁷¹ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Aug. 4, 1964, mss. 42, box 24, folder 7, p. 2853, NDIRS.

Civil defense leaders, including Directors Carlson and Caverly, and Frank Bales of the OCD's Region VI office in Denver, hoped the study would persuade Congress to contribute funds toward the construction of community fallout shelters across the nation.³⁷² They met with the city commissioners to secure approval for Fargo's participation in the study.

During this discussion, the commissioners repeatedly expressed concern over the city's financial obligation if they participated in this initiative. As Korsmo introduced the proposal to the commission, he specifically noted that "all the City has to do is cooperate and there will be no financial commitment on the part of the City."³⁷³ He further recommended that the city send a representative to a Denver workshop to gain more information, especially since Fargo would not have to pay for their attendance. Director Carlson also encouraged the commission to send someone to Denver, again emphasizing that the city bore no financial obligation. Despite these assurances, the commission remained suspicious. Commissioner John A. Oakey questioned whether the city would be liable for paying outside surveyors during the study, and the city attorney asked if the city would have to pay for anything first before being reimbursed later, perhaps remembering earlier difficulties in securing federal compensation for the fire department. Only after further assurances that Fargo bore no financial responsibility did the commission agree to send four officials to the meeting. At no point did city officials discuss the study's merits or its contributions toward Fargo's civil defense readiness; instead, they returned again and again to their concerns about potential financial obligations.

This was still the case when city officials returned from Denver with additional details about the survey's intentions and timeline. During this discussion, Lashkowitz

³⁷² Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Aug. 25, 1964, mss. 42, box 24, folder 7, p. 2889-2890, NDIRS.

³⁷³ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Aug. 4, 1964, mss. 42, box 24, folder 7, p. 2853, NDIRS.

again questioned whether “there would be any financial involvement on the part of the City.”³⁷⁴ At this point it was conceded that Fargo might need to inform residents about shelter locations by printing maps in local telephone books, which would impose minor costs on the city.³⁷⁵ Having examined the proposed contract, the city attorney agreed that the study would not require any additional expense from Fargo’s government. Again, cost concerns guided the commissioners’ consideration of the shelter plan, and they were unwilling to invest money into another civil defense initiative. Their miserly attitude likely resulted from the city’s increased expenses as its population continued to rise in 1964.³⁷⁶ Fargo’s government only had so much money to spend, so they focused on critical needs rather than civil defense.

The commission finally agreed to cooperate with the Stanford Research Institute, but with one major caveat: the city would not directly participate in the study. Instead, they authorized neighboring Moorhead to act as a “contracting agency” in Fargo’s stead since the city lacked a “full-time Planning Consultant or Engineer” to facilitate the survey.³⁷⁷ It is unclear as to why this vacancy would hinder Fargo’s participation in the study, or how working through Moorhead’s planning commission alleviated the situation. The Community Shelter Planning Program required little involvement from Fargo’s government aside from providing city records and census data to the surveyors, but this data was needed whether Fargo acted on its own or subcontracted through Moorhead. It is possible that Fargo’s

³⁷⁴ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Aug. 25, 1964, mss. 42, box 24, folder 7, p. 2889-2890, NDIRS.

³⁷⁵ Ibid.

³⁷⁶ U.S. Department of Commerce, Bureau of the Census, *Eighteenth Census: 1960*, Vol. 1, Part 36-11, accessed December 10, 2021, <https://www2.census.gov/library/publications/decennial/1960/population-pc-p1/15611091ch2.pdf>

³⁷⁷ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Aug. 25, 1964, mss. 42, box 24, folder 7, p. 2889-2890, NDIRS.

commissioners simply wanted to have nothing to do with a metropolitan civil defense plan, but if that were the case, they should have rejected the study altogether.

Alternatively, they may have feared what would happen when the survey revealed the inadequacy of Fargo's shelter supply. At the time, the city possessed one fallout shelter for every 500 residents, far too few for practical protection from a nuclear attack.³⁷⁸ One of the study's goals was the identification of "deficit areas" that lacked sufficient shelters and which "steps should be taken for alleviating these deficiencies"; perhaps the commissioners worried that they would be responsible for providing shelter spaces in "deficit areas" and incur the costs of their construction.³⁷⁹ Outside funding was unlikely, for while Congress had funded the identification, marking, and partial stocking of existing spaces under the NFSS, they still refused to fund a nationwide shelter construction program.³⁸⁰ Fargo's government did not want to pay for additional civil defense measures, but perhaps they could hide their city's shortcomings if the Stanford Research Institute assessed the Fargo-Moorhead metropolitan area as a whole rather than separating Fargo, which had done little to augment its civil defense, from Moorhead, which was involved in Clay County's civil defense revival. This arrangement allowed Fargo to piggyback off Moorhead's improvements and avoid both the responsibility for civil defense and its correlated financial obligations.

³⁷⁸ Fargo's population 1960 was 46,491, while Cass County Civil Defense Director Caverly reported that Fargo had 92 fallout shelters in 1964. It is unclear whether these were public or private shelters. Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Aug. 25, 1964, mss. 42, box 24, folder 7, p. 2889-2890, NDIRS. U.S. Department of Commerce, Bureau of the Census, *Eighteenth Census: 1960*, Vol. 1, Part 36-11, accessed December 10, 2021, <https://www2.census.gov/library/publications/decennial/1960/population-pc-p1/15611091ch2.pdf>

³⁷⁹ Proceedings of the Board of City Commissioners of the City of Fargo, North Dakota, Aug. 25, 1964, mss. 42, box 24, folder 7, p. 2889-2890, NDIRS.

³⁸⁰ Fehr, "Sheltering Society," 327-330.

Fargo may have done little to improve its civil defense in response to the Cuban Missile Crisis, but the same cannot be said of the region overall. North Dakota's state government and leaders in neighboring Clay County and Moorhead responded to the Cuban Missile Crisis by improving their civil defense readiness. As Fargo largely delegated responsibility to its citizens (who seemed to do very little with it), neighboring authorities accepted a role in civil defense and worked to protect their constituents. A brief examination of the latter's actions illustrates this contrast and suggests what Fargo's leaders might have done if they had accepted any responsibility for civil defense.

Under Governor Guy's leadership, North Dakota's government embraced its civil defense duties as outlined in the North Dakota Plan of 1960, which tasked the state with coordinating local relief efforts and maintaining statewide communications. Soon after Kennedy's speech on the Cuban Missile Crisis, Guy directed state officials to hold a "statewide, practice civil defense exercise" on the following Monday.³⁸¹ The alert largely consisted of equipment checks and the testing of communications protocols, but Director Carlson was apparently satisfied with the results even though many North Dakotan counties lacked sufficient shelter space for their populations.³⁸² Guy further directed state departments to review their civil defense protocols while he met with fellow governors in Washington, D.C. to discuss how they could quickly protect their constituents. Even after the Cuban Missile Crisis ended, Guy pushed for an improved civil defense by accepting the conference's recommendations for the continued construction and stocking of fallout shelters.³⁸³ The North Dakota Plan gave limited responsibilities to the state for civil defense, but Guy fully embraced this role in civil defense preparedness.

³⁸¹ "Guy Orders CD Alert for Monday," *Fargo Forum*, Oct. 23, 1962.

³⁸² Mills, *Cold War...Cold Land*, 160.

³⁸³ "Guy Cites Need to Beef-Up Civil Defense," *Fargo Forum*, Oct. 30, 1962; Department of

Officials in Clay County, Minnesota similarly responded to the Cuban Missile Crisis by taking ownership of civil defense operations. Roy V. Aune, director of the Minnesota Department of Civil Defense, ordered the state's 830 civil defense units to "review their readiness posture" two days after Kennedy's speech, though he did not issue any practice alerts at the time.³⁸⁴ Minnesota was better prepared for the Cuban Missile Crisis because it possessed sufficient shelter space for 40% of its population, though it is unclear as to whether these spaces were stocked or marked.³⁸⁵ Despite these advances, millions of Minnesotans still lacked protection from a nuclear attack, including many in Clay County, where Moorhead is located. On October 27, 1962, county and municipal officials assessed their civil defense readiness and learned that local preparations were inadequate.³⁸⁶ Clay County had been one of the first counties to develop an evacuation plan in the late 1950s but found itself disorganized and lacking "effectively trained and equipped service units" to deal with the new hazards associated with the hydrogen bomb.³⁸⁷ None of the eight communities represented at the meeting possessed official plans for a nuclear emergency, and Moorhead had only 40 fallout shelters, which likely lacked the food, water, and medicine needed to sustain inhabitants for two weeks.³⁸⁸ A lack of leadership contributed to the county's disarray, as less than one quarter of the county officials tasked with emergency civil defense programs even attended the meeting.

Defense, Office of Civil Defense, *Six-Point Accelerated CD Program Described to State, Local Officials* (Washington, D.C.: Department of Defense, Office of Civil Defense, 1962), 7.

³⁸⁴ "Cuban Crisis Alerts CD in Minnesota," *Fargo Forum*, Oct. 24, 1962.

³⁸⁵ "Fallout Shelter Available For 40% of Minnesotans," *Fargo Forum*, Oct. 24, 1962.

³⁸⁶ "Clay Group Meets: Block-by-Block Program of Civil Defense Urged," *Fargo Forum*, Oct. 28, 1962.

³⁸⁷ *Ibid.*

³⁸⁸ Representatives from Moorhead, Dilworth, Barnesville, Glyndon, Hawley, Felton, Ulen, and Hitterdal attended the meeting.

Like Fargo, Moorhead and Clay County were caught off guard by the Cuban Missile Crisis; however, while Fargo's leaders gave only a nominal response, their Minnesotan neighbors moved to redress their deficiencies. Officials at the civil defense meeting could not wait for the federal government or the NFSS to protect them from Cuban-based missiles, as they had not been told which buildings held suitable shelter spaces.³⁸⁹ Regardless, they refused to leave their communities unprotected and started working on new county and city plans for critical needs, such as emergency rescue operations, the provision of essential supplies, communication protocols, and worker organization. Furthermore, they scheduled additional meetings to coordinate civil defense improvements across the county and address needs identified at the October 28 meeting, such as where students should go if an alert occurred during the school day. Despite their inaction prior to 1962, leaders in Clay County accepted some responsibility for their constituents' protection and worked to improve their civil defense programs in response to the Cuban Missile Crisis.

Officials in Clay County did not take on the full responsibility for civil defense, for they also called upon constituents to take ownership of their protection. John Mandsager, chairman of the county commission, demanded that "[r]esidents of every block in every village and city" participate in the effort by electing block leaders, who would educate their neighbors on their role in civil defense plans.³⁹⁰ He believed this was the quickest path toward an effective program of civil defense and encouraged the full participation of every Clay County resident in making it happen. Individual involvement was crucial to the county's response because they anticipated the isolation of local communities after a nuclear attack, and few local governments possessed adequate resources to meet their own needs for extended periods of time. This issue is like the volunteer fire departments

³⁸⁹ Ibid.

³⁹⁰ Ibid.

common to most small towns, as they lack the resources to hire full-time emergency crews and therefore rely on private individuals to provide firefighting services. In the same manner, citizens were asked to contribute their skills, time, and resources to help their neighbors recover from a nuclear disaster. By mobilizing citizens in the push for civil defense, Clay County would provide its own civil defense protection.

Moorhead, Clay County, and Governor Guy took civil defense seriously and worked to improve their readiness in the aftermath of the Cuban Missile Crisis, but Fargo largely ignored the matter. Instead, Fargo's government focused on the mundane concerns common to city governance and only considered civil defense when they were directly approached by outside agencies or offered financial or material benefits. Fargo's leaders did not devise a workable plan for civil defense, take steps toward its implementation, or encourage residents to protect their families. Likewise, Fargoans largely refused to accept responsibility for civil defense, leaving themselves and their community exposed to Soviet attack. Fortunately, these vulnerabilities were never tested by a nuclear war, but due to the inaction of Fargo's government and residents, the city remained defenseless against nuclear attack.

Conclusion

Kennedy's presidency could have marked a turning point in civil defense, for he wanted the federal government to bear its fair share of responsibility in protecting American citizens from nuclear war. He initiated the NFSS, which identified more than 92,000 shelter spaces in North Dakota, and acquired federal funding to support the marking and stocking of these shelters.³⁹¹ He also invited the American people to participate in their own protection by building family fallout shelters or identifying which

³⁹¹ Steuart L. Pittman to Hjalmar C. Nygaard, January 2, 1963, Hjalmar Nygaard Papers, box 59, folder 9.

community shelters they could use in a civil defense alert. If all went according to plan, the nation would finally have the insurance it needed against a nuclear attack; however, Kennedy's plan failed for a variety of reasons, including public apathy, the questionable morality of personal fallout shelters, disagreement over civil defense's utility, and weakened congressional support.³⁹²

Fargo's experience reveals that a city's response was another reason for Kennedy's failure to revive civil defense. Fargo's government refused to protect its citizens due to financial concerns and an unwillingness to accept any substantial responsibility for civil defense. Instead, they waited for the NFSS to provide community shelters and expected citizens to provide their own supplies, transportation for evacuation, and fallout shelters. The result was little progress toward civil defense during Kennedy's presidency, but this stemmed from a lack of will rather than a lack of ability. The city's flood preparations, together with the actions of neighboring communities, show that Fargo could have established a functional civil defense if it wanted to do so. Fargoans could have filled some of this void by participating in civil defense training and constructing family shelters, but the evidence suggests that few residents chose to take civil defense seriously. Ultimately, Fargo's leaders (and to a lesser extent, its citizens) rejected Kennedy's path toward civil defense and ensured that the city remained vulnerable.

³⁹² Fehr, "Sheltering Society," 321-3; 330.

CONCLUSION

Despite the expenditure of millions of dollars and considerable time and effort, civil defense largely failed to take hold in the 1950s and 1960s. As Holifield feared, the nation's civil defense could not protect its citizens during the Berlin and Cuban Missile Crises and did not improve markedly in the immediate aftermath of those hostilities. Since the American people chose not to embrace civil defense measures voluntarily, they remained vulnerable to a nuclear holocaust. Fargo's experience during this era offers a useful case study on the limits of relying upon local government and individuals to enact policies for the public's welfare.

In the early 1950s, federal and state civil defense organizations released a variety of publications to engage civilians in protective measures. They told citizens that the atomic bomb posed a significant hazard to American lives and property but presented these threats as little different from the conventional bombs that destroyed cities during World War II. Civilians had survived that destruction through preparation, knowledge, and action, and Americans could likewise protect themselves by following the simple and effective recommendations provided by civil defense groups. Fargo responded with a well-intended but flawed civil defense plan. The city government recruited local leaders to manage key resources within the community, organized block wardens to oversee preparations within their neighborhoods, and asked residents to learn emergency skills that would be needed if nuclear war approached Fargo's borders. However, residents largely ignored these pleas, and many volunteers later resigned their posts or did not own up to their responsibilities. While the city made some strides toward protection, such as the installation of air raid sirens, it did not achieve an effective, homegrown civil defense readiness.

The hydrogen bomb's immense power reduced Fargo's civil defense readiness, as the recommended measures proved incapable of protecting people from thermonuclear warfare.

Although the FCDA was quick to adopt an evacuation policy, this too proved untenable due to the radioactive fallout produced by the hydrogen bomb. These developments set off a flurry of congressional hearings and private assessments on what could be done to protect the American people from enemy attack. While these inquiries varied in their recommendations, they generally agreed that the federal government, not local communities, needed to bear greater responsibility for civil defense. Only Congress possessed the financial means and influence to construct fallout shelters to improve the nation's survivability. However, Eisenhower and Congress refused to take on this task. The short-lived OCDM followed a familiar pattern: research shelter options and encourage civilians to provide their own civil defense through family fallout shelters. Yet these appeals largely fell on deaf ears and few shelters were built.

The early 1960s seemed like the perfect storm for establishing an effective civil defense in Fargo. The Berlin and Cuban Missile Crises revealed the need for protection and could have spurred a lethargic population into action, while Kennedy's NFSS marked a major increase in federal responsibility for civil defense. However, these failed to stimulate a significant response in Fargo, which needed to fill the gap until the NFSS came to fruition. Financial limitations and indifference prevented its governing body from pursuing civil defense with much enthusiasm, and what limited action it did take was motivated by desires other than improving Fargo's defensive readiness. Likewise, Fargoans generally made little effort to prepare themselves for a nuclear conflict, nor did they demand city officials to pay greater attention to civil defense. Fargo's rapid and united response to the flood of 1962 showed the city's capacity to protect itself against an external threat while also emphasizing how little it cared about civil defense. While Kennedy's flagging support for civil defense hindered Fargo's preparations, the unwillingness of Fargoans (both private

and government) to bear responsibility for their own protection drove the final nail into the coffin of the city's civil defense.

The optimist may see no problem with the failure of American civil defense, as nuclear war has yet to breach America's borders and impose its grisly cost on our society. However, the pessimist may well point out that a core debate over civil defense, the question of who was responsible for its implementation, is still quite relevant today and continues to complicate, limit, and imperil policies meant to safeguard the America people. Policymakers continually argue over the best method for protecting American citizens and promoting the public's welfare; should the federal government take direct control over the implementation of certain policies, or might these matters be best left in the hands of individuals? Many points of contention among the nation's political leaders, and its citizens to some extent, involve disagreements over who bears the responsibility for some noble goal (promoting economic growth, paying for college, and providing basic services come to mind). Recent memory offers several instances where this question divided national leaders and the people they represented.

Consider Republican efforts to privatize social security during the second Bush administration; Republican leaders sought the dismantlement of a financial safety net that millions of Americans rely upon for their basic needs, partially under claims that private investment and retirement accounts were more effective at ensuring financial stability for elderly Americans. Supporters believed individuals could fend for themselves, while Democrats argued that many citizens lacked the resources to provide their own security and that the federal government had a responsibility to intervene on their behalf. The nation did not divide itself over the idea of providing for the needs of elderly citizens, but rather over how best to achieve that end.

Or consider the donnybrook over the Affordable Care Act (better known as Obamacare), both leading up to and since its passage in 2010. Liberal leaders wanted to guarantee access to healthcare by expanding the federal and state governments' role in its provision, while conservative opponents believed that free markets and private insurance were the best way to ensure adequate medical coverage for the American people. Here again, few disagreed with the idea that healthcare was important for people to have; what they disagreed about was how people acquired medical insurance and who bore the financial cost of insurance premiums. At its root, this debate again revolved around the matter of whether healthcare coverage was best attained by individuals making their own decisions, or by government intervention to ensure fair practices and equal opportunity.

The COVID-19 Pandemic offers perhaps the most significant recent example of how disputed divisions of responsibility affected the nation's response to an imminent threat. Political and medical authorities disagreed on the best ways to protect citizens against COVID-19 and limit its impact on society, but what emerged was a combination of social distancing, mask restrictions, societal lockdowns, and vaccine mandates. Though the exact application, enforcement, and effectiveness of these measures were subject to variations in geography, political leaning, and economic priorities, their enactment (or lack thereof, depending on the situation) bears some striking similarities to civil defense practices in the first two decades of the Cold War.

As this thesis has shown, the responsibility for civil defense was shared between private individuals and federal, state, and local governments. Governing bodies, especially at the national and state levels, conducted research on the effects of atomic weapons, devised and tested protective measures, and communicated their findings to the American public. They also provided limited funding and material assistance in bringing civil defense efforts to fruition, but the burden of practical action rested upon the shoulders of

individuals and local government in Fargo and other communities. The nation's COVID-19 response mimicked this division of responsibility. The federal government again focused on researching the virus, facilitating the development and utilization of a vaccine, and advised citizens on best practices to limit the spread and potency of the coronavirus. In contrast with the days of civil defense, state and local governments took more of a 'boots on the ground' approach in dealing with the pandemic by imposing mask mandates and closing points of high transmissibility, such as businesses and schools, as well as distributing information on virulence, positivity rates, vaccinations, and so on. This was distinctly different from the actions of Fargo's city government during the Kennedy administration, when they essentially dragged their feet and hoped that someone else would step into the breach to handle civil defense matters.

In both situations, however, individuals held the greater responsibility in meeting the threat. During the early Cold War, authorities expected citizens to protect themselves and their communities against the atomic bomb. Civil defense authorities asked individuals to learn about the nuclear threat and act by training in first aid skills, serving as a block warden, or building a family fallout shelter. They taught students to duck and cover and instructed homeowners to stockpile food, water, and other supplies in their basements. Kennedy tried to have the federal government take on a greater share of the burden, but ultimately citizens were largely responsible for their own fates. The same may be said for the nation's COVID-19 response in 2020-2021. Government and health authorities urged individuals to adopt social distancing and wear face masks to 'flatten the curve' and reduce the spread of the virus. Much of the nation's pandemic countermeasures relied on voluntary participation from millions of Americans; even the state and local governments that imposed strict limits on movement and social gatherings largely depended on the willingness of ordinary people to comply with emergency restrictions. Ultimately, health

experts and civil defense officials alike believed that the public held the key to victory over outside threats, whether they were nuclear or viral in nature. And that is why both efforts were less successful than desired.

A reliance on voluntary participation proved fatal to civil defense efforts, particularly in Fargo. Many Americans refused to participate in civil defense for a variety of reasons, ranging from apathetic attitudes to doubts over their feasibility to moral dilemmas over sharing emergency resources with unprepared neighbors.³⁹³ They simply did not accept responsibility for their own protection, nor did they see the need to cooperate with their community's civil defense plans. Fargo's experience supports this conclusion. In the early 1950s, the city's Civil Defense Committee could not recruit enough block wardens and other volunteers for civil defense training, and they experienced considerable turnover among committee members and Activity Group leaders. The result was a civil defense program that was only partially functional and of questionable value in the event of an atomic attack.

One decade later, Fargo was similarly vulnerable, though in this case the fault lay more with her government leaders than with her residents. Fargo's mayor and commissioners expected the federal government to provide for the city's civil defense and they proved unwilling to do much until that happened. Even as Cold War tensions peaked during the Berlin Crisis and the nation headed toward nuclear confrontation during the Cuban Missile Crisis, Fargo's government only showed lukewarm interest in preparing emergency plans and erecting the infrastructure necessary for their implementation. Fargoans likewise refused to mobilize themselves for the sake of civil defense and declined to prepare their homes or their community for Armageddon. Again, Fargo remained

³⁹³ Fehr, "Sheltering Society," 308-313. See Fehr's work for an insightful, if not brief, examination of the moral implications of individual civil defense preparations.

woefully unequipped to respond to a nuclear emergency, owing to the unwillingness of its residents and leaders to seize the initiative in providing their own security.

In a similar manner, a reliance on voluntary participation hampered the nation's response to the COVID-19 pandemic. American leaders largely ignored the lessons offered by civil defense's relative failure and again called upon individuals to willingly embrace protective measures. Granted, these efforts proved more successful in 2020 and many Americans joined the fight against COVID-19 by working from home, wearing face masks, and limiting face-to-face interactions with people outside their homes. Many factors may explain this deviation from what occurred during the Cold War, but I suggest that the different nature of each threat is significant; civil defense prepared for a hypothetical doomsday scenario during the Cold War, whereas Americans experienced the physical, mental, and emotional impacts associated with COVID-19 on a daily basis in 2020-2021, and therefore had greater motivation to participate in counter-pandemic measures. Even considering the support for individual responsibility, a significant portion of the American population refused to comply with the COVID-19 recommendations issued by government and health officials. Debates arose over the imposition of mask mandates in cities and school districts across the nation and intensified over proposed vaccination requirements. Some states and cities refused to impose quarantine measures or chose not to enforce them, adding to the breakdown in cohesion. Despite significant participation among the American public, a sizable element refused to partake in preventative measures, and their defiance hampered national efforts to manage and contain the COVID-19 pandemic. Similarly, American citizens, including Fargoans, generally refused to participate in civil defense during the Truman, Eisenhower, and Kennedy administrations. The result was an ineffective program that failed to achieve its objectives, largely due to the lack of support from the very civilians who were entrusted with this task. Current policymakers failed to

learn from the frustration of their civil defense forebearers, who saw individuals reject responsibility for protecting themselves and their country. This time, perhaps, they will learn that lesson.

BIBLIOGRAPHY

- “Berlin Poses Grim Threat to Peace.” *Fargo Forum* (Fargo, ND), June 25, 1961.
- Bird, Robert S., and Ogden R. Reid. “Defense Against A-Bomb Would Greatly Curtail Out Individual Liberties.” *Fargo Forum* (Fargo, ND) August 5, 1950.
- Blanchard, B. Wayne. “American Civil Defense 1945-1984: The Evolution of Programs and Policies.” Government Document, Emmitsburg, 1985.
- Bulletin of the Atomic Scientists. “Candor in Congress.” *Bulletin of the Atomic Scientists* 11, no. 5 (1955): 181-184.
- “Casper Is One Of 11 Filter Centers.” *Casper Tribune-Herald* (Casper, WY), March 8, 1951.
- “City Board Backs JFK.” *Fargo Forum* (Fargo, ND), October 23, 1962
- “Civil Defense Group Told of SAC Role.” *Fargo Forum* (Fargo, ND), June 7, 1961.
- “Church Group Urged to Aid in Disaster Preparedness.” *Fargo Forum* (Fargo, ND), July 14, 1961.
- “Clay Group Meets: Block-by-Block Program of Civil Defense Urged.” *Fargo Forum* (Fargo, ND), Oct. 28, 1962.
- Cohen, Lizabeth. *A Consumer’s Republic: The Politics of Mass Consumption in Postwar America*. New York: Vintage Books, 2004.
- Committee on Appropriations. *The Supplemental Appropriation Bill: Hearings before , Subcommittees of the Committee on Appropriations*. Washington, D.C.: United States Government Printing Office, 1954.
- “Communities Look to Congress for Essential of Civil Defense – Money.” *Fargo Forum* (Fargo, ND), July 26, 1961.
- Craig, Campbell and Fredrik Logevall. *America’s Cold War: The Politics of Insecurity*. Cambridge: Belknap Press, 2020.
- “Cuban Crisis Alerts CD in Minnesota.” *Fargo Forum* (Fargo, ND), Oct. 24, 1962.
- Davis, Tracy C. *Stages of Emergency: Cold War Nuclear Civil Defense*. Durham: Duke University Press, 2007.
- “Dedication of Fallout Shelter Set.” *Fargo Forum* (Fargo, ND), May 26, 1961.
- Executive Office of the President, National Security Resources Board, Civil Defense Office. *Survival Under Atomic Attack*. Washington, D.C.: Government Printing Office, 1950.

Executive Office of the President, National Security Resources Board. Civil Defense Office. *United States Civil Defense*. Washington, D.C.: Government Printing Office, 1950.

Fabry, Merrill. "What the First H-Bomb Test Looked Like." *Time*. Time Magazine, November 2, 2015. <https://time.com/4096424/ivy-mike-history/>

"Fallout Shelter." *Fargo Forum* (Fargo, ND), May 28, 1961.

"Fallout Shelter Available For 40% of Minnesotans." *Fargo Forum* (Fargo, ND), Oct. 24, 1962.

Fargo City Commission Minutes, North Dakota Institute for Regional Studies, North Dakota State University, Fargo.

"Fargo Civil Defense Workers Get Instruction on Duties." *Fargo Forum* (Fargo, ND) November 30, 1950.

"Fargo to Ask Civil Defense Funds for Traffic System" *Fargo Forum* (Fargo, ND), June 14, 1961.

Federal Civil Defense Administration, *Facts about Fallout*. Washington, D.C.: U.S. Government Printing Office, 1955.

Federal Civil Defense Administration, *Facts About the H-Bomb*. Washington, D.C.: U.S. Government Printing Office, 1955.

Federal Civil Defense Administration, *4 Wheels to Survival: Your Car and Civil Defense*. Washington, D.C.: U.S. Government Printing Office, 1955.

Fehr, Kregg Michael. "Sheltering Society: Civil Defense in the United States, 1945-1963." Doctoral dissertation, Texas Tech University, 1999.

"F-M Business Slows as President Speaks." *Fargo Forum* (Fargo, ND), October 23, 1962.

Fozzy, Paula. "Fallout Shelters: Interest Grows." *Bulletin of the Atomic Scientists* 17, no. 10 (1961): 439-441.

"Guy Cites Need to Beef-Up Civil Defense." *Fargo Forum* (Fargo, ND), Oct. 30, 1962

"Guy Orders CD Alert for Monday." *Fargo Forum* (Fargo, ND), Oct. 23, 1962.

"Guy Orders Shoring Up of Civil Defense in N.D." *Fargo Forum* (Fargo, ND), August 23, 1961.

Hjalmar Nygaard Papers, North Dakota Institute for Regional Studies, North Dakota State University, Fargo.

- John F. Kennedy, "President Kennedy's Special Message to the Congress on Urgent National Needs, May 25, 1961." John F. Kennedy Presidential Library, accessed December 10, 2021, http://www.jfklibrary.org/Research/Research-Aids/JFK-Speeches/United-States-Congress-Special-Message_19610525.aspx
- John F. Kennedy, "Radio and Television Report to the American People on the Berlin Crisis, July 25, 1961." John F. Kennedy Presidential Library, accessed December 10, 2021, <https://www.jfklibrary.org/archives/other-resources/john-f-kennedy-speeches/berlin-crisis-19610725>
- Kerr, Thomas J. *Civil Defense in the U.S.: Bandaid for a Holocaust?* Boulder: Westview Press, 1983.
- Lapp, Ralph E. "An Interview with Governor Val Peterson." *Bulletin of the Atomic Scientists* 10, no. 10 (1954): 375-377.
- Lapp, Ralph E. "Civil Defense Faces New Peril." *Bulletin of the Atomic Scientists* 10, no. 9 (1954): 349-351.
- Lapp, Ralph E. "Fall-out and Candor." *Bulletin of the Atomic Scientists* 11, no. 5 (1955): 170, 200.
- Lapp, Ralph E. "Fallout and Home Defense." *Bulletin of the Atomic Scientists* 15, no. 5 (1959): 187-191.
- Lapp, Ralph E. "Radioactive Fallout." *Bulletin of the Atomic Scientists* 11, no. 2 (1955): 45-51.
- Leffler, Melvyn P. *For the Soul of Mankind: The United States, the Soviet Union, and the Cold War*. New York: Hill and Wang, 2008.
- Maloney, Sean M. *Emergency War Plan: The American Doomsday Machine, 1945-1960*. Lincoln: Potomac Books, 2021.
- "Many Believe Citizens Will Refuse to Spend for Civil Defense Needs." *Fargo Forum* (Fargo, ND), July 1, 1961.
- May, Elaine Tyler. *Homeward Bound: American Families in the Cold War Era*. New York: Basic Books, 1999.
- Mills, David W. *Cold War in a Cold Land: Fighting Communism on the Northern Plains*. Norman: University of Oklahoma Press, 2015.
- Monson, Donald. "Is Dispersal Obsolete." *Bulletin of the Atomic Scientists* 10, no. 10 (1954): 378-383.
- North Dakota Civil Defense Agency, *The North Dakota Plan: How You Will Survive*. Bismarck, ND: North Dakota Civil Defense Agency, 1960.

- Oakes, Guy. *The Imaginary War*. New York: Oxford University Press, 1995.
- Office of Civil and Defense Mobilization, *The Family Fallout Shelter*. Battle Creek, MI: Office of Civil and Defense Mobilization, 1959.
- “Pamphlet Offers Ideas for a Fallout Shelter.” *Fargo Forum* (Fargo, ND), July 31, 1961.
- Peihl, Mark. “Clay County and the Bomb – Civil Defense in the Cold War and Backyard Bunkers.” *The Hourglass: Historical and Cultural Society of Clay County Newsletter* 2, no. 4 (2010): 8-11.
- President Frederic Samuel Hultz Papers, 1948-1961, North Dakota State University Archives, Fargo, North Dakota.
- The Public and Parochial Schools, District of Columbia. *Attitudes and Behavior for Civil Defense: ABC's for Civilians*. Washington, D.C.: Government of the District of Columbia, 1951.
- Ropeik, David. “How the Unlucky Lucky Dragon Birthed an Era of Nuclear Fear.” *The Bulletin*. *Bulletin of the Atomic Scientists*, February 28, 2018.
<https://thebulletin.org/2018/02/how-the-unlucky-lucky-dragon-birtherd-an-era-of-nuclear-fear/>
- Rose, Kenneth. *One Nation Underground: The Fallout Shelter in American Culture*. New York: New York University Press, 2001.
- Scheibach, Michael. *“In Case Atom Bombs Fall”: An Anthology of Governmental Explanations, Instructions and Warnings from the 1940s to the 1960s*. Jefferson, NC: McFarland & Company, 2009.
- Security Resources Panel of the Science Advisory Committee. “Deterrence and Survival in the Nuclear Age.” Report, Washington, D.C., 1957.
- Simpson, Mary M. “A Long Hard Look at Civil Defense: A Review of the Holifield Hearings.” *Bulletin of the Atomic Scientists* 12, no. 9 (1956): 343-348.
- “Speakers Set For Workshop At MSC On Civil Defense.” *Fargo Forum* (Fargo, ND), June 4, 1961.
- “Status of Military Here Unchanged, Units Say.” *Fargo Forum* (Fargo, ND), October 23, 1962.
- “Subsidy for Shelters.” *Minneapolis Morning Tribune* (Minneapolis, MN), Dec. 16, 1961.
- “Touissant is Appointed to Head Fargo’s Civil Defense.” *Fargo Forum* (Fargo, ND) August, 1950.
- “20 Pumps on Way Here To Combat Basement Water.” *Fargo Forum* (Fargo, ND) April 15, 1952.

- “Unit Formed By Aandahl.” *Fargo Forum* (Fargo, ND) August 9, 1950.
- United States Department of Commerce, Bureau of the Census, *1960 Census of the Population: Preliminary Reports*. U.S. Department of Commerce, accessed December 10, 2021, <https://www2.census.gov/library/publications/decennial/1960/population-pc-p1/15611091ch2.pdf>
- United States Department of Defense. *Operation Ivy*. 1952; Hollywood, CA: Lookout Mountain Laboratory, 1953. Film.
- United States Department of Defense, Office of Civil Defense, *Six-Point Accelerated CD Program Described to State, Local Officials*. Washington, D.C.: Department of Defense, Office of Civil Defense, 1962.
- United States Department of Defense and United States Atomic Energy Commission. *The Effects of Atomic Weapons*. Washington, D.C.: Government Printing Office, 1950.
- United States Department of Homeland Security, National Preparedness Task Force. *Civil Defense and Homeland Security: A Short History of National Preparedness Efforts*. U.S. Department of Homeland Security, 2006.
- United States Office of Civil Defense, and Archer Productions. *Duck and Cover*. Directed by Anthony Rizzo. 1951. Film.
- “U.S. Uses Tanks, Guns in Show of Force.” *Fargo Forum* (Fargo, ND), August 23, 1961.
- “War Advent Wound Find Home Front Unprepared.” *Fargo Forum* (Fargo, ND), July 27, 1961.
- Wells, J.V.B. “Floods of 1952 in the Basins of the Upper Mississippi River and Red River of the North.” United States Geological Survey, January 1, 1994. <https://pubs.er.usgs.gov/publication/wsp1260C>.
- Whitfield, Stephen J. *The Culture of the Cold War*. Baltimore: John Hopkins University Press, 1996.
- Winkler, Allan M. *Life Under a Cloud: American Anxiety About the Atom*. Champaign: University of Illinois Press, 1999.
- “You and the Cold War: Can Nation Long Endure? We are Failing the Test.” *Fargo Forum* (Fargo, ND) June 11, 1961.