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# Britain Can Take It: Civil Defense and Chemical Warfare in Great Britain, 1915-1945

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

BRITAIN CAN TAKE IT: CHEMICAL WARFARE AND THE ORIGINS OF CIVIL  
DEFENSE IN GREAT BRITAIN, 1915 - 1945

A dissertation submitted in partial fulfillment of

the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

HISTORY

by

Jordan Malfoy

2018

To: Dean John F. Stack, Jr.  
Green School of International and Public Affairs

This dissertation, written by Jordan Malfoy, and entitled Britain Can Take It: Chemical Warfare and the Origins of Civil Defense in Great Britain, 1915-1945, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Date of Defense: March 7, 2018

The dissertation of Jordan Malfoy is approved.

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Florida International University, 2018

ABSTRACT OF THE DISSERTATION

BRITAIN CAN TAKE IT: CHEMICAL WARFARE AND THE ORIGIN OF CIVIL  
DEFENSE IN GREAT BRITAIN, 1915 - 1945

by

Jordan Malfoy

Florida International University, 2018

Miami, Florida

Professor Gwyn Davies, Major Professor

This dissertation argues that the origins of civil defense are to be found in pre-World War II Britain and that a driving force of this early civil defense scheme was fear of poison gas. Later iterations of civil defense, such as the Cold War system in America, built on already existing regimes that had proven their worth during WWII. This dissertation demonstrates not only that WWII civil defense served as a blueprint for later civil defense schemes, but also that poison gas anxiety served as a particular tool for the implementation and success of civil defense. The dissertation is organized thematically, exploring the role of civilians and volunteers in the civil defense scheme, as well as demonstrating the vital importance of physical manifestations of civil defense, such as gas masks and air raid shelters, in ensuring the success of the scheme.

By the start of World War II, many civilians had already been training in civil defense procedures for several years, learning how to put out fires, recognize bombs, warn against gas, decontaminate buildings, rescue survivors, and perform first aid. The British government had come to the conclusion, long before the threat became realized, that the civilian population was a likely target for air attacks and that measures were

required to protect them. World War I (WWI) saw the first aerial attacks targeted specifically at civilians, suggesting a future where such attacks would occur more frequently and deliberately. Poison gas, used in WWI, seemed a particularly horrifying threat that presented significant problems. Civil defense was born out of this need to protect the civil population from attack by bombs or poison gas. For the next five years of war civil defense worked to maintain British morale and to protect civilian lives. This was the first real scheme of civil defense, instituted by the British government specifically for the protection of its civilian population.

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## Introduction

On September 3<sup>rd</sup>, 1939, just minutes after Prime Minister Neville Chamberlain announced that Britain was now at war with Germany, the air raid sirens sounded for the first time. Many people immediately rushed to their shelters, convinced this was the beginning of the end.<sup>1</sup> Some thought they were about to be attacked with poison gas.<sup>2</sup> One young girl was bundled up in her coat and sent to shelter under the stairs.<sup>3</sup> In Southall, people out on the streets, many just returning home from Sunday church services, began running. Air raid wardens shouted at people to get off the streets.<sup>4</sup> One young woman rushed home to find her parents and siblings sitting inside with their gas masks on.<sup>5</sup> Ultimately, this first sounding of the sirens turned out to be a false alarm and no bombs fell on Britain that day. The reaction of the population, however, showed not only a general anxiety over war, but demonstrated the significant government effort that had already been put into civil defense. People had reacted the way they were supposed to—anxious but with a purpose.

The air raids did come eventually and with them a serious threat to civilian life. During World War II (WWII) millions of British civilians performed these same actions thousands of times, using their training in civil defense to protect themselves and their fellow citizens. By the start of the war, many civilians had already been training in civil

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<sup>1</sup> Imperial War Museum: 12/29/1, Raymond Fry, *Wartime Schoolday in Surrey*, 1.

<sup>2</sup> S. Gaylor, “Wartime Memories,” *BBC’s People’s War*, accessed August 14, 2017, <http://www.bbc.co.uk/history/ww2peopleswar/stories/30/a3545930.shtml>.

<sup>3</sup> IWM: 99/66/1, Heather Macdonald, *Wartime Memories 1939-1945*, 1.

<sup>4</sup> Doris Anderson, “And So War Began...,” *BBC’s People’s War*, accessed August 14, 2017, <http://www.bbc.co.uk/history/ww2peopleswar/stories/61/a3699561.shtml>.

<sup>5</sup> *ibid.*

defense procedures for several years, learning how to put out fires, recognize bombs, warn against gas, decontaminate buildings, rescue survivors, and perform first aid. The British government had come to the conclusion, long before the threat became realized, that the civilian population was a likely target for air attacks and that measures were required to protect them. Civil defense was born out of this need to protect the civil population from attack by bombs or poison gas. For the next five years of war civil defense worked to maintain British morale and to protect civilian lives. This dissertation argues that the origins of civil defense are to be found in pre-WWII Britain and that a driving force of this early civil defense scheme was fear of poison gas. Later iterations of civil defense, such as the Cold War system in America, built on already existing regimes that had proven their worth during WWII. Similarly, later schemes simply replaced poison gas as a tool for the implementation and success of civil defense with the nuclear threat as the source of fear.

Civil defense at first glance might not seem to be a topic with great importance in the grander scheme of war or the history of the organization of the the home front. However, this dissertation will show that civil defense has far wider-reaching implications than might be immediately apparent. Civil defense is not merely a governmental policy or a component of national defense, but also touches on many different, important topics across society. As a scheme created and implemented by the government, civil defense can provide insights into various aspects of how the government perceives the homefront at a time of war and what it and its actors see as a vital part of the nation that must be protected. Similarly, as a scheme intended for civilians, civil defense touches on many thematic aspects of civilian life in a wartime



society. As a program that permeated most aspects of a wartime society, civil defense traverses topics such as war and policy, war and gender, war and technology, and war and health.

Civil defense is particularly intimately connected to the topic of war and policy. In WWII Great Britain, civil defense showcases the government's wartime policies and how civilians adapted to these policies. Civil defense was a governmental scheme directed specifically at civilians and thus a close look at civil defense practices and the policies that underpinned these, offers insight into the intersection between policy and civilian life. An exploration of civil defense schemes can show the government's understanding of its own civilians, as well as civilians' perception of their government. Such studies can answer questions as to civilians' roles in government and society during wartime, the government's plan for its civilians, and the overarching priorities of wartime policy. Additionally, comparisons of civil defense iterations, such as the discrepant experiences in both WWI and WWII practices as this dissertation explores, can provide insight into how prior practices shaped contemporary approaches. A study of civil defense also demonstrates how war mobilization efforts impact society. Because civil defense is directly linked with the war effort on the home front, studies of civil defense can offer a better understanding of how civilians interacted with the concept of war, their government's response to war, and their own role in a wartime society. As civil defense was used by the government as a tool to control or direct civilian behavior, a study of civil defense also touches on the topic of psychology, and particularly psychology as reflected in governmental policy. The concept of psychology as policy is a consistent theme across regimes of civil defense and is an important component of any study on war

and policy, and how such policies affect civilians. Such an exploration of governmental aims, civilian responsibilities and roles, and the intersection between the two are a vital component of any scholarship on war and policy.

Civil defense also pertains to the topic of war and gender. As many other studies have shown, war and mass mobilization had a direct impact on the life of women, especially through the entry of women into the workforce en masse. Civil defense offers another insight into how women participated in and navigated wartime societies. In civil defense schemes across the world and throughout the latter half of the twentieth century, women played a pivotal role. The success of civil defense practices and the acceptance of such practices by the public often hinged on the participation of women. Unlike the labor force, where women simply replaced male workers, in civil defense women were able to create and define their own roles. Additionally, civil defense jobs often represented significant dangers or required a certain authority, allowing women not only to participate in the workforce, but to do so in a manner that often ran counter to contemporary notions of female vulnerability. Participation in civil defense also offered women the opportunity to be directly involved in the war effort and national service, allowing them the opportunity to become more complete citizens in societies where citizenship was often defined by national service and ability. Studies of civil defense can thus offer valuable insight into the role of gender in wartime societies, but also explore the relation between women and their government.

Civil defense also incorporates issues of war and health. Civil defense particularly touches on aspects of public health and can perhaps be seen as a program of public health in and of itself. As a scheme intended to protect civilians from both bodily and

psychological harm, the primary purpose of civil defense is to maintain civilian health. Across all aspects of British WWII civil defense, issues of health were a persistent concern. Worries over diseases, vermin, and nutrition permeate British responses. Children's health was a particular concern, as is evidenced by the evacuation plan and special programs directed at youth. Maintaining the psychological health of civilians during times of crisis was a major purpose of civil defense. Studies of civil defense therefore offer insight into how the government perceived issues of health and disease, what aspects of health they considered more important than others, and the means by which the government sought to address such issues. Additionally, civil defense shows how civilians dealt with their own concerns over health, as well as how they perceived or interacted with their government's plans for their health.

Lastly, civil defense relates to the topic of war and technology. Many technologies owe their existence or improvement to war, and civil defense, as a component of war, similarly has influenced and incorporated technology into its practices. Poison gas, a war technology born out of WWI, was a major influence on Britain's WWII civil defense planning. In this case, new technologies were required to combat the threat that was now menacing civilian lives. The gas mask, in particular, was a technology that saw significant improvement and evolution in the lead-up to, and during, WWII. Anti-gas technologies, such as powders, creams, and protective garments, sought to combat the gas threat. A study of civil defense is thus particularly useful for understanding how war and military technologies came to see application in civilian life and how such technologies may have been altered or adapted for civilian use. Similarly, civil defense technologies directly aimed to counteract military technologies, such as high explosive bombs, through

various means. The evolution of the various British air raid shelters shows the importance of technology, and its continuous improvement and adaptation, to civil defense.

For a study on WWII civil defense the technology of poison gas plays a particularly pivotal role, as it informed not only every aspects of civil defense programs and training, but was also a driving force of the civil defense scheme itself. Poison gas as a tool of war has been examined in scholarly literature, but no scholar has drawn causal links between gas and the creation of civil defense as I argue here. Scholarship on poison gas revolves heavily around WWI, the only major war where such weapons were used. Such studies tend to focus entirely on the military or technical aspects of chemical weapons without considering wider societal implications or exploring the cultural effects such weapons had on wartime populations.<sup>6</sup> While Donald Richter's use of private letters and diaries of the men in the Special Brigade provides unique and valuable insight into the minds of the soldiers engaged in gas warfare, the scope of the study does not include the impact on British society at large. Richter's work does, however, provide context on how soldiers viewed the use of gas and how these soldiers may have conveyed their own perceptions to families back home through letters and diaries. While the effect of gas warfare on the home front is outside the scope of his study, Tim Cook's monograph does seek to explore the psychological impact chemical warfare had on the Canadian soldiers in the trenches. Two exceptions to this narrow period focus are monographs by Marion Girard and Edmund Russel. In her monograph, Girard explores the impact of poison gas use during

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<sup>6</sup> For literature on WWI poison gas use see: Thomas Faith, *Behind the Gas Mask: The U.S. Chemical Warfare Service in War and Peace* (Chicago: University of Illinois Press, 2014); Donald Richter, *Chemical Soldiers: British Gas Warfare in World War One* (South Yorkshire: Pen and Sword, 2014); Tim Cook, *No Place to Run: The Canadian Corps and Gas Warfare in the First World War* (Vancouver and Toronto: UBC Press, 1999); Albert Palazzo, *Seeking Victory on the Western Front: The British Army & Chemical Warfare in World War I* (Lincoln: University of Nebraska Press, 2000).

the war had on British society at large and traces the public consciousness of the new weapon.<sup>7</sup> Russell's study details how the use and development of chemical weapons was reflected in the civilian use and development of pesticides. He argues that chemical warfare in WWI had a positive effect on the American chemical industry, which not only grew in size and production capacity, but also bestowed upon it a certain prestige unknown prior to 1915.<sup>8</sup>

Girard, Russell, and other scholars have largely failed to address how chemical weapons impacted military and civilian populations culturally and psychologically during a later war, when those weapons remained a threat, but were not actually used.<sup>9</sup> Russell succeeds in showing how chemical warfare directly impacted civilian chemistry and civilian terminology, but exploring the wider cultural ramifications of this is outside the scope of his study. While William Moore focuses more heavily on the political decision-making and the work of chemists after WWI, he does address the impact chemical warfare had on civilians during the interwar years and WWII.<sup>10</sup> Olaf Groehler's account of German preparation, production, and use of chemical weapons provides valuable and necessary insight into both world wars and the interwar period.<sup>11</sup> He has provided a detailed study in particular on German chemical warfare research, as well as political and

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<sup>7</sup> Marion Girard, *A Strange and Formidable Weapon: British Responses to World War I Poison Gas* (Lincoln: University of Nebraska Press, 2008), 10.

<sup>8</sup> Edmund Russell, *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring* (Cambridge: Cambridge University Press, 2001), 20.

<sup>9</sup> For more on chemical weapons in general see: William Moore, *Gas Attack* (London: Leo Cooper, 1987); Olaf Groehler, *Der Lautlose Tod: Einsatz und Entwicklung deutscher Giftgase von 1914 bis 1945* (Hamburg: Rowohlt, 1989); Edward Spiers, *A History of Chemical and Biological Weapons* (London: Reaktion Books, 2010); Kim Coleman, *A History of Chemical Warfare* (New York: Palgrave Macmillan, 2005); Robert Harris and Jeremy Paxman, *A Higher Form of Killing* (New York: Random House, 2002); Jonathan Tucker, *War of Nerves: Chemical Warfare from World War I to Al Qaeda* (New York: Anchor Books, 2006).

<sup>10</sup> Moore, *Gas Attack*, 44.

military planning after WWI and through 1945. His focus is, however, primarily on the military and governmental decision-makers, with only brief mentions of civilian impact and preparations. Edward Spiers does not offer detailed insight into any time period or aspect of chemical warfare, although his chapter on chemical weapons in third world conflicts provides a view often ignored by other scholars of the topic.<sup>12</sup> While a significant amount of literature exists on the topic of chemical warfare, there is a notable lack of academic focus on the topic post-WWI. Susan Smith's *Toxic Exposures* provides one of the only academic explorations of the topic post-WWI and discusses the mustard gas experiments carried out on soldiers prior to and during WWII.<sup>13</sup> Her monograph, however, focuses primarily on the United States and the experiments carried out by the Chemical Warfare Service. A much larger selection of the body of literature is aimed at popular audiences and often lacks rigorous academic standards. Harris and Paxman have provided what is often considered the most comprehensive account of chemical warfare, tracing the use of chemical and biological weapons from WWI through Desert Storm. However, their account lacks academic rigor and is rife with personal opinions and sometimes misinformation.<sup>14</sup> Jonathan Tucker offers a readable narrative of chemical warfare from WWI to Al-Qaeda, but as a political scientist his focus lies entirely on political decision-making regarding the use, research into, and abolition of chemical weapons, offering no insight into cultural or larger contextual questions.<sup>15</sup>

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<sup>11</sup> Groehler, *Der Lautlose Tod*, 62.

<sup>12</sup> Spiers, *History of Chemical and Biological Weapons*,

<sup>13</sup> Susan Smith, *Toxic Exposures: Mustard Gas and the Health Consequences of World War II in the United States* (New Brunswick, NJ: Rutgers University Press, 2017).

<sup>14</sup> Harris and Paxman, *Higher Form of Killing*, 22.

<sup>15</sup> Jonathan Tucker, *War of Nerves*, 22.

World War I saw the first aerial attacks targeted specifically at civilians, suggesting a future where such attacks would occur more frequently and deliberately. British civilians found themselves the targets of zeppelin and bomb attacks that, although limited in their effect, caused enough casualties and damage to prove a serious concern for government and civilians alike. As early as 1915, the government issued the first air raid precautions (ARP) instructions to its citizens. While the government provided some advice and people sought shelter from zeppelin raids in basements or underground railway stations, there was not yet a concerted scheme or coordinated effort to protect the civil population from harm. Even after the war, government officials worried about ways to protect civilians from future threats should war come again. Poison gas, used for the first time in WWI, seemed a particularly horrifying threat that presented significant problems (see Chapter 2). How could the British government ensure the safety of the country's civilians if war came, especially if a ruthless enemy were to employ poison gas against a vulnerable population? Civil defense was the chosen solution.

Civil defense can be defined as a government-directed scheme intended to protect civilians from enemy attack. The key component that separates civil defense from regular military defensive measures is that civil defense relies entirely on civilians to participate in their own protection. While the government provides for various aspects of civil defense, such as equipment, facilities, plans, and training, the level of involvement by the government and its officials varies between the different schemes of civil defense and the nations implementing it. Civilians are asked to volunteer their time to be trained, to practice what they have learned, and, if willing and qualified, to perform the job of one of the many civil defense workers. Relying on civilian labor, largely volunteer and mostly

unpaid, allows the government to redirect much-needed resources and frees up soldiers who might otherwise have been tasked with protective duties. Civil defense also provides civilians with a real investment in the government's plans and foreign policy.

Participating in the war effort, whether an actual or cold war, invests civilians and ensures their continued interest in affairs. Apathy among the population could prove detrimental to the government's overall plans and prove harmful to civilian work that directly supported the war effort. Civil defense was therefore one tool to combat civilian apathy by offering a job of importance to the nation. Relying entirely on civilian participation, however, could often prove problematic for civil defense programs if interest was waning. A large component of the plan of each government implementing civil defense thus also revolved around publicity and creating civilian interest in the program. To present civil defense work as a job vital to the nation was often a good recruiting tool, but fear worked even better. Governments that instituted civil defense schemes exploited their population's anxiety over a potential attack to stimulate interest and participation in civil defense. Key elements of civil defense have played an important role in the war effort and governmental decision-making of nations engaged in war since WWI, with the focus and effort invested in civil defense increasing as civilian populations became more vulnerable.<sup>16</sup>

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<sup>16</sup> Andrew D. Grossman, *Neither Dead Nor Red: Civil Defense and American Political Development During the Early Cold War* (New York: Routledge, 2001); Laura McEnaney, *Civil Defense Begins at Home* (Princeton, N.J.: Princeton University Press, 2000); Kenneth D. Rose, *One Nation Underground: The Fallout Shelter in American Culture* (New York; London: New York University Press, 2004); Spencer Weart, *The Rise of Nuclear Fear* (Cambridge, Mass: Harvard University Press, 2012); Paul Boyer, *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age* (Chapel Hill: The University of North Carolina Press, 1994, Kindle eBook); David Krugler, *This Is Only a Test: How Washington D.C. Prepared for Nuclear War* (New York: Palgrave Macmillan, 2006, iBook); Guy Oakes, *The Imaginary War: Civil Defense and American Cold War Culture* (New York: Oxford University Press, 1995); Matthew Grant, *After the Bomb: Civil Defence and Nuclear War in Britain, 1945-68* (Basingstoke, UK: Palgrave Macmillan, 2010).



The topic of civil defense generally conjures up images of students hiding from atomic bomb blasts under their desks or prepared householders building a fallout shelter in their backyards, but this view of civil defense ignores the very real and successful civil defense schemes that were precursors to Cold War programs. Cold War civil defense often enjoys an iconic, and often slightly humorous, image, that reflects contemporary interest in atomic culture and the America of the 1950s and 60s. American Cold War civil defense was defined by elements such as fallout shelters, gas masks for the civilian population, warning sirens, training volunteers, and an organized governmental scheme of civil defense services. Popular anxiety over radiation and complete annihilation greatly influenced the purpose and execution of American civil defense.<sup>17</sup>

What such a concept of civil defense fails to grasp, however, is that these well-known schemes of civil defense had their origin much earlier than the advent of the atom bomb. Focusing entirely on Cold War civil defense efforts ignores the origins of such programs and the foundation for the many later civil defense schemes that was laid in the 1930s in Great Britain. Scholars of civil defense have often ignored entirely, or only mentioned in passing, the British civil defense scheme prior to 1945, allowing no correlation between these early measures and the civil defense schemes of the Cold War. Similarly, the literature on chemical warfare has failed to address the impact poison gas, or the anxiety thereof, had on the creation and execution of early civil defense schemes. The existing literature primarily focuses on the use of chemical weapons or their production and preparation after WWI, but has not addressed the very impact a weapon can have on the public consciousness and government policy even if it is not used. To

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<sup>17</sup> For more on atomic fears see Boyer, *Bomb*; Oakes, *Imaginary War*; Rose, *Underground*; Grossman, *Neither Dead Nor Red*; Grant, *After the Bomb*.

gain a proper understanding of civil defense, its purpose, its execution, its successes and failures, as well as its place in the public consciousness, it is necessary to explore the conditions that led to the first implementation of a comprehensive civil defense program and the institution of this first civil defense scheme. This dissertation aims to fill the gap in the literature by exploring the origins of civil defense in the British efforts to protect civilians in the lead-up to, and during, WWII.<sup>18</sup>

The civil defense programs of WWII and later the Cold War both were driven by the same ideology and share many elements. Arising out of WWI ARP measures, British civil defense in the lead-up to, and during, WWII sought to protect the population from an existential threat through protective measures and modification of behavior. This was the first real scheme of civil defense, instituted by the British government specifically for the protection of its civilian population. While Cold War civil defense, both in Britain and America, was distinctive for its nuclear war survival preparations, the major themes of civil defense remained the same. Civil defense certainly sought to protect civilian lives, but psychological and political aspects were often just as important. Civil defense programs throughout the 20<sup>th</sup> century sought to control civilian behavior, to ensure the psychological soundness of civilians, to encourage self-help, and to garner support for governmental policies. Additionally, all programs shared similar key concepts in their approach to civil defense, such as employing anxiety as a tool to ensure compliance and dispersal as a primary form of protection.

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<sup>18</sup> Among the limited literature on pre-1945 civil defense are: K.W. Mitchinson, *Defending Albion* (New York: Palgrave Macmillan, 2005); Susan Grayzel, *At Home and Under Fire: Air Raids and Culture in Britain from the Great War to the Blitz* (Cambridge: Cambridge University Press, 2005); Peter Laurie, *Beneath the City Street: A Private Enquiry into the Nuclear Preoccupations of Government* (London: Penguin Press, 1970).

Civil defense was the face of war on the home front. During the Cold War, the American government made direct and purposeful links between civilian preparedness and the war effort. Tracy Davis argues that it was nuclear weapons that shifted the theater of war to the home front, but this argument entirely ignores the strategic bombing campaigns of WWII that saw civilians targeted purposefully.<sup>19</sup> The Truman administration specifically linked civil defense to its Cold War grand strategy, so that home front and civilian preparedness, as well as moral fortitude, became necessary components of nuclear deterrence.<sup>20</sup> Additionally, civil defense training programs specifically sought to militarize civilian life.<sup>21</sup> The home fallout shelter specifically tied the family home to a global threat. The government's encouragement to its citizens to build home shelters both admitted that the home itself was no longer adequate, but also implied that the home, in its improved form, was a vital aspect of national security.<sup>22</sup> Civil defense also served as a tool of militarization of the American home. Civil defense was the domestic analogue of a militarized foreign policy and although the Cold War U.S.A. was not a garrison state, American culture nevertheless absorbed the ideology of war.<sup>23</sup> During WWII, however, civil defense was not merely symbolic of war on the home front, but allowed civilians to directly participate in the war effort. British civil

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<sup>19</sup> Tracy C. Davis, *Stages of Emergency: Cold War Nuclear Civil Defense* (Durham, N.C: Duke University Press Books, 2007. eBook), Introduction.

Lord Cherwell specifically argued for the bombing of German civilians as a dehousing strategy, which would in turn break civilian morale.

Sir Charles Kingsley Webster and Noble Frankland, *The strategic air offensive against Germany, 1939-1945, Vol 1* (London: HMSO, 1961).

<sup>20</sup> Grossman, *Neither Dead Nor Red*, 2.

<sup>21</sup> *ibid*, 104.

<sup>22</sup> Tom Vanderbilt, *Survival City: Adventures Among the Ruins of Atomic America* (Chicago ; London: University Of Chicago Press, 2010), 108.

<sup>23</sup> McEnaney, *Civil Defense Begins at Home*, 5, 10.

defense recruitment specifically emphasized this concept to draw volunteers who could not fight with the armed forces (see Chapter 4).

Psychology played a major role in the creation, execution, and success (or failure) of civil defense programs. The atom bomb, and later the even more powerful hydrogen bomb, presented a threat of complete annihilation that was certain to cause anxiety, or even terror and panic, in the general population. During the Cold War civil defense was specifically created to ease nuclear anxieties.<sup>24</sup> David Krugler points out one of the root problems of civil defense: civilians needed to be just the right amount of scared, because if they became too scared they might panic and would not participate in civil defense.<sup>25</sup> Guy Oakes has argued that civil defense planners were more concerned with the atom bomb as a weapon of mass terror and the maintenance of public morale and thus civil defense became a program to teach civilians to resist panic and manage their emotions.<sup>26</sup> Dee Garrison has referred to American civil defense as a massive federal failure to control public perception.<sup>27</sup> As emotional reactions came to be seen as disruptive or immobilizing in a potential nuclear war, many psychologists and psychiatrists actively engaged in civil defense planning.<sup>28</sup> Such medical experts applied themselves to convincing the American population that the atomic threat was not as bad as had initially been suggested and that hysteria was uncalled for and counterproductive.<sup>29</sup> In Britain, as Matthew Grant has argued, by the 1950s civil defense had become a facade and was used

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<sup>24</sup> Krugler, *Only a Test*, Introduction.

<sup>25</sup> *ibid*, Chapter 1.

<sup>26</sup> *ibid*, 42, 52.

<sup>27</sup> Dee Garrison, *Bracing for Armageddon: Why Civil Defense Never Worked* (Oxford ; New York: Oxford University Press, 2006), 28.

<sup>28</sup> Boyer, *Bomb*, Loc6957.

<sup>29</sup> *ibid*, Loc7020.

solely to prop up public confidence.<sup>30</sup> In contrast to the American focus on civilian morale, however, British civil defense planners had few concerns their citizens could handle bombardment and war since they had just successfully withstood German bombs in WWII.<sup>31</sup> During WWII, the threat was on a lesser scale, but serious and persistent bombarding of civilians, such as occurred during the Blitz in 1940, was just as likely to lead to poor civilian morale and panic. Civil defense programs during both time periods thus aimed to employ such anxieties for a more useful purpose, such as volunteer work or preparations in the home. Through controlling civilian behavior, achieved by training and repeated exposure to relevant information, governments also aimed to control civilians' psychological response to danger. Panic and the subsequent chaos and loss of morale were major concerns for both British and American governments. In Britain, in particular, panic was likely to undermine the war effort through civilian inaction and apathy. Panic and chaos could also overwhelm existing services, such as police, fire, and first aid, so it was necessary that governments could ensure their civilians acted in a calm and predictable manner in the case of an emergency.

Civil defense also often aimed to shift civilian psychology. The themes of self-help and personal responsibility were key components of civil defense programs throughout the 20<sup>th</sup> century. Americans during the Cold War were almost entirely reliant on themselves for protection, and, although the government offered some fallout shelters, citizens were generally asked to build their own shelters and supply their own gas masks. Self-help and community preparedness were the first theme of American civil defense.<sup>32</sup>

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<sup>30</sup> Grant, *After the Bomb*, 7.

<sup>31</sup> *ibid*, 59.

<sup>32</sup> Grossman, *Neither Dead Nor Red*, 41.

Education campaigns usually began with a shock treatment that delineated the realities of nuclear war and then countered this with information on self-help and civil defense training to stimulate volunteerism and a can-do attitude.<sup>33</sup> The push by the U.S. government for its citizens to build their own shelters was also intended to disincline them to rely on the federal government and to deflect resentment they might feel at the neglect of civil defense by Washington.<sup>34</sup> The emphasis on self-help ensured that civil defense appeared as “home-spun” and “grassroots” efforts disconnected from wider policy.<sup>35</sup> Laura McEnaney has suggested that civil defense defined Cold War militarization as a personal responsibility and by blaming citizens’ emotional reactions or unpreparedness for threat of attack it absolved the government from blame.<sup>36</sup> British civil defense called on citizens’ sense of duty and patriotism to enjoin them to enroll and engage in the civil defense services.<sup>37</sup> Post-1951 the emphasis on individual responsibility became a key theme of British civil defense recruitment.<sup>38</sup> In WWII Britain, self-help was defined mostly by civilians taking the initiative to participate in, or make use of, government-provided protection and civil defense training. Civilians needed to participate in civil defense willingly, they needed to learn, train, practice, and ultimately perform civil defense. Emphasizing personal responsibility and self-help thus instructed civilians that their protection was as much their own responsibility as the government’s.

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<sup>33</sup> Krugler, *Only a Test*, Chapter 5.

<sup>34</sup> Boyer, *Bomb*, Loc7009.

<sup>35</sup> McEnaney, *Civil Defense Begins at Home*, 39.

<sup>36</sup> *ibid.*

<sup>37</sup> Grant, *After the Bomb*, 66-67.

<sup>38</sup> *ibid.*, 69-71.

Anxiety over a type of weapon that appeared more gruesome than any other was a key component of civil defense. Nuclear anxieties comprised fears of mass extinction, not merely personal danger, and this drove the civil defense narrative. Nuclear fallout, which inspired great anxiety during the Cold War, reflected similar fears of extinction and of insidious invisible threats as had poison gas prior to 1945. The threat of an invisible danger is to be particularly feared as it represents an unknowable reality outside the realm of normal experience.<sup>39</sup> Americans' immediate reaction to the atomic bomb was one of intense fear and a somewhat undefined conviction that an urgent public response was necessary.<sup>40</sup> Scientists and government leaders purposefully employed fear to break public apathy.<sup>41</sup> Radioactive fallout was presented as just another household germ, turning anxieties about cleanliness into the wider discourse on civil defense.<sup>42</sup> Kenneth Rose exploring the effect nuclear apocalyptic films and fiction had on the American psyche, has suggested that such media undermined civil defense efforts because survival did not seem plausible, a major factor in why American civil defense was not wholly successful.<sup>43</sup> Grossman has argued that the American government sought to use this mass fear as a tool of control and to channel it through training regimens, such as military combat programs.<sup>44</sup> For civilians to volunteer for civil defense they needed to recognize the threat to their lives, fear it, but still feel that they could do something about it. The threat presented by nuclear war was often too overwhelming and thus American civil

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<sup>39</sup> Weart, *Nuclear Fear*, 114.

<sup>40</sup> Boyer, *Bomb*, Loc847.

<sup>41</sup> *ibid*, Loc1552-1647.

<sup>42</sup> Oakes, *Imaginary War*, 124.

<sup>43</sup> Rose, *Underground*, 77.

<sup>44</sup> Grossman, *Dead Nor Red*, 60.

defense programs suffered as a result.<sup>45</sup> Paul Boyer, however, has argued that while atomic fears predominated the American psyche and civil defense in the 1940s, this fear was displaced by anxiety over Soviet threats and communism.<sup>46</sup> From an early stage a majority of British civilians felt moral repulsion at the atomic bomb and believed if an attack occurred on the island nowhere would be safe.<sup>47</sup> After facts about fallout became widely known, the British outright rejected notions of survivability, thus undermining the success of Cold War civil defense at an early stage.<sup>48</sup>

Unlike Cold War civil defense, where radiation presented a terrifying threat intended to ensure compliance with civil defense measures, in WWII, poison gas presented a similar enemy. First used during WWI, poison gas was not only a novel weapon of war, but seen as especially brutal and barbarous compared to conventional weapons. While this weapon was not used against British civilians in WWI or after, there nevertheless was a persistent worry that poison gas could be used against the British Isles and this worry influenced every aspect of civil defense. Anxiety over a weapon seen as horrifying, such as gas or radiation, was vital to stimulate civilian interest in civil defense. Poison gas provided the impetus for civilians to engage in civil defense by presenting a threat that was not always easy to understand and generally seen as much more terrifying than conventional bombs. This anxiety over gas permeated everyday life and civil defense service, from building a gas-proof room in one's house to training in anti-gas measures, either as a civil defense volunteer or as a civilian wanting to be prepared. Additionally, in WWII especially, poison gas also provided one of the very

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<sup>45</sup> Krugler, *Only a Test*, Chapter 5.

<sup>46</sup> Boyer, *Bomb*, Loc7143-7155.

<sup>47</sup> Grant, *After the Bomb*, 16.



symbols of civil defense that served as both a reminder of an existing threat and also as a reassurance as an item of protection—the gas mask.

Chemical warfare may have been outlawed and its use described as inhumane, but scholars and authors cannot always agree on why gas, in particular, has obtained such notoriety. Girard has tied the gas taboo to early twentieth-century notions of civilization and progress. Since the 1899 Hague Convention sought to make war less cruel and as gas directly violated the Convention any deployment of this weapon was automatically considered as a barbaric act. Thus, when Germany used gas in 1915, the perception was that this represented a serious breach of international law and the use of such a barbaric weapon represented a reversion to less civilized times.<sup>49</sup> This idea of gas undermining civilization and progress continued through the interwar years and led to renewed chemical weapons bans.<sup>50</sup> Girard also argues that because gas inherently triggered an intrinsic fear of suffocation, its perception among the general public was much worse than for other weapons.<sup>51</sup> Albert Palazzo has argued similarly that because gas robs its victims of the ability to breathe it has been condemned as unacceptable.<sup>52</sup> James Hammond suggests instead that the perception of gas as inhumane was engineered by the British, who controlled information reaching North America, in response to German gas attacks.<sup>53</sup> More questionably he also argues that it was the effect of gas on unprotected horses, not soldiers, that so outraged the British public, in particular the English gentry.<sup>54</sup>

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<sup>48</sup> *ibid*, 10.

<sup>49</sup> Girard, *Formidable Weapon*, 10.

<sup>50</sup> *ibid*.

<sup>51</sup> *ibid*, 22.

<sup>52</sup> Palazzo, *Victory*, 2.

<sup>53</sup> James Hammond, Jr, *Poison Gas: The Myths Versus Reality* (Westport, CT: Greenwood Press, 1999), x.

Russell's study of chemical war against both humans and insects suggests that it was the similarities between poisoning humans with gas like vermin that drew such visceral reactions. He argues that to observers on both sides of the war, chemical weapons looked a lot like pest control, singling out poison gas as a weapon far more inhumane than shells or bullets.<sup>55</sup> Thomas Faith has suggested that it was a culmination of German actions (invading Belgium, sinking the *RMS Lusitania*, and the first use of gas) that allowed them to be depicted as a barbaric enemy and thus automatically condemned chemical weapons in a similar light.<sup>56</sup> Richter puts forth the idea that, unlike conventional weaponry, poison gas was seen as 'unsporting' by the British and thus quickly condemned.<sup>57</sup> Cook has argued that poison gas was vilified because it robbed soldiers of their ability to stay alive by virtue of their training and their intrinsic valor. There was nothing heroic or brave about dying from gas exposure and this alone separated chemical weapons from other lethal weapons of war.<sup>58</sup> Moore makes the case that, particularly after the first gas attack, the British government condemned poison gas because it knew Britain did not have the manufacturing capabilities to carry out large-scale gas reprisals.<sup>59</sup> It was the image of troops fleeing in panic that caused such negative opinions of gas, argues Palazzo, because such panic undermined the notion of morale on which the British Army was so reliant.<sup>60</sup> Such chaos would only lead to broken soldiers who had no military value.<sup>61</sup> Harris and

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<sup>54</sup> *ibid*, xi.

<sup>55</sup> Russell, *War and Nature*, 27.

<sup>56</sup> Faith, *Gas Mask*, Loc210

<sup>57</sup> Richter, *Chemical Soldiers*, 17.

<sup>58</sup> Cook, *No Place to Run*, 4.

<sup>59</sup> Moore, *Gas Attack*, 44.

<sup>60</sup> Palazzo, *Victory*, 45.

<sup>61</sup> *ibid*, 46.

Paxman point out that only chemical weapons came to encapsulate “frightfulness,” because gas, unlike other new weapons of war, became the symbol of a modern war that was evil and disgusting.<sup>62</sup> Spiers offers a more pragmatic reason, suggesting that gas served the purposes of anti-German propaganda, which quickly exploited Germany’s first use of the weapon.<sup>63</sup>

While fear served as a tool to implement civil defense programs during both WWII and the Cold War, civil defense itself was used as a political tool by both the British and American governments. The rehearsal of emergency plans was intended to ensure citizens could perform their expected roles even in the confusion of an attack.<sup>64</sup> Adding sounds, such as sirens, to expected actions ensured citizens behaved in predictable and acceptable ways at a time of crisis.<sup>65</sup> Davis has also suggested the “indoctrination” of children into the civil defense movement ensured a widespread interest and belief in the Civil Defense Program in the United States, contrary to allied countries, such as Britain and Canada, who had stricter rules on how children could be involved.<sup>66</sup> Davis’ monograph focuses specifically on civil defense as performance and rehearsal, elucidating how governments sought to control their citizens’ behavior. Cold War civil defense also sought to demonstrate that the behavior of good citizens in everyday life was a model for how they ought to behave when under attack.<sup>67</sup> Government planners presented civil defense training as the means to control one’s nuclear fear and to achieve

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<sup>62</sup> Harris and Paxman, *Higher Form of Killing*, 22.

<sup>63</sup> Spiers, *History of Chemical and Biological Weapons*, 40.

<sup>64</sup> Davis, *Stages of Emergency*, Introduction.

<sup>65</sup> *ibid*, Introduction.

<sup>66</sup> *ibid*.

<sup>67</sup> Monteyne, *Fallout Shelter*, Loc150.

self-mastery.<sup>68</sup> Government leaders worried that Americans would react fearfully and unpredictably to a Soviet atomic attack, which would undermine U.S. military and political strategy, so they sought to control civilian reactions through preparedness and public relations programs.<sup>69</sup> Grossman specifically defines civil defense as a blueprint for social control.<sup>70</sup> Urban planners saw in civil defense an opportunity to promote the idea of decentralization they had failed to successfully sell to populations in the mid-1940s. They employed the threat of nuclear war to convince cities and their citizens of the importance of comprehensive planning.<sup>71</sup> In both cases, providing a scheme of civil defense for civilians to engage in was partially intended to garner support for governmental policy. To encourage support of a central policy decision, such as entering WWII or ensuring nuclear deterrence, the government needed to reassure its civilians that means of protection existed and that the government was doing everything it could to help. In Britain in particular, government officials consistently took public opinion into consideration when deciding on implementing measures of civil defense.

Civil defense programs were therefore also tools to manipulate public opinion to align with the government's interests and decisions. In turn, a failure to institute such programs could suggest to the civil population a lack of concern by the government for its people. Oakes has argued that civil defense was the instrument chosen to convince the American public of the price of any failure in the policy of deterrence.<sup>72</sup> NSA planners specifically sought to align public psychology with the requirements of the national

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<sup>68</sup> Oakes, *Imaginary War*, 69-75.

<sup>69</sup> Grossman, *Dead Nor Red*, 30.

<sup>70</sup> *ibid*, 37.

<sup>71</sup> Boyer, *Bomb*, Loc6882.

<sup>72</sup> Oakes, *Imaginary War*, 12.

security policy of deterrence through the mitigation of fear.<sup>73</sup> Emotion managers would control nuclear terror through the promotion of civil defense.<sup>74</sup> The American government used civil defense to make the policy of deterrence palatable to the population by assuring them that through these programs a meaningful number of citizens and the basic social structure could survive.<sup>75</sup> Civil defense provided citizens with a sense of security and a sense of normalcy in anxious times<sup>76</sup>. Paul Boyer has argued that civil defense participation was intended to calm public fears, “[t]he “constructive activity” of building a shelter would counteract anxiety and “contribute to the feeling that ‘I am really able to do something about it.’”<sup>77</sup> Civil defense thus served as a means of “inoculating” the populace against panic in the event of a nuclear attack, by both confronting citizens with the harsh reality of nuclear war and simultaneously reassuring them of their chances of survival.<sup>78</sup> Civil defense measures thus also aimed to convince civilians that their government was there to protect them. Civil defense itself was also often touted as a form of deterrence, particularly in reference to chemical warfare. A population well-protected from poison gas, it was argued, would present an undesirable target for gas warfare and thus the protective measures themselves might serve to prevent any such attack.<sup>79</sup>

Despite the equalizing force of civil defense, social issues nevertheless penetrated all aspects of these programs. American civil defense programs were required to continue

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<sup>73</sup> *ibid*, 39.

<sup>74</sup> *ibid*, 53.

<sup>75</sup> Garrison, *Armageddon*, 20.

<sup>76</sup> Michael Amundson and Scott C. Zeman, eds. *Atomic Culture: How We Learned to Stop Worrying and Love the Bomb*. Boulder (University Press of Colorado, 2004), 109.

<sup>77</sup> Boyer, *Bomb*, Chapter 26 (Loc 7009).

<sup>78</sup> Weart, *Nuclear Fear*, 71.

<sup>79</sup> London Metropolitan Archive: CL/CD/1/275, London County Council, *Note for recruiting speech to be made by Mr. John Wilmot at a receipting meeting to be held at the Mansion House*, May 3rd, 1939, 2.

segregation practices in the event of nuclear war, with segregated fallout shelters and dispersal plans that would keep blacks out of white neighborhoods in the event of evacuation.<sup>80</sup> Such fears over African American migration out of cities, which were considered the main target in the event of nuclear attack, were sometimes more concerning to white Americans than nuclear annihilation itself.<sup>81</sup> Civil defense films generally excluded non-white families or shelter residents, as well.<sup>82</sup> Others saw a potential nuclear attack on American cities as “Nature’s slum clearance program.”<sup>83</sup> In hypothetical attack scenarios such crowded, poor, urban, ethnic neighborhoods were generally destroyed. 1950s civil defense narratives often echoed fears of racial slums, contrasting the elimination of cities with the survival of the idealized white suburban family<sup>84</sup>. Reports of racial bias in civil defense programs, such as among the wardens, significantly hurt recruitment and undermined the success of these initiatives.<sup>85</sup> In Britain, class biases, in particular, provoked some tensions in the civil defense realm, particularly in the shelters. Civil defense also domesticated war and ensured that military preparedness became a family affair.<sup>86</sup> McEnaney has argued that civil defense therefore had a dual personality that combined both military ethics and an idealized version of domesticity.<sup>87</sup> The heavy focus of the family as the center of civil defense unintentionally

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<sup>80</sup> Patrick B. Sharp, *Savage Perils: Racial Frontiers and Nuclear Apocalypse in American Culture* (Norman: University of Oklahoma Press, 2007), 197-198.

<sup>81</sup> Krugler, *Only a Test*, Chapter 2.

<sup>82</sup> Monteyne, *Fallout Shelter*, Chapter 3, Occupying Public Shelters (Loc 1799).

<sup>83</sup> Rose, *Underground*, 136.

<sup>84</sup> Monteyne, *Fallout Shelter*, Chapter 1 (Loc 385).

<sup>85</sup> Krugler, *Only a Test*, Chapter 3.

<sup>86</sup> McEnaney, *At Home*, 5.

<sup>87</sup> *ibid.*

feminized preparedness.<sup>88</sup> Garrison, who focuses heavily on the role of women in civil defense and anti-nuclear protests, suggests that women played a much more significant role than is usually ascribed to them in civil defense programs.<sup>89</sup> In Britain, appeals for volunteers were heavily gendered, as were the civil defense services, but a majority of volunteers by the mid-1950s were female.<sup>90</sup> In the lead-up to and during WWII, civil defense offered many women freedoms they had not been able to enjoy before, but their ability to work civil defense jobs or to seek shelter was nevertheless restricted.

Dispersing the population to prevent mass casualties was a key component of all civil defense programs. The morale of citizens under attack was always a pressing concern and government officials worried about the toll that mass casualties, or the death of vulnerable populations (such as children or pregnant women) would have on overall morale. During the Cold War, due to the massively-destructive nature of atomic weapons, dispersal was more of an idealistic solution than a practical one. To effectively disperse Cold War civilian populations a sweeping reconfiguration of American cities and their suburbs was necessary.<sup>91</sup> The American government actively supported dispersal, with the 1956 Defense Production Act offering tax incentives to dispersing industries.<sup>92</sup> Urban planners also believed that dispersal could speed up slum clearance, diminish industrial pollution, and create parks.<sup>93</sup> Dispersal was effectively seen as a defense mechanism, both to minimize the destructive effects of an enemy nuclear bomb, but also as a deterrent

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<sup>88</sup> *ibid*, 89.

<sup>89</sup> Garrison, *Armageddon*, 81, 113.

<sup>90</sup> Grant, *After the Bomb*, 73.

<sup>91</sup> Krugler *Only a Test*, Introduction.

<sup>92</sup> Rose, *Underground*, 119.

<sup>93</sup> *ibid*, Chapter 2.

by suggesting to the enemy an attack would produce little result.<sup>94</sup> David Monteyne has argued that dispersal also served as a process of selection that would emphasize, and ensure the survival of, the idealized American national identity: white, male, and patriarchal.<sup>95</sup> In Britain, dispersal took several forms, from limiting the size of air raid shelters to physically removing vulnerable populations from areas of danger. In Cold War America, threatened by a weapon that would wreak destruction for many miles, dispersal was not as easy, but nevertheless was a major theme. Dispersal operated on a much larger scale, as the potential radius of destruction of an atom bomb was significantly larger than conventional bombs.<sup>96</sup>

To demonstrate not only that WWII civil defense served as a blueprint to later civil defense schemes, but also that poison gas anxiety served as a particular tool for the implementation and success of civil defense, this dissertation will explore several aspects of British civil defense. Chapter 2 explores the historical background of chemical warfare and how such weapons were adopted into the British public consciousness. Additionally, this chapter demonstrates the rising concern among the population and the British government that poison gas would be used against civilians. Chapter 3 deals with the general protection of civilians from enemy attack, from WWI through WWII. The particular focus is the government's plans for instruction, training, and ARP measures to ensure that civilians knew how to protect themselves from harm. Chapter 4 provides a detailed examination of the various civil defense services, such as air raid wardens, auxiliary firefighters, and first aid parties, and their roles in the overall scheme of the

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<sup>94</sup> Vanderbilt, *Survival City*, 76.

<sup>95</sup> Monteyne, *Fallout Shelter*, Chapter 1 (Loc 333).



home front war effort. Chapter 5 discusses the British gas mask program in WWII that distributed masks to every man, woman and child. Additionally, this chapter provides a historical overview of British gas masks from WWI through WWII and the persistent issues and concerns in developing and providing masks for the population. Chapter 6 deals entirely with the physical protection of civilians and the British shelter program. This chapter discusses the various types of shelters available to British civilians, such as communal or domestic shelters, and the many ways in which the government and civilians themselves sought to make shelter life more comfortable. Chapter 7 focuses on the social aspects of wartime living and civil defense, particularly issues of class and national origin. Additionally, the chapter explores how vulnerable populations, such as women and children, fitted into civil defense schemes. These components of British civil defense not only protected civilian lives during WWII, but they also served as a vital ‘dry-run’ for the civil defense programs of the Cold War.

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<sup>96</sup> For more on themes of dispersal in American civil defense see Boyer, *Bomb*; Vanderbilt, *Survival City*; Krugler, *Only a Test*; Monteyne, *Fallout Shelter*; Rose, *Underground*; Garrison, *Armageddon*.



## Chapter 2 - “The Very Devil:” World War I Chemical Warfare and its Legacy

The first use of chemical weapons in war occurred on April 22, 1915 on the Ypres salient in Belgium. Here, the Germans deployed chlorine gas against the Allies and while the attack caused significant casualties, it did not prove more than a limited tactical success. Similarly, subsequent uses of chemical weapons by either side in WWI did not materially alter the outcome of the war, grand strategy, or even individual battles. Despite the transient tactical advantage chemical weapons provided and their limited impact in inflicting casualties, poison gas occupied the minds of military commanders and civilians almost immediately. The idea of a silent killer that stalked the unaware across battlefields, a weapon that choked, burned, and blinded its victims, had taken a hold of the public consciousness. Additionally, the advent of aerial warfare brought another dimension to the potential usage of chemical weapons — attacks against civilian populations on the home front. Newspapers and popular magazines served a particular role in inculcating the fear of poison gas in the public consciousness and in creating the specter of a sinister threat that exerted disproportionate sway both during and after WWI.

Although chemical weapons were used for the first time in 1915, apprehension over the deployment of such weapons had existed in prior decades. The Hague Convention in 1899, especially, sought to prohibit the potential use of weapons of war deemed “contrary to the laws of humanity.”<sup>1</sup> Article 23 prohibited the use of poison, poisoned arms, and

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<sup>1</sup> T.E. Holland, *The Laws and Customs of War on Land as Defined by the Hague Convention of 1899* (London: Harrison and Sons, 1904), 28.

weapons “of a nature to cause superfluous injury.”<sup>2</sup> The subsequent Declaration II more specifically prohibited the use of “projectiles the object of which is the diffusion of asphyxiating or deleterious gases.”<sup>3</sup> Neither the British nor the American delegates signed the poison gas provision, a fact welcomed by some commentators during the Second Boer War when Britain was fighting an enemy not bound by any part of the Convention.<sup>4</sup> The British armed forces already had their eye on a new weapon, called “Taxpayer,” which was rumored to be a rocket projectile more powerful than the best contemporary guns, powerful enough to sink an ironclad with one hit, and releasing asphyxiating gas upon impact.<sup>5</sup> An American writer imagined a future war between America and Britain where a noxious cloud of “greenish white fog” envelops the battling fleets, suffocating everyone on deck, the survivors and their ships left adrift and ramming into one another aimlessly.<sup>6</sup> One British chemist’s speculations about gas weapons in 1900 read more like science fiction than science: a bomb that would release a gas to create a forty to sixty yard radius of temperatures so low anyone walking through would instantly freeze to death, a gas that would quadruple a man’s heartbeat until his blood vessels burst, and a bomb containing a sleeping gas that could render unconscious an entire city.<sup>7</sup> Actual science fiction writers, too, used the idea of a noxious gas to terrify. The most popular example, perhaps, being H.G. Wells’ 1898 novel *War of the Worlds*, where Martian

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<sup>2</sup> International Conferences (The Hague) *Hague Convention (II) Laws and Customs of War on Land*, Section II, Chapter I, Article 23 (July 29, 1899) available at [http://avalon.law.yale.edu/19th\\_century/hague02.asp#art1](http://avalon.law.yale.edu/19th_century/hague02.asp#art1) (accessed April 28, 2015).

<sup>3</sup> International Conferences (The Hague) *Declaration II - on the Use of Projectiles the Object of Which is the Diffusion of Asphyxiating or Deleterious Gases* (July 29, 1899) [http://avalon.law.yale.edu/19th\\_century/dec99-02.asp](http://avalon.law.yale.edu/19th_century/dec99-02.asp) (accessed April 28, 2015).

<sup>4</sup> “New Weapons of Warfare,” *Dundee Evening Post*, February 1, 1900.

<sup>5</sup> “The War, Powerful, If True,” *Cheltenham Chronicle*, June 18, 1898.

<sup>6</sup> James Barnes, *The Unpardonable War* (New York: Macmillan Company, 1904), 223 - 225.

invaders fire canisters that, instead of exploding, discharge a black vapor which spreads across the countryside and the “touch of that vapour, the inhaling of its pungent wisps, was death to all that breathes.”<sup>8</sup> Although before WWI such weapons were still fictional, ideas about systems that might cause instant and invisible death may certainly have impacted the public long before chemical weapons were actually used.

In the months prior to the Second Battle of Ypres, reports in British newspapers were already stoking fear in the public over weapons that had yet to be used—and, in their reported form, did not even exist. A news report in early April 1915 suggested the Germans were practicing the use of new asphyxiating gas grenades on dogs.<sup>9</sup> Newspapers also leaked reports of German POWs who divulged to their Allied captors secret plans to release gas from buried cylinders against enemy trenches.<sup>10</sup> Headlines of these reports ranged from the factual and direct, “Suffocating Gases: New German Threat” or “A Modern Battle,” to the more provocative “The Suffocation Plan” and “To Choke Our Men”.<sup>11</sup>

By the end of the war in 1918 poison gas had become a commonly-used tool in the arsenals of the belligerent nations, Great Britain and Germany, especially. Chlorine gas, effective in its initial use but soon negated through the use of proper protective equipment, was supplanted by new chemical weapons that exacted a horrifying effect on the human body. Phosgene, like chlorine, attacked the lungs and caused inflammation

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<sup>7</sup> “New Weapons of Warfare,” *Dundee Evening Post*, February 1, 1900.

<sup>8</sup> H.G. Wells, *The War of the Worlds* (1898, Kindle Version), 82.

<sup>9</sup> “Trials With Asphyxiating Bombs,” *Edinburgh Evening News*, April 6, 1915.

<sup>10</sup> “Asphyxiating Gas,” *Aberdeen Journal*, April 9, 1915.

<sup>11</sup> “Suffocating Gases: New German Threat,” *Hull Daily Mail*, April 9, 1915; “A Modern Battle,” *Coventry Evening Telegraph*, April 9, 1915; “The Suffocation Plan,” *Falkirk Herald*, April 10, 1915; “To Choke Our Men,” *Sunderland Daily Echo and Shipping Gazette*, April 9, 1915.

that drowned the victim in his own fluids.<sup>12</sup> Lachrymators, such as K.S.K., C.A.P., and B.B.C., caused profuse tearing of the eyes and pain, to the point where vision became impossible.<sup>13</sup> Chloroarsine gases like D.M. were not lethal on their own, but produced intense pains in the throat and chest, nausea, headaches, and mental depression, causing considerable temporary disability.<sup>14</sup> The gas most symbolic of WWI, and its most effective chemical weapon, was mustard, a vesicant gas that caused blisters and burns to the skin of anyone who came into contact with it.<sup>15</sup> The Germans systematically color-coded their gas shells: Yellow Cross for mustard, Blue Cross for chloroarsines, and Green Cross for phosgene and diphosgene.<sup>16</sup> While initially attacks were made by releasing the gas from cylinders placed in the trenches, by mid-1916 the combatants were firing lethal gas shells.<sup>17</sup>

While contemporary and modern scholars have often argued that the use of gas was ineffective, it is difficult to discern the true impact of chemical weapons based on casualty statistics alone. Casualty statistics include only those treated at Casualty Clearing Stations or Field Ambulances, but some soldiers may have been mildly gassed without seeking treatment. In the confusion of a battlefield the Field Medical Card, filled

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<sup>12</sup> The National Archives (UK): WO 142/271, Major Sall, *Chemical Warfare*, “Chapter I War Gases,” n.d., 12.

<sup>13</sup> *ibid*, 14-16.

KSK was the pure form of Ethyl Iodo-acetate, although the British forces more commonly used SK, a mix of the pure form and alcohol. Both were used in projectiles and bombs. Chloroaceto-phenone, or CAP, was a white solid that could be poured into candles.

<sup>14</sup> TNA: WO 142/271, Major Sall, *Chemical Warfare*, “Chapter I War Gases,” n.d., 15.

The two organic arsenical compounds, di-phenyl-chloro-arsine (DA) and Diphenylamine chloroarsine (DM), were used as toxic smokes.

<sup>15</sup> *ibid*, 10.

<sup>16</sup> TNA: WO 32/5180, *Note on the Total Casualties Caused in the British Forces by Gas Warfare*, Jan. 17, 1919, 4.

<sup>17</sup> TNA: WO 32/5180, *Report by Lt. Col. Douglas on Enemy's Use of Gas*, 28 Jan. 1919, 2.

out by medical personnel at aid stations, may have been filled out erroneously or inadequately.<sup>18</sup> Other soldiers may have suffered from serious physical wounds and were counted as a shell or bullet casualty although they may also have been gassed. Additionally, it was not always possible to tell whether a soldier who had died had been gassed, especially if he also suffered from other injuries. Some gassed casualties may have been taken prisoner by the enemy and never counted. Casualty statistics are particularly lacking for the early gas attacks in April and May 1915.<sup>19</sup> Casualty statistics also do not account for the harassing and neutralizing power of gas. Soldiers wearing cumbersome masks or other anti-gas equipment are less efficient than soldiers without such paraphernalia.<sup>20</sup> Fear and anxiety can also seriously hinder the effectiveness of troops and just the thought that gas could be present often caused apprehension in soldiers.

Casualty statistics show that gas was less lethal than conventional weapons of war. Prior to July 1917, gas casualties accounted for just under 2% of all British casualties in the war.<sup>21</sup> After the introduction of mustard gas this number rose alarmingly to 14%, yet gas-related deaths accounted for only 2% of the overall British combatant fatalities in WWI.<sup>22</sup> Just over 3% of all 180,981 British gas victims that had been counted by the end of the war died.<sup>23</sup> The French, however, with less effective anti-gas protection than the

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<sup>18</sup> TNA: WO 32/5180, *Note on the Total Casualties Caused in the British Forces by Gas Warfare*, Jan. 17, 1919, 3.

<sup>19</sup> *ibid*, 5.

<sup>20</sup> TNA: WO 189/1584, *Effects of Prolonged Wearing of Respirator*, Porton Report No. 144, March 25, 1924.

<sup>21</sup> TNA: WO 32/5180, *Note on the Total Casualties Caused in the British Forces by Gas Warfare*, Jan. 17, 1919, 40.

<sup>22</sup> *ibid*, 42.

<sup>23</sup> TNA: WO 32/5951, *Precis of Report on British Gas Casualties*, Dec. 17, 1918, 1-2.

British, were a preferred gas target of the Germans and this combination of poor equipment and frequent attack may have caused a gas mortality rate as high as 20%.<sup>24</sup>

Mustard gas was the most effective chemical weapon used by either side in the war. First used in July 1917 by the Germans against the British, mustard gas caused more British casualties in its year of use than all the other gases combined.<sup>25</sup> Between the first use of mustard gas in 1917 and the end of the war, a total of over 160,000 gas casualties were admitted to medical units, over 77% of these were mustard gas cases, although this number may be higher due to underreporting.<sup>26</sup> Mortality rates for mustard poisoning may not always be accurate because of the long period between exposure and death, as well as the underreporting of cases, however, the mortality rate of gas shell victims during the yellow cross period was 2.6%, less than half the gas mortality rate of the period before mustard was used.<sup>27</sup> The effectiveness of mustard gas lay in its casualty-producing power, not its killing power. While estimates suggested 80% of mustard casualties could be returned to duty in eight weeks, the average mustard gas case was unfit for duty for two to three months; this meant a significant loss of manpower for the British Army for often lengthy periods of time.<sup>28</sup>

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<sup>24</sup> TNA: WO 32/5180, *Note on the Total Casualties Caused in the British Forces by Gas Warfare*, Jan. 17, 1919, 8.

<sup>25</sup> *ibid*, 19.

<sup>26</sup> *ibid*.

<sup>27</sup> *ibid*, 24.

<sup>28</sup> *ibid*, 30.



One British officer claimed mustard gas shelling was the first “undoubted success” the Germans had had with gas.<sup>29</sup> *Sall’s Manual of Chemical Warfare* referred to mustard gas as the most effective casualty-producing agent.<sup>30</sup>

How did a weapon that was seemingly ineffective and actually less lethal compared to other weapons of modern war come to be vilified and feared long after its last use in a major conflict? Media coverage of gas weapons, via newspapers, magazines, paintings, photographs, novels, and radio, strongly influenced public opinion in Britain almost immediately after Second Ypres. The experiences of soldiers in the trenches who had been gassed or lived through a gas attack also contributed to how the public at large came to see the new weapon. Additionally, the very nature of chemical weapons, conjuring fears of invisible killers and suffocation, added to their extremely negative perception. It was a weapon that seemed inherently more unfair and horrifying than conventional weapons such as bombs or bullets. The media coverage of gas weapons in WWI ensured that chemical warfare entered the public consciousness as something to be feared and set the tone for how the public and government decision-makers alike would come to dread its use in the interwar years and WWII.

After Second Ypres Germany was immediately vilified in the press for using chemical weapons. Because Germany had signed the Hague Convention’s ban on poison gas their very use of this weapon, and the gas’s horrifying effects, provided new impetus to the depiction in British media of an especially treacherous enemy.<sup>31</sup> The use of asphyxiating gases ran counter to all rules of warfare, wrote one paper, and directly defied the Hague

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<sup>29</sup> TNA: WO 32/5180, *Report by Lt. Col. Douglas on Enemy’s Use of Gas*, 28 Jan. 1919, 2.

<sup>30</sup> TNA: WO 142/271, Major Sall, *Chemical Warfare*, “Chapter I War Gases,” n.d., 10.

<sup>31</sup> “Deliberate Breach of Hague Convention,” *Sunderland Daily Echo*, April 24, 1915.

Convention.<sup>32</sup> One special correspondent wrote that subsequent to the use of poison gas at Ypres, Britain and her allies were “no longer fighting against a nation, but against a scourge such as cholera or pest.”<sup>33</sup> A headline in the *Daily Mirror* read “Devilry, Thy Name Is Germany.”<sup>34</sup> A captured German soldier was reported to have laughed at the suffering of gassed British troops struggling for breath as he was led past.<sup>35</sup> While reports of the enemy killing prisoners or the unarmed were common on both sides, at Ypres the Germans taking the gas-heavy trenches were accused of telling suffocating Allied soldiers to lie down, where the gas concentration was highest, in order to “die better<sup>36</sup>.” Similarly, a lack of clear understanding of chlorine gas, amongst soldiers in particular, led some to believe the gas had simply put soldiers to sleep, where they were then bayoneted by the Germans entering the trenches.<sup>37</sup> Some British troops reported that the gas attacks personalized their anger against the Germans, while one soldier was now convinced of supposed German war atrocities in Belgium after having been gassed himself.<sup>38</sup>

Newspaper reports detailed the horrors of a weapon that seemed to kill without leaving visible wounds and the suffering of those who had been exposed. The *Daily Mirror* ran an image in May 1915 claiming to depict gassed soldiers unconscious in a

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<sup>32</sup> “Second Battle for Calais,” *Taunton Courier*, April 28, 1915.

<sup>33</sup> “Deadly Gas,” *Liverpool Echo*, April 26, 1915.

<sup>34</sup> “Devilry, Thy Name Is Germany: Soldiers, Trapped By Gas Cloud, Lie Unconscious in the Trenches,” *The Daily Mirror* (UK), May 21, 1915.

<sup>35</sup> “German Atrocities,” *Times* (London), May 26, 1915.

<sup>36</sup> “Deadly Gas,” *Liverpool Echo*, April 26, 1915.

<sup>37</sup> “Put to Sleep With Poisonous Gases,” *Dundee Evening Telegraph*, April 27, 1915.

<sup>38</sup> “The British Resistance to the Enemy’s Rush, (Exchange Telegraph Company’s Telegram). With the British Army in Northern France,” *Yorkshire Post*, April 27, 1915.

trench.<sup>39</sup> While it is impossible to tell from the image whether the soldiers depicted had been gassed or were merely sleeping, the image worked to convey to the British public the idea of an unstoppable, invisible weapon, that left no marks on the bodies it touched. A chaplain of a regiment annihilated at Ypres summed up best the fear this new weapon evoked: “War! Glorious war! Not one of these men even saw an enemy; they had no chance to fight man to man, but were killed like poisoned rats in a trap.”<sup>40</sup> Sir John French, Commander of the British Expeditionary Force, in describing the attack at Second Ypres, was quoted as saying: “What follows almost defies description. The effect of these poisonous gases was so virulent as to render the whole of the line [...] practically incapable of any action at all. The smoke and fumes hid everything from sight, and hundreds of men were thrown into a comatose and dying condition[...].”<sup>41</sup> Survivors of gas attacks described the spectacle of a greenish cloud drifting along the ground towards them, as tall as a man, with an acrid smell that burned their lungs. Many fled and were found later dead on the sides of the road with no visible injuries.<sup>42</sup> Men who thought they had escaped the gas clouds often died more than a day later from its effects, only contributing to the fearsome reputation of this invisible killer.<sup>43</sup> Sir John French countered German claims that the gas was painless, arguing instead that its victims suffered acutely and a large number of the cases died a “painful and lingering death.”<sup>44</sup>

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<sup>39</sup> “Devilry, Thy Name Is Germany: Soldiers, Trapped By Gas Cloud, Lie Unconscious in the Trenches,” *The Daily Mirror* (UK), May 21, 1915.

<sup>40</sup> William Alderson, “The Silent Death: Being the First Comprehensive Description of Warfare with Asphyxiating Gas,” *Frank Leslie’s Weekly*, January 13, 1916.

<sup>41</sup> Henry Sydnor Harrison, “Rhetorical War Pictures,” *New York Times*, October 8, 1915.

<sup>42</sup> “Inhuman Warfare,” *Nottingham Evening Post*, April 29, 1915.

<sup>43</sup> “Germans Now Firing Gas In 17In. Shells - Terrible Effects,” *Nottingham Evening Post*, April 29, 1915.

<sup>44</sup> “British May Employ Gas in Retaliation,” *New York Times*, May 5, 1915.

John Scott Haldane, a Scottish scientist renowned for his work on the causes of mining disasters and eventual inventor of the British gas mask, was sent to the front to examine the Canadian victims of the first gas attack. Upon arriving at the casualty clearing station Haldane found the victims struggling to breathe and blue in the face. He determined the deaths were the result of a slow asphyxiation and called the use of the gas “brutally barbarous.”<sup>45</sup>

While Haldane and French’s observations were relatively subdued, other correspondents ensured readers could fully visualize the horrific nature of the new weapon. A gassed officer of the Royal Dublin Fusiliers referred to poison gas as “the very devil.”<sup>46</sup> One unnamed *Times* correspondent wrote specifically to inform the world of this new horror after visiting French Senegalese troops who had been gassed at Ypres. The victims, he wrote, sat propped up against walls, “with mouths open and lead-glazed eyes, all swaying slightly backwards and forwards trying to get breath.”<sup>47</sup> Gas warfare, the correspondent informed the British public, was the “most awful form of scientific torture.”<sup>48</sup> A Canadian private described the suffering of gassed soldiers, who had fled without rifles and equipment, falling over on the road, tearing at their eyes and chests, kicking and struggling until they died. “Tell you what,” he added, “it was just like a fish does when you take him out of the water.”<sup>49</sup> Another correspondent wrote of those fortunate enough to survive the gas coughing and spitting blood, while the dead left

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<sup>45</sup> “Inhuman Warfare,” *Nottingham Evening Post*, April 29, 1915.

<sup>46</sup> “A Week Under Fire, A Victim of Gases,” *Times* (London), May 6, 1915.

<sup>47</sup> “What Gas Means,” *Times* (London), May 7, 1915; “Urge That British Use Poison Gas Too,” *New York Times*, May 7, 1915.

<sup>48</sup> *ibid.*

<sup>49</sup> William Alderson, “The Silent Death: Being the First Comprehensive Description of Warfare with Asphyxiating Gas,” *Frank Leslie’s Weekly*, January 13, 1916.

behind “turned black at once.”<sup>50</sup> Some victims showed no significant symptoms until thirty hours after exposure they suddenly developed severe pneumonia, their bodies turning purple.<sup>51</sup> The gas’s effects were so horrific, one paper suggested that the Germans ought to fire diphtheria, enteric fever, or cholera germs instead.<sup>52</sup> French writer Pierre Loti gave a detailed account of the suffering of gas victims, translated and printed by the *New York Times* in 1916. Loti described a makeshift field hospital housing gas victims as a place of “horror which one would think Dante had imagined,” where stoves burned furiously to ease the patients’ labored breathing, and men “who are struggling in agony stretch out their poor hands to beg for [air balloons filled with oxygen].”<sup>53</sup> The most seriously injured, he wrote, swollen in the chest, face, and limbs, looked like “India rubber dolls blown up.”<sup>54</sup>

The media also contributed to society’s newfound fear over chemical weapons in other ways. Just days after the initial chlorine gas attack, the British War Office issued a call to the public for homemade respirators that could be sent to troops at the front. Although dubbed the “*Daily Mail* Respirator,” the call for this early type of gas mask ran in other publications as well, asking the public to make pads of bleached cotton-wool to cover nostrils and mouth.<sup>55</sup> The public’s response was overwhelming: Families, hospitals, girls’ schools, and women’s societies all rose to the occasion and wagon-loads of respirators arrived at the Royal Army Clothing Factory. Churches used their weekly

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<sup>50</sup> “Deadly Gas,” *Liverpool Echo*, April 26, 1915.

<sup>51</sup> “Germans Now Firing Gas In 17In. Shells - Terrible Effects,” *Nottingham Evening Post*, April 29, 1915.

<sup>52</sup> “Germans Now Firing Gas In 17In. Shells - Terrible Effects,” *Nottingham Evening Post*, April 29, 1915.

<sup>53</sup> Pierre Loti, trans. Charles Johnston, “Loti Tells Gas Horrors,” *New York Times*, February 13, 1916.

<sup>54</sup> *ibid.*

<sup>55</sup> “Respirators Wanted,” *Times* (London), 28 April 1915.

collection to purchase materials and make respirators.<sup>56</sup> Just one day after issuing the request for half a million respirators, the War Office made an official announcement that needs had been met.<sup>57</sup> Such calls to public action not only allowed the British public to contribute in some way to the war effort, but here it also cemented in the national consciousness the horrors of a new type of weapon that could asphyxiate unprotected troops. Although the *Daily Mail* Respirator was ineffective (even dangerous as it could cause asphyxiation) and was recalled almost immediately from the front, its importance lay not in providing protection for the troops, but in forcing the British public to interact with the concept of chemical weapons.<sup>58</sup>

The public and government also quickly realized the potential of this new weapon to be a direct threat to civilians. With the advent of aerial warfare and the ever-increasing range of planes and airships, civilians suddenly became potential targets. German zeppelin bombing raids, while limited in scope and destructiveness, had done enough damage to cement a newfound fear of aerial raids in the British public.<sup>59</sup> Although there is no record of chemical weapons being used on civilians during this war, the potential of such an attack became readily apparent. Civilians, having been introduced to the menace of chemical warfare through the experiences of soldiers and their mobilization in the war effort, suddenly had to worry about their own safety from poison gas. The Chemical Warfare Department discussed what the public ought to be told in the case the Germans were to start “dropping poison in London.”<sup>60</sup> To use poison gas in London, one member

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<sup>56</sup> “Baptist Unity,” *Times* (London), April 30, 1915.

<sup>57</sup> “Respirators Supplied,” *Times* (London), 30 April, 1915.

<sup>58</sup> “House of Commons, Respirators,” *Times* (London), 7 May 1915.

<sup>59</sup> “Two More Air Raids, Official Reports,” *Times* (London), October 1, 1917.

<sup>60</sup> TNA: HO 45/10883/344919, Chemical Warfare Department, *Minutes*, May 18, 1918, 1.

of the department argued, would be “sheer civilian slaying” but did not think this would deter the Germans.<sup>61</sup>

British newspapers almost immediately combined the legitimate threat of zeppelin bombing with the less-realistic use of chemical weapons. Just a few months after Second Ypres rumors circulated that the Germans had developed, and were testing over the Baltic, a “gas-emitting zeppelin,” that was heavily armored, with several reservoirs to hold poison gas.<sup>62</sup> Other reports claimed the new zeppelin was also fitted with a new “bomb dropping apparatus,” and could drop its poisonous load mechanically, while a small crew worked to fill more bombs with gas.<sup>63</sup> While the majority of these reports left the potential of a civilian gas attack unspoken, others specifically informed readers that these new zeppelins were intended for the “proposed ‘aerial invasion’ of England.”<sup>64</sup> Officials fully expected zeppelins, already dropping explosive and incendiary bombs on Britain, to employ asphyxiating gases on the civilian population, as well.<sup>65</sup> When, in October 1917, bombs from an air raid in Shoreditch released noxious fumes that affected sheltering civilians and even killed a ten week old baby, it gave renewed weight to claims that the Germans would carry out gas attacks against civilians.<sup>66</sup>

Chemical weapons had earned a negative reputation during the war and ultimately became the only one of the new war technologies to be banned. Gas weapons were seen

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<sup>61</sup> *ibid*, 2.

<sup>62</sup> “Gas-Emitting Zeppelin,” *Leader* (Orange, NSW), June 7, 1915; “New Giant Zeppelin,” *Manchester Evening News*, June 4, 1915.

<sup>63</sup> “Poison Gas Zeppelins,” *Huddersfield Daily Examiner*, June 7, 1915.

<sup>64</sup> *ibid*.

<sup>65</sup> “Anti-Zeppelin Precautions,” *Western Daily Press*, June 9, 1915; “Scotland Yard’s Warning to Londoners,” *The Whitstable Times and Tankerton Press*, May 29, 1915.

<sup>66</sup> TNA: HO 45/10883/344919, Kent County Constabulary, *Inquest*, October 4, 1917, 1.

as an unchivalrous form of warfare, able to be deployed from cover and out of sight. British Lt. Gen. Charles Ferguson referred to chemical weapons as a “cowardly form of warfare.”<sup>67</sup> Newspaper and eyewitness reports had driven home the idea of poison gas as an inhumane weapon that silently choked or burned its victims without their knowledge. The London Medical Society called for a prohibition against chemical weapons.<sup>68</sup> By 1925, 27 nations had signed a ban on gas weapons, including Great Britain and Germany.<sup>69</sup> While official opinions were often split on the use of gas weapons, public opinion was overwhelmingly against chemical warfare. Imagery of troops in gas protective equipment, their human features all but obscured, also impacted public perception of the new weapon. One writer worried that, because “chemistry makes no attempt to preserve manly beauty,” women would find it especially difficult to deal with a war where poison gas would obscure the features of their husbands and sons.<sup>70</sup>

Not all agreed with the notion of gas as inhumane. One officer argued that the mortality of gas was much lower than that of shell wounds and the suffering it caused not necessarily greater. He added that if gas were to be abolished it would have to be on grounds other than its inhumanity.<sup>71</sup> The Commandant of the Royal Engineers claimed that calls to abolish gas were based on “foolish sentimentalism” and that gas was actually the most humane weapon used in war, because it led to a decision with the least amount

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<sup>67</sup> Quoted in Cook, *No Place to Run*, 37.

<sup>68</sup> “Weapons in the Next War,” *New York Times*, December 8, 1918.

<sup>69</sup> “Nations Sign Arms Compact,” *Christian Science Monitor*, June 17, 1925.

<sup>70</sup> “The War of Tomorrow,” *New York Times*, September 25, 1921.

<sup>71</sup> TNA: WO 32/5180, *Report by Lt. Col. Douglas on Enemy’s Use of Gas*, 28 Jan. 1919, 4.



of human suffering.<sup>72</sup> A scientist argued poison gas was misunderstood and represented the most humane weapon of war, citing the low mortality rate of gas casualties as proof.<sup>73</sup>

Whether seen as a horrible and cowardly scourge or as an effective and humane weapon, all those who talked about poison gas assumed it would play a significant role in future wars. American Maj. Gen. William Sibert, Director of the Chemical Warfare Service at the end of WWI, considered chemical weapons one of the most effective instruments of war and that they would play an important part in any future conflict.<sup>74</sup> Months before the Treaty of Versailles, there already existed a collective fear over the use of new war technologies on a grander, more destructive scale in a future conflict. Lord Grey, Britain's foreign secretary, suggested that in the next war there would be no fighting in the normal sense and everything would be done by poison gas.<sup>75</sup> Others suggested poison gas had proven superior to explosives and that a future war had the potential to be a war of gas entirely.<sup>76</sup> Speculations saw the poison gas of the future as colorless, odorless, packed into compact pill form and able to be shot from guns or hidden in the ground, with the power to contaminate acres of land for months, forcing infantrymen to stagger about hidden behind masks and rubber coats.<sup>77</sup> The Germans were rumored to have invented a gas that remained deadly for up to eight days and could be sprayed in a dried form from airplanes, making the strategic occupation of territory

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<sup>72</sup> "Poison Gas More Humane," *Hartlepool Northern Daily Mail*, February 6, 1936.

<sup>73</sup> "Poison Gas. Scientist on 'Most Humane' Form of Warfare," *Hartlepool Northern Daily Mail*, July 13, 1931.

<sup>74</sup> "Future War Gas Service," *New York Times*, July 27, 1919.

<sup>75</sup> "The Next War Will Be All Poison Gas," *Yorkshire Evening Post*, December 24, 1919.

<sup>76</sup> "The War of Tomorrow," *New York Times*, September 25, 1921.

<sup>77</sup> *ibid.*

nearly impossible for troops.<sup>78</sup> One American speculated a future war where scientists piloted unmanned wireless planes with the capability to drop poison gas onto vast amounts of the civilian population.<sup>79</sup> The somewhat sensational *Liberty Magazine* dedicated several pages to speculation on a horrific future poison gas war in Europe. The nation under attack, the magazine wrote, would not know what had happened until “the streets and homes, cellars and subways, houses and business buildings of some great city [are] filled with gasping, twisting, choking men, women, and children or littered with tens and perhaps hundreds of thousands of dead [...]”<sup>80</sup>

The news media also ensured the public was reminded of the danger of poison gas even during peacetime. The plight of veterans who had been gassed during the war regularly received public mention after 1918. A case of a veteran destroying his house, attempting to murder his wife, and ultimately committing suicide, was attributed to his exposure to chemical weapons during the war. The coroner suggested poison gas victims were often “afflicted with impulsive insanity.”<sup>81</sup> The British Legion, aiming to abolish the seven years’ time limit a soldier had to file for disability pension, drew attention particularly to gas poisoning victims, whose condition often deteriorated most noticeably when they were outside the time limit.<sup>82</sup> Soldiers who succumbed to gas injuries years after the war still received attention in the papers, with headlines that could have stemmed from the war as easily as from the 1920s or 1930s. One disabled veteran, who

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<sup>78</sup> “New Gas-Filled Powder Held Deadly For 8 Days,” *New York Times*, September 19, 1934.

<sup>79</sup> William Slavens McNutt, “Will There Be a ‘Next War?’” *Frank Leslie’s Weekly*, July 2, 1921.

<sup>80</sup> William G. Shepard, “Not Even Profiteers Safe in the Next War,” *Liberty Magazine*, December 13, 1924, 1-3.

<sup>81</sup> “Poison Gas and Insanity,” *Yorkshire Evening Post*, June 14, 1919.

<sup>82</sup> “Disability Pensions,” *Hartlepool Mail*, November 6, 1928.

died more than ten years after the end of the war, had his death directly attributed to gas poisoning suffered in 1918. The *Lancashire Evening Post* ran coverage of his death not as an obituary, but as an article under the headline “Accrington Man Succumbs to Effect of Gas Poisoning.”<sup>83</sup>

Reports also suggested poison gas was dangerous by itself, without anyone’s intent to use it as a weapon. Chemical factory explosions often made headlines. A French chlorine gas factory exploded in 1926, killing 19.<sup>84</sup> An explosion at a chemical factory in Germany spread green clouds of poisonous gas into nearby towns and necessitated the wearing of masks for relief workers. As many as 1,500 died in the explosion and subsequent gas release, leading to some in London to issue renewed calls for chemical disarmament.<sup>85</sup> In 1920, a British worker handling scrap metal drums died from exposure to the mustard gas the drums had once contained. The Ministry of Munitions, seeking to deflect all blame, claimed all usual methods of neutralizing chemical agents had been followed, but must not have been sufficient.<sup>86</sup> Just a few years later large quantities of German Blue Cross gas shells were buried in a moor near Cologne, yet fears over continued dangers led German officials to close the moor for a period of 30 years.<sup>87</sup> In the *Times* report of the incident, the paper ensured its readers understood the implacable dangers of poison gas, explaining that even though the shells had been neutralized, burned, buried, disinterred, and reburied in a special concrete coffin, they

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<sup>83</sup> “Accrington Man Succumbs to Effect of Gas Poisoning,” *Lancashire Evening Post*, February 19, 1931.

<sup>84</sup> “Poison Gas Explosion,” *Hull Daily Mail*, December 14, 1926.

<sup>85</sup> “The Oppau Explosion,” *Mercury* (South Africa), September 24, 1921.

<sup>86</sup> “Killed by Mustard Gas,” *Times* (London), August 3, 1920.

<sup>87</sup> “Buried Poison Gas,” *Times* (London), April 7, 1934.

could not be rendered completely harmless.<sup>88</sup> Such instances suggested to the public that poison gas was so dangerous, that once in existence it could never be destroyed or made safe.

Newspapers were not the only medium, however, that ensured citizens understood the horror of chemical weapons. In the aftermath of WWI former soldiers from both sides published their war experiences in the forms of diaries, memoirs, poems, and novels. In Erich Maria Remarque's popular novel *All Quiet on the Western Front*, the protagonist finds himself in a graveyard during a gas attack, combining imagery of fear, gas, and death in an eerie scene.<sup>89</sup> The narrator also describes the suffering of gassed soldiers who "cough up their burnt lungs in clots" and he is later gassed himself.<sup>90</sup> Wilfred Owen's anti-war poem *Dulce et Decorum Est* vividly described the agonizing death of a gassed soldier. In *Goodbye to All That*, British officer Robert Graves detailed his experiences at the Battle of Loos, where the British use of gas turned out disastrously for their own men because of a headwind.<sup>91</sup> Correspondent Frederic Villiers illustrated his experiences on the front with various sketches. His sketch of the first gas attack at Ypres depicts the cloud of chlorine gas as a force strong enough to knock soldiers off their feet.<sup>92</sup> Other sketches included soldiers in a trench putting on their respirators, canisters leaking gas into French trenches, and French soldiers soaking hay in hypo sulfate solution as an early form of gas protection.<sup>93</sup> While these published materials spoke of soldiers' experiences,

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<sup>88</sup> *ibid.*

<sup>89</sup> Erich Maria Remarque, *All Quiet on the Western Front* (New York: Random House, 2013), 52-54.

<sup>90</sup> *ibid.*, 53, 213.

<sup>91</sup> Robert Graves, *Goodbye to All That* (New York: Vintage International, 1998), 146-155.

<sup>92</sup> Frederic Villiers, *Days of Glory: The Sketchbook of a Veteran Correspondent at the Front* (New York: George H. Doran Company, 1920), 93.

<sup>93</sup> *ibid.*, 161, 181, 189.

civilians could easily extrapolate such dangers into their own lives, particularly in light of the war's civilian casualties and technological advances in aviation after 1918.

Fiction also made use of the idea of poison gas. Olaf Stapleton's 1930 novel *Last and First Men* tells the story of a devastating war where bomber fleets deploy large amounts of poison gas against the cities of Europe, ultimately leaving the continent practically uninhabited.<sup>94</sup> H.G. Wells speculated on the future of gas warfare in *The Shape of Things to Come*, telling the reader from the perspective of a writer in the 22<sup>nd</sup> century about "past" wars where gas was used and developments in chemical warfare, such as gases which "[...] killed instantly and cruel and creeping poisons that implacably rotted the brain. Some produced convulsions and a knotting up of the muscles [...]." <sup>95</sup> A Permanent Death Gas turned a several square mile area of East Prussia into a death zone that no one dared enter for several decades.<sup>96</sup> Cicely Hamilton's dystopian *Theodore Savage* imagined a future aerial war that collapses British civilization. It described refugees fleeing the war as "a horde of human rats driven out of their holes by terror, by fire and by gas."<sup>97</sup> The government had failed to provide its civilians with gas masks, ultimately dooming them to death.<sup>98</sup> When the protagonist comes across a village filled with bodies he finds that "These people had died suddenly, in strange contorted attitudes—here

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<sup>94</sup> Olaf Stapleton, *Last and First Men* (Harmondsworth, Eng.: Penguin Books, 1972).

<sup>95</sup> H.G. Wells, *The Shape of Things to Come* (Adelaide: University of Adelaide eBook, 2006), Book the Second, The Days After Tomorrow, Chapter 4: Changes in War Practice After the World War.

<sup>96</sup> *ibid.*

<sup>97</sup> Cicely Hamilton, *Theodore Savage: A story of the past or the future* (London: Leonard Parsons, 1922), 75.

<sup>98</sup> *ibid.*, 76.

crouching, there outstretched with clawing fingers. Gas, he supposed—a cloud of gas rolling down the street before the wind—and perhaps not a soul left alive!”<sup>99</sup>

Films, too, fictionalized poison gas. A reviewer at the *Nottingham Journal* was disturbed at a German film that envisioned a future war with soldiers fighting in gas-proof diver suits and rifles that could fire poison gas.<sup>100</sup> The 1929 picture *The Spy* was an action film about the efforts to upset organized society and included, among other sensations, poison gas.<sup>101</sup> A 1934 film titled *The Right to Live* was advertised with the tagline “War! Poison Gas! Is there an antidote?”<sup>102</sup> In the 1938 film *Flash Gordon’s Trip to Mars*, the hero Gordon and his sidekicks confront the evil Azura who employs poison gas to escape and orders a bombing raid on civilians.<sup>103</sup> The 1939 *Anything to Declare* was touted as an “ARP thriller” that revolved around the invention of an anti-gas formula that made all poison gases harmless.<sup>104</sup> A film made during the war depicted the exploits of a British sabotage expert who goes to Czechoslovakia to blow up a Nazi poison gas factory.<sup>105</sup>

After the end of WWI, fears over a chemical threat to civilians only increased. The speculation regarding future wars fought entirely with chemical weapons, or featuring increasingly sophisticated gas weapons, were extrapolated to impact the civilian populations, as well. Britain determined that 50 tons of the latest arsenical gas, spread by

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<sup>99</sup> *ibid*, 158-9.

<sup>100</sup> “Stage and Screen. Next Week’s Shows,” *Nottingham Journal*, June 15, 1927.

<sup>101</sup> “Next Week’s Pictures,” *Nottingham Evening Post*, May 17, 1929.

<sup>102</sup> “Advertisement. Andrews Pictures,” *Burnley Express*, October 27, 1934.

<sup>103</sup> *Flash Gordon’s Trip to Mars*, directed by Ford Beebee and Robert Hill (1938, Universal Pictures).

<sup>104</sup> “ARP Thriller at the Picturedome,” *Gloucester Citizen*, September 2, 1939.

<sup>105</sup> “Plays and Pictures. Reviews of this Week’s Shows,” *Nottingham Evening Post*, February 8, 1944.

modern, low-flying bombers, would be sufficient to wipe out all of London.<sup>106</sup> British experts assumed future air attacks would occur in three phases, beginning with incendiary bombing to cause congestion through fires, high-explosive bombing, and, lastly, an attack with gas to “stampede the civilian population.”<sup>107</sup> U.S. Congressman Julius Kahn argued that in a future war there would be no non-combatants because bombs dropped from airplanes did not distinguish between soldiers and civilians. The gas fumes, he said, “will strangle the soldier, then search out the innermost crevices of the nursery.”<sup>108</sup> Someone else envisioned a future archaeologist digging up the lost civilization of the British Empire after a machine war that saw the gas menace catch unawares a population that had no protection, was too large to be evacuated, and had not been properly drilled or trained in what to do. The writer continued that people were driven into the streets and even those with masks could not withstand the barrage of deadly gas which “began to spread, rolled down the street canyons and enshrouded the houses, and death came to the citizens, if not that day, then the next, through the simple act of breathing poisoned air.”<sup>109</sup>

There were calls throughout the interwar period to abolish poison gas entirely. In 1925 the League of Nations drafted a charter to ban the use of all chemical weapons in war. Known as the “Geneva Gas Protocol” the charter was signed in 1928 and ratified by most signatories, but concerns over a possible future use of gas persisted.<sup>110</sup> In 1928 these

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<sup>106</sup> “Air Peril,” *Canberra Times*, August 20, 1928.

<sup>107</sup> “Protection Against Air Attack,” *Nottingham Evening Post*, February 18, 1935.

<sup>108</sup> Horace Green, “No Non-combatants Next Time,” *Frank Leslie’s Weekly*, January 28, 1922.

<sup>109</sup> C. Patrick Thompson, “Man’s Fifth Column Weapon Gas!” *Britannia & Eve*, June 1936, 24-25.

<sup>110</sup> Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous, or Other Gases, and Bacteriological Methods of Warfare, June 17, 1925, *LNTS* 94, no. 2138 (1929), 65-74.

concerns were significant enough to be addressed at an international conference in Brussels. Chemical warfare experts from fifteen nationalities met to discuss efforts to protect civilian populations from poison gas.<sup>111</sup> The committee concluded that in a war of the future, no proper protection existed for civilians and that anti-gas measures were a delusion. If a chemical war were to take place, they wrote, it was “likely to produce the most frightful catastrophe among a country’s noncombatants.”<sup>112</sup> Other experts agreed that civilians living in urban centers would likely be the targets of future wars, but that protecting civilian populations through the distribution of gas masks or the building of bomb shelters was financially and physically unfeasible. Only through promoting peace, they concluded, could nations protect their civilians from modern warfare.<sup>113</sup> The Anti-Poison Gas Association was still engaging in propaganda work nearly a decade after the League of Nations charter, seeking to make all people realize the need to abolish poison gas.<sup>114</sup> Others argued politicians were failing to protect populations from gas and scientists would have to do their part to promote abolishing chemical weapons.<sup>115</sup>

Britain also kept a close eye on the chemical warfare preparations of its potential future enemies. Reports that Germany was developing a new and deadly poison gas reached Britain as early as 1924.<sup>116</sup> A German War Academy syllabus that trained its students in the gas protection of civil populations suggested that Germany expected their

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<sup>111</sup> “Move to Protect People Against Chemical Warfare,” *Christian Science Monitor*, January 17, 1928.

<sup>112</sup> “Anti-Gas Plans Declared Vain,” *Christian Science Monitor*, May 25, 1929.

<sup>113</sup> “Lesson is Seen Against War in Air Maneuvers,” *Christian Science Monitor*, May 21, 1931.

<sup>114</sup> “St. Andrews. Propaganda Work,” *St. Andrews Citizen*, October 24, 1936.

<sup>115</sup> “Effect of Poison Gas on Human Beings,” *Nottingham Evening Post*, July 17, 1936.

<sup>116</sup> TNA: WO 188/757, *German Experiments in Poison Gas*, April 22, 1924.



civilians to become gas targets.<sup>117</sup> A source informed British military leaders that German chemical factories had been so organized that they could be converted to manufacturing poison gas within 48 hours.<sup>118</sup> Germany was also reported to have created a material that was proof against mustard gas and were already manufacturing overalls in German field-gray out of it.<sup>119</sup>

In the 1920s the British government began considering how to protect its civil population from gas. The Committee of Imperial Defence (CID) was intended to provide answers on a variety of subjects and its Air Raid Precautions Sub-Committee specifically dealt with protecting the civilian populations from air raids. In 1924 the Sub-Committee first considered how to protect the civil population from a gas attack.<sup>120</sup> In 1931 the CID argued that it was important to continue such preparations even after the 1925 Geneva Gas Protocol because some signatories had added a clause making their assent to the ban dependent on being allowed to retaliate should they suffer a gas attack.<sup>121</sup> The Committee considered that it might be likely that civilians would be subject to future gas attacks, the effects of which on a population ignorant of the dangers and with no scheme of defense, could be disastrous.<sup>122</sup> The Committee saw the preparation of a defense scheme and the education of the public on gas warfare as a vital necessity, arguing that this would largely negate the terror of chemical weapons, which it saw as the worst effects of gas.<sup>123</sup> This

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<sup>117</sup> TNA: WO 188/757, R7/6/48, February 12, 1924.

<sup>118</sup> TNA: WO 188/757, Extract from B.M. M.I. 3/4816, November 8, 1922.

<sup>119</sup> TNA: WO 188/757, *German Gas Protection*, May 2, 1923.

<sup>120</sup> TNA: CAB 3/4, Committee of Imperial Defence, *Protection of the Civil Population Against Gas in Time of War*, July 1924.

<sup>121</sup> TNA: CAB 3/5, Committee of Imperial Defence, *Defence of the Civil Population Against Gas*, "Manual for the Instruction of Police, Decontamination Personnel, &c." December 1931, 2.

<sup>122</sup> *ibid.*

<sup>123</sup> *ibid.*

demonstrates that the Committee understood that the psychological effects of gas on the population would be much greater than those of other types of bombs and that only reliable information released by the government could counter the ignorance and exaggerated notions about poison gas held by the public.<sup>124</sup>

As tensions in Europe rose, so did anxieties over the potential use of poison gas in a future war. The Czech Crisis in 1938 especially hurried preparations for what seemed like an inevitable war. All government departments, including those responsible for protecting British civilians, accelerated their civil defense measures in response. During this period, the Home Office assembled and issued approximately 38 million respirators to civilians that had been previously stored for a future emergency.<sup>125</sup> To those engaged in civil defense services the Home Office issued duty respirators, protective clothing, and bleach powder.<sup>126</sup> The lack of ready protection for small children and babies was particularly worrying during the crisis.<sup>127</sup>

The outbreak of war in 1939 was marked by concerns that gas would be used against civilians. Immediately after the outbreak of war on September 1<sup>st</sup>, newspapers across Britain informed their readers on what to do if the Germans attacked, notifying them that rattles would signal a gas attack and asked that people keep their gas masks

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<sup>124</sup> *ibid.*, 6.

<sup>125</sup> TNA: CAB 16/190, Committee of Imperial Defence, *Report of Conference to Consider Departmental Reviews of Precautionary Measures (Civil Defence) taken during the Czecho-Slovakian Crisis, September 1938*, Part II, Appendices to Report of Conference, Appendix I, "Review by the Home Office, Air Raid Precautions Department," p. 3.

For a detailed look at Britain's gas mask program see Chapter 3.

<sup>126</sup> *ibid.*

<sup>127</sup> *ibid.*, 4.

close by as they might not have much time to prepare.<sup>128</sup> One newspaper reported that Germany intended to break her pledge not to use chemical weapons<sup>129</sup>. The Ministry of Home Security (MHS), its mission the protection of civilians on the homefront, had been preparing for a possible war and within the first few months of the conflict issued pamphlets to citizens that would teach them how to prepare for an attack. Poison gas was an important topic. A few months before war was officially declared, the Home Office printed and distributed through the post office millions of public information leaflets to instruct citizens on air raid precautions in case of war.<sup>130</sup> *Public Information Leaflet No. 2* instructed readers on how their gas masks functioned, how to wear them, and how to properly care for them.<sup>131</sup> The pamphlet *Shelter from Air Attack* included a section titled “Bombs and Gas” that informed its reader on the various bombs that might be used and how they operated.<sup>132</sup>

The Home Office sought to publicize the gas threat throughout the war without causing undue alarm among the population. Gas publicity became a balancing act between engendering enough worry to get people to act, but to also provide enough reassurance to avoid panic and disorder. A pamphlet titled *How to Defend Yourself Against Gas* suggested that gas might be used to terrorize people, but that there was no need to be frightened if one knew how to be prepared.<sup>133</sup> This pamphlet included

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<sup>128</sup> “What to Do,” *Croydon Advertiser and East Surrey Reporter*, September 1, 1939; “What to do Now,” *Leamington Spa Courier*, September 1, 1939; “Raid Signals,” *Grimsby Daily Telegraph*, September 1, 1939; “Air Raid Warnings,” *Bury Free Press*, September 2, 1939.

<sup>129</sup> “Germany to Use Gas?” *Birmingham Daily Gazette*, October 21, 1939.

<sup>130</sup> TNA: MH 79/197, “A.R.P. Department Circular No. 135/1939, Public Information Leaflet 2,” July 7, 1939.

<sup>131</sup> Home Office, *Public Information Leaflet No. 2*, Lord Privy Seal’s Office, July 1939.

<sup>132</sup> Home Office, *Shelter from Air Attack*, (London: HMSO, 1939), 2-4.

<sup>133</sup> TNA: HO 186/2116, *How to Defend Yourself Against Gas*, October 3, 1940, 1.

instructions on how to recognize gas, the types of gases that might be used, how to protect oneself, and how to use the civilian respirator.<sup>134</sup> After the start of the Blitz, Prime Minister Winston Churchill asked the MHS to review anti-gas precautions for the public and the resulting gas publicity campaign began with Home Secretary Sir John Anderson broadcasting a speech to remind civilians of the gas threat.<sup>135</sup> One official suggested that this pamphlet and Anderson's speech needed to be supplemented with a broadcast of reassurance by the Minister, a full press statement of reassurance and instructions, and a poster containing the main points of the leaflet to forestall any panic and stampeding that might be caused if gas were used.<sup>136</sup> After seeing a draft of a poster depicting a drawing of a man and woman donning respirators as a gas attack occurs, an employee of the Public Relations Department wrote to the officer in charge with a suggestion: "could you persuade the artist to take the look of terror out of the lady's eyes? We are anxious to convince the Public that there is no need for apprehension if you have your gas-mask with you [...]."<sup>137</sup> Public Information Leaflet No. 6 instructed readers on how to protect the food in their homes from poison gas, intending to reassure the anxieties of many who worried about losing food in a time when it was already strictly rationed.<sup>138</sup> Another draft pamphlet proclaimed that "Gas will be no more than a nuisance - if we are ready."<sup>139</sup> *Gas—what you should know* was a pamphlet issued by the MHS in 1941 that informed the reader that gas might be used to "upset your daily life," but that this could be avoided

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<sup>134</sup> *ibid.*

<sup>135</sup> TNA: HO 186/2116, B. Barnes to T.L. Rowan, *Defence against gas*, January 13, 1941.

<sup>136</sup> TNA: HO 186/2116, *Publicity about Anti-gas Measures*, January 22, 1941, 1-2.

<sup>137</sup> TNA: HO 186/2247, Mrs. Williams to J.P. McNulty, June 14, 1941.

<sup>138</sup> TNA: HO 186/2116, Ministry of Food, *Poison Gas and Food in your Home, Public Information Leaflet No. 6*, n.d.

<sup>139</sup> TNA: HO 186/2116, *If He Uses Gas*, n.d., 2.

by following the instructions provided, which focused on using the respirator and simple first aid.<sup>140</sup> A film trailer dealing with anti-gas precautions was also prepared, in addition to short BBC broadcast talks on the subject.<sup>141</sup> The MHS and Ministry of Information (MI) also collaborated on an anti-gas exhibition held at the Charing Cross Underground Station and considered locations for further such exhibitions.<sup>142</sup> The MHS also found that it was increasingly difficult to ensure public attention to the topic when no gas attack had transpired several months into the Blitz and suggested that publicity measures should be spaced out carefully to provide a fresh start for the campaign every few weeks.<sup>143</sup>

Government offices responsible for educating the public also employed the press as a tool of gas publicity. This campaign published a series of four anti-gas advertisements in all of the Sunday newspapers, which enjoyed a large readership.<sup>144</sup> While these advertisements were primarily visual and provided only basic instructions, the ministries involved in gas publicity also published “Gas Raid Quizzes” to provide more in-depth information to readers. Over a period of several months, as many as twenty different quizzes were published in British newspapers, each asking several questions about gas precautions and providing a short answer. Questions included what to do with a child unwilling to wear a respirator, whether or not a man should give up his mask for a woman, how to wear spectacles with a respirator, what to do if one is driving while a gas

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<sup>140</sup> TNA: HO 186/2116, Ministry of Home Security, *Gas—what you should know*, February 1941, 1.

<sup>141</sup> TNA: HO 186/2116, J.P. McNulty, *Anti-gas Campaign, Preliminary Memorandum*, April 30, 1941, 2.

<sup>142</sup> TNA: HO 186/2116, *Current Publicity*, n.d.

<sup>143</sup> TNA: HO 186/2116, Ministry of Home Security, *Anti-Gas Publicity*, March 13, 1941.

<sup>144</sup> TNA: HO 186/2116, J.P. McNulty, *Anti-gas Campaign, Preliminary Memorandum*, April 30, 1941, 1.

rattle sounds, and how to deal with mustard gas splashes on the skin.<sup>145</sup> Readers were expected to look at the questions and determine how much they knew themselves about gas precautions. By the end of 1941, the gas raid quizzes, which had initially been entirely textual, were published in the form of advertisements, with a related drawing, large text, and only one or two questions and answers.<sup>146</sup> When the press published reports and images covering a gas exercise in Brighton, however, the MHS and MI were quite upset, arguing that it crossed the boundary of mere press publicity because it did not simply provide instruction or advice.<sup>147</sup> Officials in both ministries quickly sought to shut down any coverage of gas exercises (and pictures thereof especially) to avoid alarming the public.<sup>148</sup> Similarly, it was planned to censor newspaper accounts of actual gas attacks, should they occur, and in particular references to where gas had been dropped, what type of gas was used, the effects of the gas, and the number of casualties.<sup>149</sup>

That the Germans would use gas against the British Isles was a recurring theme during the war. Early in the war, a rumor suggested the Germans were trying to impregnate dust clouds with vesicants which they could release from aircraft or let drift across the Channel.<sup>150</sup> It was also reported that the Germans planned to attached gas-

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<sup>145</sup> TNA: HO 186/2247, Ministry of Home Security, *Gas Raid Quiz No. 1*, June 1941; Ministry of Home Security, *Gas Raid Quiz No. 2*, June 4, 1941; Ministry of Home Security, *Gas Raid Quiz No. 3*, June 4, 1941; *Gas Raid Quiz*, June 16, 1941.

<sup>146</sup> TNA: HO 186/2247, Ministry of Home Security, *Gas Raid Quiz No. 17*, October 27, 1941; Ministry of Home Security, *Gas Raid Quiz No. 18*, November 10, 1941; Ministry of Home Security, *Gas Raid Quiz No. 19*, December 15, 1941; Ministry of Home Security, *Gas Raid Quiz No. 20*, December 15, 1941.

<sup>147</sup> TNA: HO 186/2116, *Publicity for Brighton Gas Test*, n.d.

<sup>148</sup> TNA: HO 186/2116, Letter to J. Radcliffe, February 25, 1941.

<sup>149</sup> TNA: HO 186/2116, Hillier to Mr. Leslie, March 6, 1941.

<sup>150</sup> TNA: WO 188/2053, *Possible German Secret Weapon*, February 2, 1940.

filled tanks to submarines to be towed into British seaports, where their deadly contents would be unleashed on the civilian population.<sup>151</sup>

Until mid-1940, the war had been relatively quiet for British civilians, but emerging rumors about imminent gas attacks caused new anxieties. In July 1940 the MHS was greatly concerned about a gas attack on Britain after reports that gas bombs had been distributed in German aerodromes and that the German ARP department had been instructed to test all civilian respirators.<sup>152</sup> Intelligence also strongly suggested the Germans planned to use gas in preparation for an invasion of the island.<sup>153</sup> By the end of the month an attack with gas on Britain was considered “a definite possibility.”<sup>154</sup> New prime minister Winston Churchill asked that further and repeated warnings be given to the public about gas and that every gas mask ought to be tested and civilians told to carry them everywhere.<sup>155</sup> While the MHS wanted citizens to be prepared for a chemical weapons attack, they worried the public would panic unduly if excessive attention was paid to gas.<sup>156</sup> Subsequently, a July 30<sup>th</sup> broadcast by Home Secretary John Anderson enjoined citizens to prepare for gas in between reminding them of other air raid precautions.<sup>157</sup> A year later, a new report surfaced from Switzerland that Hitler intended to employ a new gas that persisted at ground level for an attack against Russia and an

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<sup>151</sup> TNA: WO 188/2053, Letter to The Chief Superintendent Chemical Defence Research Department, April 9, 1940.

<sup>152</sup> TNA: HO 186/2112, F.L. Fraser, *German Threat of Gas Attack on Great Britain*, July 15, 1940.

<sup>153</sup> TNA: HO 186/2112, *Extract from War Office Intelligence Summary No. 323*, July 22, 1940.

<sup>154</sup> TNA: HO 186/2112, *Gas Attack*.

<sup>155</sup> TNA: HO 186/2112, General Ismay to Sir Thomas Gardiner, July 24, 1940.

<sup>156</sup> TNA: HO 186/2112, General Bartholomew to Regional Commissioners, *Draft Minute to Principal Officers*.

<sup>157</sup> TNA: HO 186/2112, *Broadcast by Sir John Anderson, Minister of Home Security, in the Postscript following the 9PM News on Tuesday, 30th July 1940*.

attempt to invade Britain.<sup>158</sup> Again, in 1943, a source claimed Hitler had told Mussolini he intended to use gas “in the near future” against England.<sup>159</sup> The War Office was also concerned at reports that German troops had been made to carry full anti-gas equipment, had increased anti-gas training, and were practicing in their masks.<sup>160</sup>

Often private citizens wrote to the Ministry of Information about gas rumors they had heard. One man heard a tale while dining that Hitler had developed a very powerful gas that could not be smelled and killed very suddenly about a month after inhalation.<sup>161</sup> Another wrote that a “reliable source” had informed him that a white powder lying in the streets after German raids was a new form of poison gas that was inert in its dry state, but upon a rain shower a “extremely potent poison” would be released.<sup>162</sup> A concerned civilian even wrote in from Australia to inform the Intelligence Department that Hitler’s secret weapon was a new type of gas.<sup>163</sup> An anonymous letter was sent to the British legation in German notifying them that the Germans had been storing enormous amounts of poison gas and were intending to use it in an upcoming offensive.<sup>164</sup>

The worry over a gas attack was often more pronounced in the British colonies. An official 1935 report considered the need for protection in Malta. It argued that the island’s

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<sup>158</sup> TNA: HO 186/2846, *Extract from a Despatch from the Netherlands Minister in Berne dated 29th December last.*

<sup>159</sup> TNA: CAB 121/100, *Telegram from Madrid to Foreign Office, April 16, 1943.*

<sup>160</sup> TNA: CAB 121/100, *Telegram from C-in-C Middle East to War Office, April 20, 1943; Telegram from Thirty Military Mission Moscow to The War Office, 25 February 1943.*

<sup>161</sup> TNA: INF 1/269, Letter to Duff Cooper, July 15, 1940.

<sup>162</sup> TNA: INF 1/269, Mrs. Geoffrey Paul to Ministry of Information, August 10, 1940.

<sup>163</sup> TNA: WO 188/2053, Letter by A.L. James to Officer in Charge Intelligence Dept., March 26, 1940.

<sup>164</sup> TNA: WO 188/2053, Letter to Britische Gesandtschaft, February 16, 1940.



high humidity and porous limestone made it an ideal target for gas warfare.<sup>165</sup> Subsequently, sufficient cheap respirators were made available for the civil population of Malta.<sup>166</sup> At Aden, officials called for supplies of anti-gas equipment for the civil population as early as 1936, as a result of the Italians using gas against the Abyssinians.<sup>167</sup> Over 4,000 respirators were sent for the protection of British civilians in Aden.<sup>168</sup> The Egyptian Consular Office asked for respirators for its British civilian subjects as early as July 1938, although some worried that panic-stricken “natives” might try to take possession of the coveted masks.<sup>169</sup> British subjects in Egypt particularly feared a gas attack if Italy were to enter the war, as the Italians had already employed poison gas against Abyssinia and the Egyptians offered a similarly unprotected target.<sup>170</sup> The British civilians in Egypt were getting “very anxious” when by 1941 the full allotment of babies’ and children’s gas masks had still not been received.<sup>171</sup> By 1942, Singapore, Burma, the Dutch East Indies, Australia, and Canada had requested civilian respirators from Britain, but rubber shortages meant these requests could not be met.<sup>172</sup>

Fear of chemical warfare was also evident in rumors of Germans poisoning civilians through everyday objects. Just after the start of the London Blitz, the police received reports in several regions about cobwebs, a white “gossamer like” substance,

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<sup>165</sup> TNA: WO 188/440, G.D. Kirwan and A.T. Sumner, *Malta. Civil Air Raid Precautions*, (Government of Malta, October 1935), 7-8.

<sup>166</sup> *ibid*, 15.

<sup>167</sup> TNA: CO 323/1395/19, Letter to W.F. Connolly, October 1, 1936.

<sup>168</sup> TNA: CO 323/1395/19, Letter by W.F. Connolly to D.J. Wardley, June 30, 1936.

<sup>169</sup> TNA: HO 186/420, Letter from C.E. Heathcote-Smith to British Embassy at Cairo, May 26, 1939; Letter to Lord Halifax, December 22, 1938, 6.

<sup>170</sup> TNA: HO 186/420, Letter by Michael R to T.B. Williams, September 29, 1939.

<sup>171</sup> TNA: HO 186/420, Letter to J.W. Normal from Foreign Office, March 5, 1941.

<sup>172</sup> TNA: HO 186/2098, *Copy of Draft Paper Prepared by GHQ Home Forces*, January 15, 1942, 2.

that had supposedly been dropped from German planes during a raid and that caused blistering of the skin when touched.<sup>173</sup> The material was said to have floated from the sky and, in one area, covered as much as five square miles in fine white streamers that hung from hedges and poles.<sup>174</sup> After testing it was determined that the purported enemy weapon in fact comprised spiderwebs spun by a special type of spider that created its web on the ground surface.<sup>175</sup> This incident mimicked WWI fears of German poison dropped from planes. Sweets found on the ground by civilians after an air raid were suspected of being poisoned, but upon laboratory testing no traces of poison or biological agents were found.<sup>176</sup> Some chocolates received similar attention, although the local police did not bother with lab tests, instead throwing the chocolates down the stairs to prove they could not have been dropped by a plane.<sup>177</sup> Another rumor claimed that German planes had dropped poisoned soup packets on Calais, killing a French family. This was shocking enough to receive attention in British newspapers, but testing again revealed no known poisons.<sup>178</sup> Poisoned cakes were also said to have been dropped.<sup>179</sup> Such reports of poisoned items dropped from planes caused enough public anxiety that one news agency was reprimanded for its exaggerated and falsified reports.<sup>180</sup>

During the war the news media continued to ensure civilians did not forget about the gas threat. In August 1940, one paper urged its readers to carry their gas masks as

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<sup>173</sup> TNA: HO 199/293, *Memo to all Regions from Home Security*, September 22, 1940.

<sup>174</sup> TNA: HO 199/293, *'Gossamer' Dropped from Enemy Aircraft*.

<sup>175</sup> TNA: HO 199/293, *Explanation of a Cobweb Shower*, October 30, 1940.

<sup>176</sup> TNA: HO 45/10883/344919, Letter to Ashmead Bartlett, January 31, 1918.

<sup>177</sup> TNA: HO 45/10883/344919, Letter to G.H. Edwards, February 5, 1918.

<sup>178</sup> TNA: HO 45/10883/344919, *Poisoned Food Dropped by Enemy Aircraft*, January 8, 1918.

<sup>179</sup> TNA: HO 45/10883/344919, *Report on the Calais Cake received through Home Office*, October 16, 1917.

“the use of poison gas by the enemy is now a possibility not to be discounted.”<sup>181</sup>

Reminding British civilians of their own duties in the case of a gas attack was a common theme in newspaper articles during the war. A member of the MHS suggested most civilians were ill-prepared for a gas attack.<sup>182</sup> The *Coventry Evening Telegraph* asked its readers “Is Coventry Prepared Against Gas?” and suggested each citizen was responsible for his or her own preparedness.<sup>183</sup> By 1942, newspapers were suggesting that the more desperate the Nazis became, the more likely they were to use poison gas.<sup>184</sup> The *Lancashire Evening Post* juxtaposed a similar article on Nazi gas plans for Britain with a large-print call for readers to carry their gas masks, although underneath in smaller print this was explained to be for a gas exercise to take place later.<sup>185</sup> Reports of a new type of German gas were repeated throughout the war. In 1942 newspapers reported the Germans were going to use a new gas in their offensive against Russia.<sup>186</sup> This new gas was said to attack the nervous system.<sup>187</sup> A few years later the Germans were said to have a gas held in glass phials that soldiers would smash against enemy tanks to blind their crews.<sup>188</sup>

Poison gas loomed large in the British public consciousness by the end of WWI and, with the very real threat of civilian targeting in WWII, solidified its standing as a significant factor in public anxiety. The basic concept of poison gas as a killer and

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<sup>180</sup> TNA: HO 45/10883/344919, Letter to Dixon, March 1, 1918; *Minutes*, Sir Edward Troup, April 1, 1918.

<sup>181</sup> “Poison Gas Possibility,” *Bedfordshire Times and Independent*, August 2, 1940.

<sup>182</sup> “How to Meet Gas Attacks,” *Yorkshire Post and Leeds Mercury*, August 15, 1941.

<sup>183</sup> “Is Coventry Prepared Against Gas?” *Coventry Evening Telegraph*, June 6, 1942.

<sup>184</sup> Augur, “Nazis’ Gas Plans,” *Edinburgh Evening News*, May 11, 1942.

<sup>185</sup> “German Plans for Using Poison Gas,” *Lancashire Evening Post*, May 11, 1942.

<sup>186</sup> “Nazis’ Push Timed For April with a New Gas,” *Daily Mirror*, March 18, 1942.

<sup>187</sup> Augur, “Nazis’ Gas Plans,” *Edinburgh Evening News*, May 11, 1942.

<sup>188</sup> “Montgomery with the Eighth Army: Scenes from the Italian Front,” *Illustrated London News*, January 8, 1944, 12.

something to be despised was well-understood by all members of society. Poison gas was such a readily understood concept that it could be used in analogous reasoning to non-related things, such as gossip, which also had many types and could be spread unseen.<sup>189</sup> The public had a deep enough understanding of gas warfare and its accouterments to give meaning to images such as one printed in *Britannia & Eve* that showed two uniformed members of the Legion of Frontiersmen in gas masks, one holding an unconscious woman, while the other crouches in front of her with his hands in a bag on her chest. Only readers familiar with gas masks and gas warfare would understand that the Frontiersman is attempting to pull out the woman's mask to put it on her, instead of robbing her of her belongings.<sup>190</sup> The actual use of chemical weapons in WWI taught civilians and government decision-makers the very real effects such weapons had on the human body and its condemnation as barbaric ensured that people feared poison gas immediately. The interwar period only reinforced notions about poison gas as a weapon to be dreaded. Contact with WWI veterans provided civilians with first-hand experiences of what it meant to be gassed and popular media often made poison gas a tool used by villains. Continued tensions in Europe ensured that future conflict was often on the minds of civilians and government leaders alike and speculations concerning such a war often included the use of poison gas. When war did break out again, Great Britain had expended a massive effort of money, materials, and man-hours to ensure its population was not just protected from air raids, but that it was well-protected from a possible use of poison gas. While chemical weapons were not actually used in WWII, both government and civilians worried throughout the war that a gas attack could happen in Britain.

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<sup>189</sup> "Thoughts for the Week. Poison Gas," *The Wiltshire Times*, July 29, 1944.

<sup>190</sup> C. Patrick Thompson, "Man's Fifth Column Weapon Gas!" *Britannia & Eve*, June 1936, 25.

### **Chapter 3 - “An Unconquerable People:” Air Raid Precautions for the British Civil Population, 1914-1945**

The advent of aerial warfare and the start of German raids on Britain in WWI made it clear to government and citizens alike that civil populations had become targets. While WWI raids on the British population were limited in scope and the destruction these caused, they nevertheless presented enough of a threat to worry a large part of the citizenry. Almost immediately the government had to create some means of warning and education for the public, a scheme that proved relatively successful in light of the restrictive nature of WWI raids. These early raids, and the damage they wrought, did, however, allow the government and civilians to extrapolate this threat to a possible future war, where technological improvements in aircraft and bombs could potentially wreak havoc on an unprotected population. In the years following WWI government decision-makers discussed the need for a system that provided uniform education, training, and equipment to civilians to deal with air raids and that could channel possible negative energies into useful, or at least purposeful, actions. The idea behind civil defense was that it would allow all civilians to protect themselves and their families from harm during raids and to remain calm and ordered during such times to forestall morale-sapping panic.

During WWI, Britain saw several dozen attacks by German planes and airships, primarily in coastal areas. The first raid occurred in December 1914 and was carried out by an airplane that targeted Dover.<sup>1</sup> By the end of 1916 thirty air or seaplane raids had targeted Britain, usually via a single raider that never penetrated very far past the

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<sup>1</sup> TNA: AIR/1/2123//207/73/1, Intelligence Section General Headquarters, Home Forces, *Aeroplane and Seaplane Raids 1914-1916*, June 1917, 3.

coastline and did little damage.<sup>2</sup> The first zeppelin raid occurred in January 1915, when two German airships crossed the coastline to drop bombs on prominent buildings, such as a church and a racecourse.<sup>3</sup> While soldiers manning anti-aircraft guns and pilots attempting to shoot down zeppelins enjoyed some success, German air raids did enough damage during the war to make British civilians conscious of their sudden vulnerability. One man who lived through both world wars remembered the WWI raids as just as frightening as those of WWII.<sup>4</sup> From the start of raiding in Britain to the end of the war German air raids caused over 2,000 casualties, most of whom were in London.<sup>5</sup> The zeppelins were seen as especially menacing, both for their unique size and shape and their silent flight when the engines were turned off which would suddenly see an airship emerge from behind cloud cover to drop bombs. One civilian who remembered the zeppelin raids equated the terror that zeppelins spread as similar to that of the V-2 rockets of WWII.<sup>6</sup>

Despite the dangers, many watched the airships as they hung in the sky. Air raids were still a novelty and people could only guess at the actual danger they might be in from a raiding zeppelin or plane. One child remembered that many people were more curious of the zeppelins than afraid enough to take shelter. The child and his friends were

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<sup>2</sup> *ibid*, 22-23.

<sup>3</sup> TNA: AIR/1/2123/207/73/2, Intelligence Section General Headquarters, Great Britain, *Air Raids 1915, Airship Raids January - June 1915*, June 1918, 4.

<sup>4</sup> IMW: Documents.15933, Letter by Bertram Gilbert, Feb. 28, 1973, 1-2.

<sup>5</sup> TNA: HO 45/14650B, Committee of Imperial Defence, "Extract of Minutes of the 204th Meeting, held on October 29, 1925," November 1925, 30.

<sup>6</sup> IMW: Documents.15933, G. Davies, *Notes on Bombing of London During the first World War*, n.d., 1.

The writer adds that the zeppelin was so firmly entrenched in the public consciousness that if one ordered "Zepp and a portion of clouds" at any restaurant in London one would be served sausages and mashed potatoes without question.

sent home from school as a raid was coming, but instead went to a high bridge to watch the zeppelin.<sup>7</sup> One woman remembered the first zeppelin that appeared over West-Ham Park and watched as it was shot down on “a lovely afternoon.”<sup>8</sup> A girl who sheltered in the basement with her family was lifted up to spot the zeppelin through the window as it flew over London.<sup>9</sup> A young boy remembered being allowed to watch from the basement window if anything spectacular occurred during a raid.<sup>10</sup> Another family went to the front door when the anti-aircraft guns sounded to watch the zeppelin from the porch, not too close, but quite “near enough to be unpleasant.”<sup>11</sup> A young woman described seeing the zeppelin as “a wonderful sight. It looked like a silver cigar [...]” and when searchlights and guns had the airship in their sights “it was something like looking at a magic lantern.”<sup>12</sup> Someone else remembered the zeppelin looking like a “silver fish” highlighted in the searchlights.<sup>13</sup> Others watched from their roof garden as a zeppelin caught in the searchlights suddenly caught flame and came down from the sky, bending in the middle.<sup>14</sup> Millions of Londoners cheered when a zeppelin was brought down in September 1916.<sup>15</sup> Young boys often spent hours looking for shrapnel or pieces of zeppelins to collect and trade.<sup>16</sup> When a zeppelin was brought down at Potters Bar

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<sup>7</sup> IMW: Documents.15933, Letter by R. Dance, March 27, 1973, 2.

<sup>8</sup> IMW: Documents.15933, Letter from 9 Wolseley Road, March 6, 1973, 6.

<sup>9</sup> IMW: Documents.15933, Letter by Leila S. MacKinlay, February 28, 1.

<sup>10</sup> IMW: Documents.15933, Letter by Wihdman, March 21, 1973.

<sup>11</sup> IMW: Documents.15933, Letter by Kathleen, September 9, 1915, 1.

<sup>12</sup> *ibid.*

<sup>13</sup> IMW: Documents.15933, Letter from 44 Sealand Avenue, March 20, 1973, 1.

<sup>14</sup> IMW: Documents.15933, Letter by Kenneth Jones, March 19, 1973.

<sup>15</sup> IMW: Documents.15933, Letter by Victor McArdell, April 2, 1973, 3.

<sup>16</sup> IMW: Documents.15933, Letter by J.E.T. Willis, March 22, 1973, 3.

hundreds of people set out the next day to go see the wreckage and were sold souvenir pieces of the airship, although these were swiftly confiscated by police.<sup>17</sup>

Some passive means of defense, such as lighting restrictions, existed even before the first raids on Britain. Lighting restrictions were initially applied only to London and Eastern and Southeastern counties, but after the penetration of zeppelins farther inland these restrictions were extended and ultimately covered the whole of England and Wales and a part of Scotland.<sup>18</sup> This restriction ordered that all lights, other than those not visible from outside of a house, must be extinguished between specified hours.<sup>19</sup> This included lit advertisements and shop windows, as well as street lamps, while lights inside shops, buses, and tram cars had to be shaded.<sup>20</sup> In 1915 the Admiralty (which was responsible for home defense) added a requirement that the headlamps of cars be extinguished or shaded.<sup>21</sup> There was no legal compulsion for civilians to comply with lighting orders, however, and after the first zeppelin raid several local authorities asked the Home Office for compulsory powers.<sup>22</sup> London, with its multitude of motor cars and variety of streetlights, presented a significant light problem and required special orders and extended police powers.<sup>23</sup> The concern over visible lights leading the enemy to his target was so serious that authorities questioned the use of flashlights by pedestrians, who

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<sup>17</sup> IMW: Documents.15933, G. Davies, *Notes on Bombing of London During the first World War*, n.d., 2.

<sup>18</sup> TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918*, April 29, 1924, 2-3.

<sup>19</sup> TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918, Part I*, 1.

<sup>20</sup> *ibid*, 2.

<sup>21</sup> *ibid*, 7.

<sup>22</sup> *ibid*.

<sup>23</sup> *ibid*, 24-25.



needed them to walk after dark since streetlights had been extinguished, and in some cases people were even prosecuted for striking a match in the open after dark.<sup>24</sup>

The government eventually instituted a crude warning system to allow people to prepare for an attack. Initially reluctant to give warnings over concerns that it would cause too much work stoppage in factories, the government eventually relented, in part because many munition workers, female especially, refused to work at night unless they would be warned in time of an air raid.<sup>25</sup> Because it was impossible, especially in the first two years of the war, to give prompt and reliable warning, there was a good chance that a hostile raider or airship might appear unannounced, undermining the sense of security a public warning was intended to convey.<sup>26</sup> For the purposes of issuing a warning the whole of England and Wales and parts of Scotland were divided into seven “Warning Controls,” each under the leadership of a “Warning Controller.”<sup>27</sup> The Controller received information on the movement of hostile aircraft and, if it appeared that the aircraft were heading towards his Control he would inform the telephone exchange manager, who would then send on the warning to the various telephone exchanges.<sup>28</sup> Only those who had subscribed to the warning lists would receive the telephone warning and this included those who needed to make preparatory arrangements, such as factories, businesses, and government offices.<sup>29</sup> This WWI warning system suffered seriously from the limitations of communication. In February 1916 nine German airships penetrated British defenses in

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<sup>24</sup> *ibid*, 80.

<sup>25</sup> *ibid*, 37.

<sup>26</sup> TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918, Part IV*, 7.

<sup>27</sup> *ibid*, 39.

<sup>28</sup> *ibid*, 41.

<sup>29</sup> *ibid*.

what is often known as ‘The Silent Raid’ because no air raid warnings were given in most of the locales bombed. The zeppelins penetrated as far inland as Derbyshire and many towns that were attacked did not fall under the lighting order. Clogged telephone lines and inadequate arrangements to transmit warnings from region to region led to the lack of a public warning.<sup>30</sup> Confusion also arose over the type of warning sound various localities employed. Birmingham, for instance, discontinued the use of warning sirens in the city, but the adjoining borough of Smethwick continued to use theirs, which were easily audible in Birmingham, leading to significant confusion in the case of a raid.<sup>31</sup>

Civilians were also warned before an attack. Such warnings in WWI served primarily to allow people to extinguish any visible light and urge those outdoors to find cover.<sup>32</sup> Initially, a number of means of warning the public were considered, including the ringing of telephone bells, the turning on of street lamps, the ringing of tramcar bells, and the firing of blank charges by the anti-aircraft guns, but all these were considered to take too long or be ineffective.<sup>33</sup> By the middle of 1916 over 500 places of public entertainment in London, such as cinemas, theaters, and music halls, were included on the official warning list.<sup>34</sup> When there was an imminent threat policemen were sent out on bicycles or foot carrying placards that read “Air Raid Take Shelter.”<sup>35</sup> Sometimes these signs were printed front and back marked ‘Take Cover’ and then “All Clear’ for after the

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<sup>30</sup> TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918, Part I*, 31.

<sup>31</sup> *ibid*, 12.

<sup>32</sup> *ibid*, 4.

<sup>33</sup> *ibid*, 29.

<sup>34</sup> *ibid*, 24.

<sup>35</sup> IMW: Documents.15933, Letter by E.B. Cox, March 27, 1973, 1; TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918, Part IV*, 33.

raid.<sup>36</sup> The policemen would blow whistles or a bugle would sound for the “all clear.”<sup>37</sup> In other areas Boy Scouts blew whistles to indicate the “all clear.”<sup>38</sup> There was no consistency between regions, however, and in some locales constables and the fire brigade would call out a warning when an attack was possible, but there was no specific warning when an attack was imminent.<sup>39</sup> Eventually maroons were used to warn the population before a raid, but these exploded with “a shattering bang and scarlet flare” loud enough to be mistaken by many for the raid itself and thus may often have caused more panic than they prevented.<sup>40</sup> These maroons, sound bombs usually used as a distress signal at sea, rose to a height of 1000 feet before exploding and could be effectively heard over an area of a square mile.<sup>41</sup> Because of the slow speeds of planes and airships at the time, warnings were given as much as twenty minutes in advance of a raid, a stark contrast from WWII.<sup>42</sup> For many civilians the air raid warnings caused indignation and often aroused curiosity rather than impelling people to seek shelter.<sup>43</sup> At night, most local authorities were reluctant to employ sound warnings and only policemen with placards and whistles or bells were used to clear the streets, although some members of the public complained that such warnings did not reach those indoors who wanted to seek shelter.<sup>44</sup> By 1917, the public were increasingly demanding something more emphatic than

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<sup>36</sup> IMW: Documents.15933, Letter by R. Dance, March 27, 1973, 3.

<sup>37</sup> TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918, Part IV*, 33; IMW: Documents.15933, Letter by John F. Milsom, May 30, 1973.

<sup>38</sup> IMW: Documents.15933, Letter by Wihdman, March 21, 1973.

<sup>39</sup> TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918, Part IV*, 5.

<sup>40</sup> IMW: Documents.15933, G. Davies, *Notes on Bombing of London During the first World War*, n.d., 1; TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918, Part IV*, 30.

<sup>41</sup> TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918, Part IV*, 30.

<sup>42</sup> IMW: Documents.15933, G. Davies, *Notes on Bombing of London During the first World War*, n.d., 3.

<sup>43</sup> TNA: HO 45/14650B, Home Office, *Anti Aircraft Precautions (Civilian) 1914-1918, Part IV*, 6.

placards at night and in February 1918 the decision was made to fire maroons at any time during the day.<sup>45</sup> Hull's Chief Constable admitted he would not have used sound signals had he known what the effect would be, especially in light of the complaints of the upper classes, who preferred to stay at home during a raid, and opposed the noisy warnings.<sup>46</sup>

Civilians were quickly instructed on ways to protect themselves from air raids. It was important that civilians came to appreciate the risks to which they might be exposed during an attack and how to take steps to protect themselves.<sup>47</sup> There was, however, no definite or prescribed course of action the government or local authorities could point to, and thus only general principles of protection were issued to the public. Early in 1915, a poster illustrating the shapes and types of German and British aircraft was widely distributed and achieved significant popularity.<sup>48</sup> The British Fire Prevention Committee, consulting with the Home Office, issued a series of leaflets on fire prevention.<sup>49</sup> Instructions were issued to towns in the East in 1915 and printed in local newspapers. These instructions were minimal, telling people to disperse, seek shelter, go into cellars or lower rooms if possible, and not to touch unexploded ordinance.<sup>50</sup> In Hull, middle and lower class people would trek into the countryside with their families upon the sounding of the public warning, which on some nights may have affected up to

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<sup>44</sup> *ibid*, 38.

<sup>45</sup> *ibid*, 43.

<sup>46</sup> *ibid*, 9-10.

<sup>47</sup> *ibid*, 21.

<sup>48</sup> *ibid*.

<sup>49</sup> *ibid*, 22.

<sup>50</sup> "In Case of Air Raids," *Cambridge Independent Press*, January 8, 1915; "Coventry & The War. Air Raid Precautions," *Coventry Evening Telegraph*, January 22, 1915.

as many as 40,000 people.<sup>51</sup> Civilians were generally instructed to remain indoors upon a warning, but experience showed only the “educated and responsible” section of society complied, while the “masses” living in the East End were quick to leave their homes for what they saw as better shelter at the slightest sign of a raid.<sup>52</sup>

Civil defense services, however, were generally unsophisticated, disorganized, and often unofficial. In some areas there was a voluntary night patrol, a precursor to the Wardens' Service in the next war. At the Holy Trinity Church in Islington, London, civilian volunteers patrolled the church grounds every night during the war in teams of two men for two-hour shifts that began at 10PM and ended at 4AM.<sup>53</sup> If an air raid warning sounded the patrolmen would turn off all the lights, open all doors, set out guide lamps, and control the crowds who sought shelter in the church.<sup>54</sup> Without a comprehensive medical system to deal with air raid casualties, treatment for victims was sometimes delayed. One doctor suggested that Special Constables should receive a short first-aid course to treat serious casualties on the spot and potentially save lives.<sup>55</sup> In London, by 1917, there existed about sixty air raid depots with fleets of ambulances operated by voluntary organizations and coordinated by the police to ensure air raid victims could be dispatched to hospitals more quickly.<sup>56</sup> Local groups and charities often held first-aid courses for civilians to allow them to render assistance during a raid, but there was no official system of training or training requirements for those engaged in air

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<sup>51</sup> *ibid*, 9.

<sup>52</sup> *ibid*, 47.

<sup>53</sup> P83/TRI/156.

<sup>54</sup> P83/TRI/156.

<sup>55</sup> Novocastrian, “First Aid in Air Raids,” *Newcastle Journal*, September 29, 1916.

<sup>56</sup> “Air Attacks and First Aid,” *Daily Record*, September 5, 1917.

raid precautions.<sup>57</sup> A national relief fund and charities, such as the Mansion House Fund, offered financial assistance to the victims of air raids.<sup>58</sup>

After the raids of WWI, it was clear that a better system of air raid precautions was needed in case of a future war. In 1924 the Sub-Committee on Air Raid Precautions was added to the CID with Sir John Anderson, future Home Secretary, as its chairman. The sub-committee was established to consider the question of air raid precautions in light of “the exposed situation of the Capital and seat of Government and other parts of southern England to air raid attack.”<sup>59</sup> The members of the Sub-Committee were alarmed by an Air Staff report of the danger to which Britain was exposed, which estimated that the nearest enemy could drop a higher tonnage of bombs on Britain in the first 48 hours of a future war than had been dropped in all of WWI.<sup>60</sup> The Committee also suggested that for precautionary measures to be taken seriously the public had to be receptive and understand the danger of air attack. They did not, however, wish to institute the immediate and wide distribution of information on the topic, instead arguing that education on air raids should be “slow and gradual” to avoid creating “undue alarm” in the population.<sup>61</sup> A 1925 report by the CID considered necessary aspects of an air raid precautions system, such as a warning system, damage prevention, vital services after a

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<sup>57</sup> “Air Attacks and First Aid,” *Daily Record*, September 5, 1917; “Air Raids & First Aid to the Injured,” *Dover Express*, March 31, 1916.

<sup>58</sup> “Aid for Air Raid Sufferers,” *Newcastle Journal*, June 29, 1917.

<sup>59</sup> TNA: HO 45/14650B, Committee of Imperial Defence, *Extract from the Minutes of the 179th Meeting, held on January 14, 1928*, January 1924, 1-2.

<sup>60</sup> TNA: HO 45/14650B, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Report*, July 8, 1925, 4.

<sup>61</sup> TNA: HO 45/14650B, Committee of Imperial Defence, *Extract from the Minutes of the 204th Meeting, held on October 29, 1925*, November 1925, 1.

raid, and anti-gas measures.<sup>62</sup> The Sub-Committee saw the education and morale of the public as cornerstone of national defense, assuming that in a future war “that nation, whose people can endure aerial bombardment the longer and with greater stoicism, will ultimately prove victorious.”<sup>63</sup>

The Committee drew conclusions based on air raid experiences in WWI. They thought an ad hoc warning system would only aid the enemy in disrupting normal life, but considered a fully worked out warning system to be necessary, partially in light of the refusal by munition workers to continue their work during a raid.<sup>64</sup> Additionally, they recommended the use of the wireless broadcasting service as an important alternative or supplement to the warning system, especially if telephone lines became congested or interrupted.<sup>65</sup> The Committee recommended that, in the future, lighting restrictions be vested entirely in the Home Office, to avoid the confusion and conflicting guidelines from WWI.<sup>66</sup> They realized the necessity for a well-staffed and organized medical system and ambulance service to care for the many casualties to be expected in massive air raids.<sup>67</sup> While British civilians did not suffer from a gas attack in WWI, a future attack with chemical weapons seemed likely. To combat the gas menace the Committee suggested the creation of a decontamination service, the gas-proofing of buildings,

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<sup>62</sup> TNA: HO 45/14650B, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Report*, July 8, 1925.

<sup>63</sup> *ibid*, 6.

<sup>64</sup> *ibid*, 7.

<sup>65</sup> TNA: HO 45/14650B, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Extract from Minutes of the Meeting of the Sub-Committee held in Conference Room ‘A’, No. 2 Whitehall Gardens*, November 1926, 9.

<sup>66</sup> TNA: HO 45/14650B, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Report*, July 8, 1925, 11.

<sup>67</sup> *ibid*, 17.

training the police in anti-gas measures, and educating the public on how to protect themselves.<sup>68</sup>

Even prior to the outbreak of WWII, the Home Office put into force many of the recommendations of the CID. The Home Office implemented a whole system of civil defense to educate, protect, and organize the civilian population of Britain in case of another war. Unlike WWI, the government departments responsible for air raid precautions and the various local authorities had had time to make detailed plans and had the benefit of prior experiences on which to improve upon. The 1937 Air Raid Precautions Act was based on Home Office instructions to local authorities on the provision of civil defense measures and services, such as warning systems, lighting restrictions, and rescue services, and detailed who should bear the financial burden of civil defense preparations.<sup>69</sup> While the 1937 act made provision for basic air raid precautions, the international crisis in 1938 showed that it needed strengthening. The Civil Defence Act of 1939 was drafted to further enable the protection of life and property through such services as evacuation, civil defense training for staffs, the treatment of casualties, and the provision of improved shelters.<sup>70</sup> These two acts combined allowed local authorities to take civil defense measures in their regions and receive financial aid from the government, such as building or designating air raid shelters, which ranked for grant-aid up to 70% of expenditure.<sup>71</sup> The acts ensured not only financial support, but also uniformity in civil defense across Britain. The Home

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<sup>68</sup> *ibid*, 21-22.

<sup>69</sup> Air Raid Precautions Department, *Air Raid Precautions Act, 1937* (London: HMSO, 1938).

<sup>70</sup> *Civil Defence Act, 1939* (London: HMSO, 1939).

<sup>71</sup> T.S. Simey and Mary Williams, *The Civil Defence Acts of 1937 and 1939* (London: Charles Knight & Co, 1939), xxviii.



Office now could set standards and requirements for local authorities to implement, avoiding the often disorganized and sometimes contradictory nature of WWI air raid precautions in the event of a future war.

Unlike the case of WWI, in the 1930s anticipation was high that civilians would become deliberate targets of enemy air attack. While there had been some means of protection for civilians during the previous war, and the state had provided some information on ARP, future attacks were expected to occur on a much wider scale, necessitating a much more comprehensive system of civil defense. Civilian response to enemy air raids in WWI had often been lackluster and evidenced more curiosity than fear and government officials knew they needed a well-educated and well-prepared public to withstand a future attack when faced with ever-improving technology. As a result, prior to the outbreak of war, the state engaged in ARP publicity and education campaigns to ensure every civilian would know what to do if war came again. Civil Defense was the term preferred by London County Council (LCC) Leader Herbert Morrison to describe air raid precautions, as it “imply[ed] a co-operation of citizens in the defence of their homes and their very existence which [was] in harmony with democratic traditions.<sup>72</sup>”

An effective ARP measure adopted from the experience of WWI was the restriction of lighting. The purpose of this was to prevent hostile aircraft being guided to their target on the ground by visible lights.<sup>73</sup> In WWI the warning time had been sufficient to allow localities to station men in sectors ready to extinguish street lamps when necessary, but the shorter warning time resulting from increased air speed meant that lights could not be put out in time. Some advocated for a system to allow a central controller to immediately

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<sup>72</sup> LMA: CL/CD/1/275, *London's War Effort*, March 27, 1940, 2.

<sup>73</sup> TNA: HO 45/17583, *Draft Memorandum on Lighting Restrictions in Time of War*, n.d., 1.

extinguish all street lights in an emergency.<sup>74</sup> Some officials worried that the sudden darkness, should all lights be extinguished simultaneously, was apt to cause panic.<sup>75</sup> Lighting exercises suggested that the speed with which visible lights were extinguished upon the receipt of a warning was too slow and the Home Office reached the conclusion that a general condition of darkening for the entire period of the war would be the best solution.<sup>76</sup> In areas of the country where the warning period would be very short, permanent darkness was necessary, while in other areas some screened streetlights were permitted.<sup>77</sup> All householders were required to mask their windows, skylights, and doors to allow no inside light to be visible.<sup>78</sup> This could be accomplished with dark curtains, blinds, stout cardboard, screens of wood, or black paint.<sup>79</sup> Illuminated advertising signs were prohibited and factories had to mask their windows through dark blinds or black paint.<sup>80</sup> Theaters, cinemas, and other places of entertainment were prohibited from using illuminated displays or advertisements throughout the war, day or night.<sup>81</sup> Local newspapers published the blackout start and end times.<sup>82</sup>

Noncompliance with lighting restrictions could lead to a heavy fine or even imprisonment. Police had the legal power to enter civilian premises and order lights be

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<sup>74</sup> TNA: HO 45/17583, Manchester Chief Constable to Mr. Johnston, January 24, 1938, 1-2.

<sup>75</sup> TNA: HO 45/17583, Exeter Chief Constable to Mr. Johnston, January 22, 1938.

<sup>76</sup> TNA: HO 45/17583, A. Johnston to M.J. Egan, January 19, 1938.

<sup>77</sup> TNA: HO 45/17583, *Report of Lighting Experiments Committee. Scheme of War-Time Lighting Restrictions*, December 21, 1937, 1.

<sup>78</sup> TNA: HO 45/17583, *Draft Memorandum on Lighting Restrictions in Time of War*, n.d., 1.

<sup>79</sup> Ministry of Home Security, *Air Raids What You Must Know What You Must Do* (London: HMSO, 1941), 57.

<sup>80</sup> TNA: HO 45/17583, *Draft Memorandum on Lighting Restrictions in Time of War*, n.d., 1.

<sup>81</sup> TNA: HO 45/18530, *Air Raid Precautions in Places of Public Entertainment*, February 13, 1939, 6.

<sup>82</sup> Ministry of Home Security, *Air Raids What You Must Know What You Must Do* (London: HMSO, 1941), 57.

extinguished.<sup>83</sup> Without proper street lighting, pedestrians resorted to using flashlights to guide their way, but these also had to be screened to no more than an inch diameter, or dimmed by inserting a newspaper, and were required to be pointed down at all times.<sup>84</sup> The Ministry of Transport also installed aids to movement on roads, including white paint to mark the middle of roads, curbs, junctions, and pedestrian crossings, and illuminating street signs, route numbers, street names, and obstructions.<sup>85</sup> Motorists were asked to screen the headlamps of their cars with a special ARP-approved mask if driving at night and to proceed with great care and at low speed.<sup>86</sup>

The lighting restrictions often made being out after dark both dangerous and unappealing to most citizens. Just two months into the war, the rate of road accidents had risen to an alarming degree and when reported to the House they were received with a “gasp of dismay.”<sup>87</sup> In the first month of the war, and the first month of the implementation of lighting restrictions, road deaths had doubled in comparison to the same period in the previous year.<sup>88</sup> By October 1939, however, vehicular accident numbers had actually dropped below average, because of petrol restrictions and a reduction in the number of vehicles on the road, but pedestrian road casualty figures remained unchanged.<sup>89</sup> Pedestrians were encouraged to carry a white object with them or wear a white piece of clothing if out at night to make them more visible to drivers.<sup>90</sup> The

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<sup>83</sup> *ibid.*

<sup>84</sup> *ibid.*, 58.

<sup>85</sup> TNA: HO 186/200, *Note for a Conference on Road Safety*, n.d., 2.

<sup>86</sup> TNA: HO 186/200, *Notice Issued by Ministry of Home Security*, n.d., 1.

<sup>87</sup> TNA: HO 186/200, The Minister, the Secretary, October 19, 1939, 1.

<sup>88</sup> TNA: HO 186/200, *Note for a Conference on Road Safety*, n.d., 1.

<sup>89</sup> *ibid.*

<sup>90</sup> TNA: HO 186/200, *Notice Issued by Ministry of Home Security*, n.d., 2.

Pedestrians' Association was especially incensed at road accident numbers, reporting that, in three months of war, more people had died on British roads than soldiers and sailors on active war service.<sup>91</sup> They emphasized this point with a cartoon of British soldiers huddled together in a trench over a newspaper article on blackout road deaths, with the caption "It must be dangerous over there."<sup>92</sup> One Chief Constable blamed poor attendance at ARP lectures on the blackout.<sup>93</sup> Some believed lack of lighting had a negative effect on the mental state of citizens.<sup>94</sup> While some argued that darkened streets lowered morale, others countered that lighting restrictions actually increased morale because it made civilians feel that the government cared about their security and was doing something to protect them.<sup>95</sup>

Entertainment opportunities were either curtailed during the war or restricted entirely to prevent the massing of people. While such measures directly aimed to limit the loss of life in case of air raids, the reasoning behind this was to avoid mass casualty events that would negatively affect morale.<sup>96</sup> The continuation of entertainment also depended on the capability of the venue to protect its customers. Traveling circuses, performing under canvas tents, were shut down.<sup>97</sup> Prior to the outbreak of war the Home Office considered what venues would likely need to be closed in the case of war,

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<sup>91</sup> The Pedestrians' Association, "Danger on the Home Front," *Quarterly News Letter*, No. 31, January 1940, 1.

<sup>92</sup> *ibid.*

<sup>93</sup> TNA: HO 199/3, Reigate Chief Constable to T.B. Braund, March 18, 1940.

<sup>94</sup> TNA: HO 186/200, *Minutes of Conference on Road Safety Held at the Home Office*, November 6, 1939, 2.

<sup>95</sup> TNA: HO 186/40, *Summary of Comments by Regional Commissioners Regarding Possible Relaxation of Present Lighting Restrictions*, 1939, 1-2.

<sup>96</sup> TNA: CAB 24/285, *Air Raid Shelters. Report of the Lord Privy Seal's Conference*, April 6, 1939, 15.

<sup>97</sup> TNA: HO 45/18530, *Places of Entertainment, Replies to Draft Memorandum*, March 20, 1939, 1.

considering cinemas and theaters, in particular. Theaters, cinemas, and most other public places of entertainment lacked adequate overhead cover to protect audiences from bomb explosions.<sup>98</sup> Short periods of warning were a concern and officials also suggested that the capacity of all venues ought to be restricted to 50-75% of normal.<sup>99</sup> Others suggested restricting business hours primarily to daytime and prohibiting queues in the open.<sup>100</sup> Officials, however, also recognized the importance of entertainment to civilian morale. Most cinemas and theaters remained open and stationed a staff member where he could hear the public warning siren. Upon hearing an air raid warning, the manager would inform the audience and suggest that they remain in their seats, although anyone wishing to do so was free to leave.<sup>101</sup> The Association of County Councils in Scotland, however, considered the danger of panic so high that they recommended closing all places of entertainment for the duration of a war.<sup>102</sup>

Football games especially caused logistical and safety concerns during the war. Football grounds, many holding 40,000 or more spectators, would lead to the type of large concentrations of people that the government wanted to avoid.<sup>103</sup> In addition to the concern over population concentration, such large gatherings also meant crowds making use of public transport and public roads, possibly at a moment of attack.<sup>104</sup> The competitive and financial nature of league matches, in particular, were seen as

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<sup>98</sup> TNA: HO 45/18530, *Air Raid Precautions in Places of Public Entertainment*, February 13, 1939, 1.

<sup>99</sup> TNA: HO 45/18530, *Places of Entertainment, Replies to Draft Memorandum*, March 20, 1939, 2.

<sup>100</sup> TNA: HO 45/18530, *Places of Entertainment, Replies to Draft Memorandum*, March 20, 1939, 6.

<sup>101</sup> TNA: HO 199/268, HSI 70, August 19, 1940.

<sup>102</sup> *ibid.*

<sup>103</sup> TNA: HO 186/2082, Home Security Committee, *Football Matches*, n.d., 1.

<sup>104</sup> *ibid.*

inappropriate during a time of war and only friendly matches were to be played.<sup>105</sup> The Football Association (FA) was instructed to limit attendance at matches to 8,000 spectators in evacuation areas, or half the capacity of the stadium, whichever was less.<sup>106</sup> Some in the Home Office also wanted to require all spectators to book tickets in advance, but the London Clubs, reluctant to go to this expense, argued that if the press did not “ballyhoo football” and considering the “second-rate nature of the games that will be provided” the likelihood that large crowds would try to come to the matches was slim.<sup>107</sup> The FA was also quick to ask that the Scottish Football Association and greyhound racing, often held on football grounds, be similarly restricted.<sup>108</sup> Crowds that did attend matches were to be distributed across the stadium, and stands, built out of concrete, were thought to offer some shelter.<sup>109</sup> The first returns of attendance numbers after the outbreak of war were positive. In Scotland, attendance was “very poor” due to the non-competitive nature of the matches.<sup>110</sup> In the Midland Region, attendance numbers were in some places less than a sixth of peacetime numbers, often influenced by lack of traveling facilities.<sup>111</sup> With the younger men away in the Forces or doing National Service, many potential spectators also stayed away from matches because the men now playing in them were “too old.”<sup>112</sup> Fear of being caught in the open during an air raid, the discomfort of carrying gas masks in the press of a crowd, the lack of popular players, and the absence

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<sup>105</sup> *ibid.*

<sup>106</sup> TNA: HO 186/2082, Sir Alexander Maxwell, September 19, 1939.

<sup>107</sup> *ibid.*

<sup>108</sup> *ibid.*

<sup>109</sup> TNA: HO 186/2082, Chairman of the Committee of Home Security, *Holding Football Matches*, September 18, 1939, 2.

<sup>110</sup> TNA: HO 186/2082, Director of Home Publicity to Sir Wilfrid Eady, September 26, 1939, 1.

<sup>111</sup> *ibid.*

of football pools also discouraged attendance.<sup>113</sup> When air raid warnings did occur during a match, however, instructions given to spectators differed by locality, with police in some places stopping matches while allowing them to continue elsewhere.<sup>114</sup> The Home Office subsequently issued a circular instructing that spectators out in the open should take cover at once, preferably under the stands or other available shelter, but to avoid flocking into the streets and overwhelming public shelters.<sup>115</sup> While the match was to be suspended upon the air raid warning, it needed only be abandoned if it was close to the end or there was no adequate cover for spectators.<sup>116</sup>

The Home Office sought to educate the public on ARP primarily through pamphlets and posters. In some instances, when information needed to be disseminated quickly, Head Wardens would instruct teachers, who would inform the children and, through the children, who, in turn, would tell their parents.<sup>117</sup> One ARP pamphlet was issued based on location, listing shelters, first aid posts, and warden posts in the local area, as well as reminding the reader of the major points of civil defense such as the use of respirators and the air raid warning signals.<sup>118</sup> The MHS' most popular pamphlet, *Air Raids What You Must Know What You Must Do*, included 60 pages of instructions on various ARP topics, such as types of bombs, war gases, first aid, shelters, and lighting restrictions, and

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<sup>112</sup> *ibid*, 2.

<sup>113</sup> TNA: HO 186/2082, Director of Home Publicity to Sir Wilfrid Eady, September 23, 1939.

<sup>114</sup> TNA: HO 186/2082, L.1 Division, August 28, 1940, 1.

<sup>115</sup> TNA: HO 186/2082, Ministry of Home Security, *Home Security Circular No. 222/1940, Open-Air Entertainments - Air Raid Warnings*, August 29, 1940, 1.

<sup>116</sup> *ibid*, 2.

<sup>117</sup> TNA: HO199/3, Letter to E.T. Crutchley, March 6, 1940.

<sup>118</sup> TNA: HO199/3, Borough of Luton, *Air Raid Precautions*, Leagrave Press, n.d.

sold for three pence.<sup>119</sup> The pamphlet *How You Can Help*, issued after the outbreak of war, sought to explain the part every British civilian could play in the struggle and brought together the various instructions issued by different government departments on ARP.<sup>120</sup> Public lectures were also an effective way of teaching the public about ARP, often employing lantern slides for added effect and demonstration.<sup>121</sup> Ten posters were printed, but held back until an air raid emergency, informing the public to carry their gas masks, to seek shelter quietly in case of a raid, to allow passersby to seek shelter in one's home, to take cover at once upon a warning, and for motorists to turn off their headlamps at night.<sup>122</sup> Over 50,000 of these posters were printed.<sup>123</sup> In 1940, the Chief Medical Officer of Scotland was appalled that the government seemed to think pamphlets it had issued to the public once only in 1939 were sufficient to ensure continued education simply because civilians had been instructed not to throw it away.<sup>124</sup>

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<sup>119</sup> Ministry of Home Security, *Air Raids What You Must Know What You Must Do* (London: HMSO, 1941).

<sup>120</sup> TNA: HO 186/315, *How You Can Help in Air Raids, At Home-At Work in National Service*, n.d.

<sup>121</sup> TNA: HO199/3, *Reigate Borough Air Raid Precautions. Public Lecture With Lantern Slides*, March 7, 1940.

<sup>122</sup> TNA: HO 199/3, *Home Security Circular 1940, Instructions to the Public as to What to Do in Air Raids, Description of Posters*, n.d., 4.

<sup>123</sup> TNA: HO 199/3, S. Clarke to J. Cahill, May 7, 1940.

<sup>124</sup> TNA: HO199/3, J.M. Mackintosh, *Copy of Minute*, February 4, 1940.



He argued that these pamphlets were “dead as the Dodo” and that it was necessary to communicate “again and again, always from a fresh angle” the information necessary to save civilian lives.<sup>125</sup> The Treasury took a more positive view, arguing that if heavy raids began, the public would adopt precautions of their own volition, because the Office balked at having to pay for more instructional posters.<sup>126</sup>

Other media were also employed to teach ARP. Short films on ARP subjects could be shown in cinemas before the main feature and reach large parts of the population in an easy-to-understand format. The film *If War Should Come* was produced prior to the outbreak of war, although before it could be shown the war had already started and the title was hastily changed to *Do It Now*.<sup>127</sup> This ten-minute film instructed civilians on fire precautions, storing food, building shelters, carrying gas masks, keeping the phone lines open, carrying an identity label, evacuation, lighting restrictions, air raid sirens, and on what to do in a gas attack.<sup>128</sup> Another short cinema filler film taught viewers how to put on and use the gas mask, instructing them to fit the mask and breathe out forcefully “never mind the noise it makes.”<sup>129</sup> In the 1940 film *London Can Take It*, the strong resilience of Londoners in the face of the Blitz was mythologized, particularly for viewers overseas. “Today the morale of the people is higher than ever before,” claims the narrator over scenes of Londoners carrying on the morning after a raid, adding that there was “no panic, no fear, no despair in Londontown.”<sup>130</sup> With permission from the Home

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<sup>125</sup> *ibid.*

<sup>126</sup> TNA: HO 199/3, H.D.H to Mr. Crutchley, April 12, 1940.

<sup>127</sup> *If War Should Come*. 1939; GPO Film Unit. Digital. <http://player.bfi.org.uk/film/watch-if-war-should-come-1939/>

<sup>128</sup> *ibid.*

<sup>129</sup> *How to Fit a Gas Mask* (1939, Ministry of Information).

<sup>130</sup> *London Can Take It*, directed by Harry Watt and Humphrey Jennings (1940, GPO Film Unit).

Office, one record company made two gramophone records for ARP purposes, one for local authorities to use at ARP exhibits, and the other for the public to learn the sounds and meanings of official air raid signals.<sup>131</sup> The record included the sounds of “action warnings” with wailing sirens, intermittent sirens, and wardens’ whistles, as well as the gas warning, “raiders passed” signal, and the gas all-clear signal, with commentary and explanations included on the record intended for the general public.<sup>132</sup>

A major aspect of civilian ARP was preparing one’s home for air raids. One pamphlet urged civilians to be prepared, stating that “A.R.P. begins in the home.”<sup>133</sup> Education campaigns and pamphlets specifically focused on preparing the home for attack, ensuring the home was darkened, and that everyone in the home knew what to do in the case of a raid.<sup>134</sup> Early instructions suggested selecting a ground floor room, preferably near a bathroom, covering the windows with wood to prevent splinters raining in, storing alongside gas masks, first aid kit, and non-perishable foods, and readying buckets with sand and water in case of fire.<sup>135</sup> A family might need to spend several hours in their Refuge Room and instructions therefore focused particularly on ensuring access to food, water, and sanitary arrangements.<sup>136</sup> In 1940 the Home Office issued a pamphlet, titled *Your Home As An Air Raid Shelter*, specifically to instruct civilians in the preparation of their homes, offering advice on selecting refuge rooms, sheltering,

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<sup>131</sup> TNA: HO 186/165, *H.M.V. Records of Air Raid Signals*, August 31, 1939.

<sup>132</sup> *ibid.*

<sup>133</sup> TNA: HO 186/315, *How You Can Help in Air Raids, At Home-At Work in National Service*, n.d., 4.

<sup>134</sup> TNA: HO 186/315, *How You Can Help in Air Raids, At Home-At Work in National Service*, n.d., 4-6.

<sup>135</sup> TNA: HO199/3, Department of Health for Scotland, *Draft, ARP and You*, November 1939, 1.

<sup>136</sup> TNA: HO199/3, *Reigate Borough Air Raid Precautions*, February 1940, 2.

protecting windows and doors, and fire precautions.<sup>137</sup> A large aspect of preparing a home for air raids was fire prevention. Civilians were instructed to keep at hand buckets of water and sand, to turn off gas and electricity when leaving, to train the entire family, and to clear all attic and roof spaces of clutter and everything flammable.<sup>138</sup>

Civilians were also instructed on what to do in the case of a gas attack. Detailed instructions taught civilians the differences between persistent and non-persistent gases and the different types of war gases that might be used by the enemy.<sup>139</sup> In a gas attack, the safest rooms would be those upstairs, and civilians were urged to ensure all windows and doors were closed and sealed, if possible.<sup>140</sup> Householders could prepare a gas-proof room in their house, by blocking cracks and seals with newspapers, felt, or mush made from soaking newspapers, although this meant the room could not be used for other purposes as it was not properly ventilated.<sup>141</sup> The primary protection for civilians, however, was the civilian gas mask, and no ARP instruction on gas attacks failed to mention the respirator and its vital importance (See Chapter 5 for an in-depth discussion of gas masks).<sup>142</sup> Some instructions focused only on mustard gas, suggesting civilians avoid gassed areas.<sup>143</sup> If one were splashed, however, he or she was to “forget decency” and remove all clothing, before taking a warm bath and scrubbing well with soap,

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<sup>137</sup> Ministry of Home Security, *Your Home As An Air Raid Shelter* (London: HMSO, 1940).

<sup>138</sup> Ministry of Home Security, *Air Raids What You Must Know What You Must Do* (London: HMSO, 1941), 15.

<sup>139</sup> *ibid*, 31, 33.

<sup>140</sup> *ibid*, 32.

<sup>141</sup> *ibid*, 45.

<sup>142</sup> *ibid*, 36-43.

<sup>143</sup> TNA: HO199/3, Department of Health for Scotland, *Draft, ARP and You*, November 1939, 2.

followed by donning clean clothes and lying near an open window.<sup>144</sup> One leaflet suggested that if “Hitler uses blister gas, Soap and Water will help to beat him.”<sup>145</sup>

The protection of special populations that were incapable of properly protecting themselves were a major concern. What to do with young children was a consistent problem throughout the war. While some suggested children should be sent home to seek shelter upon an air raid warning, others pointed out that the reduced warning time meant most children would be caught out in the street.<sup>146</sup> The government’s best solution for protecting children from air raids, and the one that was at least partially adopted, was to evacuate all school-aged children from areas where heavy raids were thought the most likely (see Chapter 7 for more on evacuation). Well before the outbreak of war there were concerns about how to deal with ARP in mental hospitals. Ministry of Health officials were frustrated that the ARP Department could not give a satisfactory answer on whether it was best to disperse or collect mental patients in case of an air raid.<sup>147</sup> Five big mental health hospitals had their patients evacuated entirely to other hospitals, although this was less a precaution to protect patients than a need for more hospitals that could accept air raid casualties.<sup>148</sup> Mental hospitals were also encouraged to make their own firefighting arrangements in regards to staff, equipment, and water supplies, because they would not be able to rely on assistance from the Fire Brigade in the event of a serious outbreak of fire.<sup>149</sup> The reasoning behind this lay in the location of most mental hospitals distant from

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<sup>144</sup> *ibid*, 2-3.

<sup>145</sup> TNA: INF 13/284, Ministry of Health, *If Hitler uses blister gas Soap and Water will help to beat him*, April, 1942, 1.

<sup>146</sup> TNA: ED 22/231, Board of Education, *Air Raid Precautions in Schools*, April 27, 1939, 3.

<sup>147</sup> TNA: MH 76/188, Sir Lawrence Brock to Sir George Chrystal, December 2, 1938, 1.

<sup>148</sup> TNA: MH 76/188, Mr. Neville, *Minute Sheet*, December 6, 1938, 2.

<sup>149</sup> TNA: MH 76/188, *Fire Precautions in Mental Hospitals in a National Emergency*, January 1939.

town centers, and that local fire brigades would have too much to do in the event of an attack to reach the hospitals in time.<sup>150</sup>

People were not the only ones needing protection and animal ARP was a serious concern both before and during the war. The Home Office formed a National ARP for Animals Committee (NARPAC) made up of representatives of animal welfare societies and veterinarians, with the objectives of preventing and alleviating animal suffering, protecting human beings from panic-stricken or contaminated animals, the conservation of animals of economic value, the provision and protection of food supplies for essential animals, and giving general information and advice to animal owners.<sup>151</sup> NARPAC arranged for the establishment of first aid posts to facilitate speedy treatment of animals injured in air raids.<sup>152</sup> Animal Guards registered all animals by visiting every animal owner in their street, recording the animals' information, and issuing a free numbered identity disc to be attached to the animal in case it became lost.<sup>153</sup> While the job of an Animal Guard was in some ways similar to that of an Air Raid Warden, the guards were not expected to be out during an air raid or actually deal with injured animals.<sup>154</sup> NARPAC also urged owners not to have their pets destroyed, as animals were in no greater danger from air raids than humans, but many did not take up this advice.<sup>155</sup> A considerable concern was how to protect animals from gas warfare as no real protective devices existed, and NARPAC offered a chart of war gases and their effects on various

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<sup>150</sup> TNA: MH 76/188, Letter to Miss E.A. Sharp, January 1939, 1.

<sup>151</sup> National ARP Animals Committee, *Wartime Aids for All Animal Owners* (Croydon: H.R. Grubb, 1941).

<sup>152</sup> *ibid*, 2.

<sup>153</sup> *ibid*, 2-3.

<sup>154</sup> *ibid*, 3.

<sup>155</sup> *ibid*, 5.

animals, such as horses, birds, and dogs, as well as first aid measures and possible protections.<sup>156</sup> The MHS also included instructions for pet owners in some of their ARP educational material. Ideally civilians would send their pets to the countryside for safety, as public shelters did not allow them, but this was not an option for the majority of the public.<sup>157</sup> Pet owners were urged to walk their dogs close to their homes so they could get back quickly if an air raid occurred.<sup>158</sup> For dogs frightened by noise, the MHS offered the remedy of tying cottonwool under the dog's earflaps with strips of cloth.<sup>159</sup> For nervous dogs it was suggested that they be dosed with bromide tablets obtained from the pharmacist, or aspirin if bromide was unavailable.<sup>160</sup> Commercial options included a powder given before a raid that would put the pet "into a quiet and sleepy state."<sup>161</sup> To protect dogs' paws from broken glass caused by air raids, the Dumb Friends' League made special dog shoes available for pet owners.<sup>162</sup> One veterinarian, however, argued that dogs showed little fear during raids and often showed better common sense than human beings in leading the way to shelter upon the sound of the sirens.<sup>163</sup>

Special air raid protections were also required for various government institutions and buildings. Westminster Abbey was a particular concern because of its large stained glass windows that were impossible to screen and officials considered closing the Abbey

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<sup>156</sup> *ibid.*, 20-21.

<sup>157</sup> Ministry of Home Security, *A.R.P. At Home Hints for Housewives* (London: HMSO, 1941), 24.

<sup>158</sup> *ibid.*

<sup>159</sup> *ibid.*

<sup>160</sup> *ibid.*

<sup>161</sup> "Dogs," *Essex Newsman*, December 9, 1939.

<sup>162</sup> "His 'Blitz' Shoes," *Liverpool Echo*, January 18, 1941.

<sup>163</sup> "Dogs in Air Raids," *Lichfield Mercury*, September 20, 1940.

after dark.<sup>164</sup> The Dean of Westminster, however, argued that closing the Abbey would severely affect civilian morale, and the Abbey remained open.<sup>165</sup> Windsor Castle was treated as its own civil defense precinct, with its own fire brigade, first aid post, stretcher parties, and rescue service.<sup>166</sup> Additionally, gas proof rooms were selected at Windsor and the entire staff and all occupants trained in anti-gas measures.<sup>167</sup> At Marlborough House, the sitting room was turned into a first aid station and all doors, windows, vents, and fireplaces were treated, caulked, and shuttered to prevent the entry of gas.<sup>168</sup> The Royal Mews had their own ARP Party that included stretcher bearers.<sup>169</sup> For museums, art galleries, and libraries a special booklet was printed with ARP instructions that included information on normal precautions and the civil defense services, as well as specific measures of protecting, storing, and evacuating sculptures, books, documents, and other such items.<sup>170</sup>

It was difficult to maintain people's interest in ARP, particularly when there was little or no enemy activity. While immediately after the outbreak of war in September 1939, civil defense measures had been fervently adopted across the country, by mid-1940, with no enemy air raids having occurred, apathy and boredom had set in. In March 1940 the Home Office held a special meeting to address how to revive public interest in

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<sup>164</sup> TNA: HO 45/18531, *Minutes*, October 3, 1938.

<sup>165</sup> TNA: HO 45/18531, De Labilliere to Col. Garforth, December 6, 1938; Paul de Labilliere to Colonel Garforth, February 2, 1939, 1.

<sup>166</sup> TNA: HO 205/376, Henry Martyn to E. de Normann, January 25, 1937.

<sup>167</sup> TNA: HO 205/376, de Normann to G. Kirwan, February 27, 1937.

<sup>168</sup> TNA: HO 205/376, *Provision of Refuge Accommodation, Marlborough House*, n.d., 2.

<sup>169</sup> TNA: HO 205/376, Arthur Erskine to Home Office, June 29, 1939.

<sup>170</sup> British Museum Board of Trustees, *Air Raid Precautions in Museums, Picture Galleries and Libraries* (London: William Clowes and Sons, 1939).

ARP.<sup>171</sup> Their main objectives were twofold: to reeducate the public by repeating and amplifying the information provided the prior year, and to devise and ready for use publicity material for when intensive bombing began.<sup>172</sup> The members of the meeting argued that this new publicity campaign should forego house-to-house distribution of materials and instead focus on posters, broadcasting, and newsreels.<sup>173</sup> Some Boroughs reissued ARP leaflets. The Reigate Borough leaflet reminded readers of the major points of ARP because “Five months of War with no Air Raids has, no doubt, lulled many of us into a false sense of security.”<sup>174</sup> Apathy extended also to public education events. One Chief Constable had anticipated that a public ARP lecture with lantern slides on a Saturday evening would be well-patronized, but was disappointed to find no more than 250 people present.<sup>175</sup>

A mainstay of the purpose of civil defense was the upkeep of civilian morale. Air raids were specifically seen as aiming to demoralize civilians and break down the “spirit of resistance to injustice which is necessary to knit a people together for a continuous war effort.”<sup>176</sup> It was thus necessary to ensure the spirit or morale of the people did not break. Queen Mary planned early on to remain in London partially because she believed this would have a beneficial moral effect upon the population who could not leave.<sup>177</sup>

Civilians were consistently told the importance of their own psychology in the war, and

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<sup>171</sup> TNA: HO199/3, *Notes of a Meeting held at the Home Office on 6th March, 1940, to discuss Civil Defence Publicity Measures*, March 14, 1940.

<sup>172</sup> *ibid*, 1.

<sup>173</sup> *ibid*, 2.

<sup>174</sup> TNA: HO199/3, *Reigate Borough Air Raid Precautions*, February 1940, 1.

<sup>175</sup> TNA: HO199/3, Reigate Chief Constable to T.B. Braund, March 14, 1940; Reigate Chief Constable to T.B. Braund, March 18, 1940.

<sup>176</sup> *ibid*, 1.

<sup>177</sup> TNA: HO 205/376, C.N. Hamilton to Sir Patrick Duff, May 30, 1938.



that the war would be won if only the home front remained strong.<sup>178</sup> “Come what may,” instructed one pamphlet, “we must show the enemy that our resistance cannot be broken.”<sup>179</sup> While ARP measures were intended to protect and save lives, the nature of education programs and ARP preparations also sought to ensure civilians avoided panic and stayed morally strong during a war. The *Yorkshire Post* suggested that ARP training must also be concerned with measures “for guarding against panic and disorder among the civil population.”<sup>180</sup> A Ministry of Information memo, specifically intended to aid civil defense regions in allaying air raid panic, defined the importance of ARP measures in preventing fear: “The public must be prepared beforehand to act in definite ways at given cues so that while performing certain pre-arranged actions more or less automatically they will have time to recover their mental poise and courage.”<sup>181</sup> A pamphlet told civilians that they could defeat the Nazis by “keeping calm, by carrying on quietly with your work, by finding out how best you can help, and by helping with all your might.”<sup>182</sup> The noise of air raids could also impact morale. The terrifying sound of the anti-aircraft guns and dropping bombs strained the nervous systems of civilians.<sup>183</sup> The air raid sirens themselves often had a depressing and demoralizing effect on the populace. One bishop suggested that instead of the common wail of the siren, it should instead play a “cock-a-doodle-doo” note to sustain the civilian spirit.<sup>184</sup> Winston

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<sup>178</sup> TNA: HO 186/315, *How You Can Help in Air Raids, At Home-At Work in National Service*, n.d., 8.

<sup>179</sup> *ibid.*, 9.

<sup>180</sup> “Air Raid Nerves,” *Yorkshire Post and Leeds Mercury*, December 8, 1939.

<sup>181</sup> TNA: HO 199/434, Ministry of Information, *Regional Circular No. 12, Hints for preventing or allaying panic in air-raids*, September 20, 1939, 4.

<sup>182</sup> TNA: HO 186/315, *How You Can Help in Air Raids, At Home-At Work in National Service*, n.d., 3.

<sup>183</sup> “Sound and Fury,” *The Scotsman*, September 21, 1940.

<sup>184</sup> *ibid.*

Churchill was impressed by the resilience of the civilian population as he saw their devotion to the cause despite the damage done by the enemy after months of heavy raids, seeing in them “the spirit of an unconquerable people.”<sup>185</sup>

To preserve the civilian “spirit” it was necessary to restrict demoralizing news and contain rumors. How and when to report on air raid casualties was a question that was addressed several times throughout the war. Up to mid-1940, the casualty numbers had been released in a monthly return, but, knowing the next report would show high casualties, the War Cabinet considered issuing weekly returns instead.<sup>186</sup> It was decided, however, to continue with monthly returns and simply express the casualty rate as a percentage of the normal death rate or peace-time road casualty rate, in which case air raid numbers “were not high.”<sup>187</sup> The government wanted to refrain from publishing exact casualty figures, because it was assumed the Germans could use such numbers to determine the effect and efficiency of their raids.<sup>188</sup> The release of casualty numbers and other particular information was often published solely to combat rumors. Regional Information Officers were allowed to distribute discrete particulars on bombings (such as the types of bombs used and material damage caused) to local Information Committees specifically so they could counter “noxious rumours.”<sup>189</sup> After bombings in Derby, Leicester, and Croydon, casualty figures were highly exaggerated and after a heavy raid in Coventry rumors abounded that many public shelters containing dead had simply been sealed never to be reopened. All such rumors were considered “harmful to public

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<sup>185</sup> Winston Churchill, *The Unrelenting Struggle* (Cassel & Co, 1942: 103-104.

<sup>186</sup> TNA: HO 186/2232, *Extract from Conclusions of a Meeting of the War Cabinet*, August 26, 1940.

<sup>187</sup> *ibid.*

<sup>188</sup> TNA: HO186/886, The Minister, The Secretary, May 12, 1942, 1.

<sup>189</sup> TNA: HO186/886, Letter to S.C. Leslie, November 29, 1940, 1.

sentiment.”<sup>190</sup> The MHS also wanted to particularly avoid information passed verbally, where such reports could easily be distorted and exaggerated.<sup>191</sup> Casualty lists were generally posted at local Town Halls for everyone to view, but names were added as they became known and one official worried that no one took the time to add the numbers together before spreading exaggerated rumors of casualties.<sup>192</sup> In most cases of air raids, exact casualty numbers were not authorized for publication and vague official references, such as “a very large number [of casualties],” only exacerbated the problem of rumors.<sup>193</sup> The MHS eventually reversed the policy of publishing casualty figures only in general terms, realizing that it encouraged the spread of rumors and had a depressing effect on morale.<sup>194</sup> Figures were now to be given when “the moral effect seems likely to be good.”<sup>195</sup> A committee organized to discuss the preservation of civilian morale during a war argued that people must be told the truth, but continued “But what is the truth? We must adopt a pragmatic definition. It is what is believed to be the truth. A lie that is put across becomes the truth, and may, therefore, be justified.”<sup>196</sup> One pamphlet specifically instructed readers to ignore all rumors, especially those spread by the enemy about horrible new weapons “in order to shake [British] morale.”<sup>197</sup>

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<sup>190</sup> *ibid.*

<sup>191</sup> TNA: HO186/886, Mr. Leslie, *Minute Sheet*, December 4, 1940, 1.

<sup>192</sup> TNA: HO186/886, Chairman Liverpool Information Committee to Herbert Morrison, December 4, 1940, 1.

<sup>193</sup> *ibid.*

<sup>194</sup> TNA: HO186/886, Letter to Herbert Morrison, January 2, 1941, 1.

<sup>195</sup> *ibid.*

<sup>196</sup> TNA: HO 199/434, Ministry of Information, *Memorandum on the Preservation of Civilian Morale*, 1939, 3.

<sup>197</sup> TNA: HO 186/315, *How You Can Help in Air Raids, At Home-At Work in National Service*, n.d., 9.

Concerns over morale also determined the response to the advent of the German V weapons in 1944. The government had intelligence on both the V1 pilotless aircraft and the V2 long-range rocket months before the first use of these by the Germans, but, despite newspaper reports on a secret new German weapon, made no statement on the existence of these bombs.<sup>198</sup> The first V1s, also known as “buzz bomb” or “flying bomb,” fell on June 13, 1944 within minutes of one another, causing a few casualties and damaging several homes.<sup>199</sup> Within a week over 670 flying bombs had made landfall, causing over 5,000 casualties in London, of which at least 500 proved fatal.<sup>200</sup> Home Secretary Herbert Morrison, however, in a speech to Parliament downplayed the effects of the flying bomb on the civil population, saying that “[t]he morale of the British takes a lot of upsetting.”<sup>201</sup> Newspapers, however, took quickly to the new weapon, referring to the flying bombs as the “robot menace<sup>202</sup>.” They criticized the government’s secrecy surrounding the flying bombs, arguing that this led to exaggerated rumors and indignation among the population.<sup>203</sup> The blind and indiscriminate way of the flying bomb, capable of attacking at all hours of the day, was “robot terrorism,” claimed the *Dundee Courier*; and imposed a special kind of strain on morale.<sup>204</sup> It was also argued that a bomber that had no control over its target, was intended solely to break civilian

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<sup>198</sup> TNA: HO 186/1833, *Warnings for Rockets and Pilotless Aircraft, Notes of Meeting at the Home Office*, February 16, 1944, 1.

<sup>199</sup> TNA: HO 186/1833, *Home Security Intelligence Summary No. 3490*, June 13, 1944, 1.

<sup>200</sup> TNA: HO 186/1833, War Cabinet, Civil Defence Committee, *Extract from Minutes of a Meeting Held in the Secretary of State’s Room, Home Office*, June 19, 1944, 1.

<sup>201</sup> TNA: HO 186/1833, House of Commons, *Air Raids (Flying Bombs)*, June 23, 1944.

<sup>202</sup> “Robot Menace,” *Evening Despatch*, October 31, 1944; “Robot Menace Has Made Them All Spotters,” *Derby Daily Telegraph*, July 8, 1944; “Holland Posts Will End Robot Menace,” *Daily Record*, November 6, 1944.

<sup>203</sup> “Robot Terrorism,” *Dundee Courier*, July 7, 1944.

<sup>204</sup> *ibid.*

morale, but the writer was quick to add that this would be a lost hope for the Germans.<sup>205</sup> The unique sound of the flying bombs could be mimicked by training aircraft throttling their engines as they flew over London, leading to significant anxiety among the population and the Air Ministry subsequently prohibited its bombers from flying over the city.<sup>206</sup> Londoners' morale was not only affected by the buzz bombs themselves, but also by how non-Londoners perceived their plight. Civilians and government officials alike believed that other regions were not moved about the bombing and that some regions were particularly apathetic to London's suffering.<sup>207</sup> A film about the flying bombs was prepared, but the censorship office refused to let it be shown.<sup>208</sup>

The first V2 rocket likely fell on September 8<sup>th</sup>, 1944 in Chiswick with a noise so that terrific windows rattled in adjoining boroughs and people in London's city center were disturbed.<sup>209</sup> While the government refused to make an official statement about the arrival of the V2 rocket, rumors and anxiety abounded amongst the civilian population. After over four years of war and bombing the potential arrival of another new and deadly weapon increased anxiety, with many civilians saying they could not "stand anything more at this stage of the war."<sup>210</sup> A majority of Londoners assumed this new bomb was the successor to the V1, even without a government statement on the topic, and many felt anxious and defenseless because there were now no warnings of attack and no barrage

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<sup>205</sup> "The Robot Plane," *Nottingham Journal*, June 17, 1944.

<sup>206</sup> TNA: HO 199/316, A.M. Whitehall to Bomber, Coastal, Transport, Flying Training, and Maintenance Commands, June 29, 1944; TNA: HO 199/316, Headquarters, Allied Expeditionary Air Force to Bomber, Coastal, Transport, Flying Training, and Maintenance Commands, June 19, 1944.

<sup>207</sup> TNA: HO 199/316, Mr. Briggs to Mr. Archibald, August 18, 1944.

<sup>208</sup> *ibid.*

<sup>209</sup> TNA: HO 199/316, Regional Information Officer London to D.B. Briggs, *Suspected Rocket Bomb*, September 9, 1944, 1.

<sup>210</sup> TNA: HO 199/316, *Daily Report on London Opinion*, September 13, 1944, 1.

balloons or anti-aircraft guns to stop them.<sup>211</sup> One rumor suggested that a rocket explosion instead had been caused by sabotage at a factory, while another claimed that the British government was exploding rockets to deter evacuees from returning to London.<sup>212</sup> Outside of the capital rumors began to circulate warning that “something dreadful” was happening in London.<sup>213</sup> Without official information, rumors claimed that rocket bombs had caused terrible damage in London.<sup>214</sup> A majority of people wanted the government to make an official statement, as the lack of information was worrying them, although some civilians expressed concern that a statement would make the bombing worse and provide information to the enemy.<sup>215</sup> The use of the V2 was seen as another futile attempt against British morale, as well as an effort to boost lagging German morale in the face of certain defeat.<sup>216</sup>

The limited air raid experiences of WWI had taught the British government the importance of protecting its civilians and prior to the outbreak of another war means were put into place to ensure this. WWI air raids on the British Isles had come as a surprise, with the government relatively unprepared to instruct, protect, and reassure its civilians. ARP measures, thrown together hastily, were sometimes disorganized and instructions often ignored by the civilians they were meant to protect. The Home Office, which came to be in charge of ARP prior to WWII, realized the importance of not only providing

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<sup>211</sup> *ibid.*

<sup>212</sup> *ibid.*

<sup>213</sup> *ibid.*

<sup>214</sup> *ibid.*

<sup>215</sup> *ibid.*

<sup>215</sup> “Hitler’s 2s Land in England,” *Hull Daily Mail*, November 10, 1944; “Gestapo V2 Gallup Poll to Bolster Morale,” *Derby Daily Telegraph*, November 11, 1944.

<sup>216</sup> “Hitler’s 2s Land in England,” *Hull Daily Mail*, November 10, 1944; “Gestapo V2 Gallup Poll to Bolster Morale,” *Derby Daily Telegraph*, November 11, 1944.

protection and education, but that for civilians to undertake ARP in a time of crisis the instruction had to be consistent, repetitive, and accessible. While many WWII ARP measures were directly responsible for the protection of life, limb, and property, many elements of ARP were also specifically intended to safeguard British morale. It was clear to government officials that civilian lives would be lost in heavy air raids, but that the nation could withstand tragedy as long as people believed they were still in the fight and that their government was doing everything possible to protect them. ARP was thus not only concerned with actual protection from air raids, but also a reassurance that such protection, and therefore survival, was possible.

## **Chapter 4 - The People's Army: The Civil Defense Services in World War II**

As it was vital that the general public were well-informed about ARP and could protect themselves when air raids transpired, there was a need for a well-organized system of services to assist and inform civilians if war came. Civil defense would provide a system of services that not only offered aid and protection during raids, but also ensured compliance with civil defense instructions. Despite facing some issues over recruitment, supply, compliance, and organization, the British civil defense system in WWII was relatively successful. Prior to the actual outbreak of war in 1939, the British government had put in place a system of civil defense that would provide various services before, during, and after an air raid. These services and the volunteers that manned them would help with protection before and during raids, offer vital information, provide medical aid, and, most important of all, ensure the preservation of civilian morale and good behavior. The services most vital to a successful civil defense program and the protection of morale were the Warden's Service, the Auxiliary Fire Service (AFS), the First Aid Posts (FAP) and Ambulance Service, the Rescue and Demolition Service, and the Women's Voluntary Services (WVS). All of these entities had set roles and functions prior to the start of war, but during the course of WWII, and after the experiences of air raids, most of the civil defense services were altered in scope and function.



The British civil defense services ensured that civilians were prepared to deal with air raids, knew how to protect themselves, would be rescued if trapped, treated in a timely manner if injured, rehoused if bombs had made them homeless, and fed. In a speech delivered in October 1940 Winston Churchill described the civil defense services as “forces [that] will descend upon the scene in power and mercy to conquer the flames, to rescue the sufferers, to provide them with food and shelter, to whisk them away to places of rest and refuge [...]”<sup>1</sup>

The government presented civil defense work as being vital to the good of the nation. Prior to the outbreak of war, Herbert Morrison, at the time the Leader of the LCC, urged Londoners to join the civil defense services so that “if, in the uneasy state of the world to-day, the need should arise, the life of the country could be carried on.”<sup>2</sup> One pamphlet urged readers to participate in national service because the nation’s “strength depends on the will of millions of free men and women to make voluntary efforts for the ideals we all stand for.”<sup>3</sup> Recruitment adverts often called on a citizen’s patriotism and referred to the need to help others. One such advert told its readers that both the ambulance service and stretcher parties were services “for the relief of suffering. Both are of national importance.”<sup>4</sup> A recruiting leaflet suggested that those serving as stretcher bearers or in the first aid parties would be engaged in “the noblest service of all—the saving of human life.”<sup>5</sup> An Ambulance Service poster called for “eighteen thousand

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<sup>1</sup> TNA: HO 186/2232, Winston Churchill, *Draft of Speech*, October 1940, 8.

<sup>2</sup> LMA: CL/CD/1/275, *Broadcast by Mr. Herbert Morrison*, June 21, 1939.

<sup>3</sup> TNA: HO 186/315, *How You Can Help in Air Raids, At Home-At Work in National Service*, n.d., 3.

<sup>4</sup> TNA: HO 186/2, *This Is Urgent*, n.d.

<sup>5</sup> TNA: HO 186/2, *This is Urgent*, Revised, n.d.

fearless women” to prove their mettle and bravery and “rise to the occasion.”<sup>6</sup> The importance of civilian morale was reflected throughout the civil defense services, with one training manual specifically stating that the behavior and competence of the civil defense volunteers would greatly influence the ability of the civilian population to resist.<sup>7</sup>

Some recruitment initiatives played on ideas of masculinity to draw male volunteers. Civil defense service was intended for men over military age, thus offering them a chance to prove their patriotism and masculinity through national service without fighting overseas. A recruitment advert for the Stretcher Parties and first aid parties suggested it was a job that required “courage and strength and endurance. It is a real man’s job.”<sup>8</sup> Another advertisement agreed that the courage, resolution, and endurance required by Stretcher Parties made it “a real man’s job for those between 25 and 50.”<sup>9</sup> A first aid party recruitment poster reminded viewers that it was a “man’s job” three times, adding that volunteering with the service was a “vital, front-line” job.<sup>10</sup>

Civil defense publicity also drew on ideas of personal responsibility. One poster urged people not to rely on a mysterious “they” that would prevent war, put out fires, or provide aid in case of injury, arguing instead that “There is only ‘you’. On ‘you’, rests the safety of yourself and your family.”<sup>11</sup> Another questioned what the reader had done for national service after weeks of reading civil defense advertisements, reminding him or

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<sup>6</sup> TNA: HO 186/2, *ARP We want eighteen thousand fearless women!* n.d.

<sup>7</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 12.

<sup>8</sup> *ibid.*

<sup>9</sup> TNA: HO 186/2, *A Message From Your Council*, 1939.

<sup>10</sup> TNA: HO 186/2, *ARP. Here is a job for real men!* n.d.

<sup>11</sup> TNA: HO 186/2, *ARP. Who are ‘they’?*, n.d.

her how important it was for everyone to be trained in ARP.<sup>12</sup> One ARP pamphlet reminded civilians that they were “responsible citizen[s]. Don’t wait to be told what to do. Think things out for yourself—DO things yourself!”<sup>13</sup> When considering how to recruit women for the Ambulance Service, one official pointed out that the type of women needed, middle-class women in comfortable circumstances without domestic ties, simply had not yet realized how great the need was for their help and should be encouraged to serve instead of moving out of dangerous areas.<sup>14</sup>

Recruitment for civil defense enjoyed varying degrees of success prior to, and after, the outbreak of war. Low recruitment numbers across the civil defense services before to the war made the Home Office consider some type of compulsory training for everyone, although the wide age range of 25 to 50 for males made such training too difficult to implement.<sup>15</sup> Had such a system already existed, it was argued, it could have provided the basis for filling the civil defense services.<sup>16</sup> During 1938, recruitment was relatively steady, with a sharp increase immediately after Germany’s annexation of Austria. By the middle of the year London alone had over 24,000 volunteers enrolled in the various civil defense services, a third of them women.<sup>17</sup> Across the country, 385,000 had joined one of the civil defense services in their region by the same time.<sup>18</sup> One bureaucrat suggested

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<sup>12</sup> TNA: HO 186/2, *ARP Every Day Counts!* n.d.

<sup>13</sup> TNA: HO 186/315, *How You Can Help in Air Raids, At Home-At Work in National Service*, n.d., 3.

<sup>14</sup> LMA: CL/CD/1/275, Letter to Sir John Anderson, February 1939, 2.

<sup>15</sup> TNA: HO 186/153, *Compulsory Service and Civil Defence*, 1939, 1.

<sup>16</sup> *ibid*, 2.

<sup>17</sup> TNA: HO 186/1, Air Raid Precautions Recruitment and Training of Personnel, Position as at 30th June 1938.

<sup>18</sup> TNA: HO 186/1, *Recruiting Returns*, June 22, 1938, 1.

another international crisis could rapidly swell recruitment numbers.<sup>19</sup> His words proved true when, by October 1938, enrollment for all services had ballooned to over one million volunteers.<sup>20</sup> Local authorities found, however, that volunteers they had enrolled immediately after the September crisis were no longer interested once tensions had eased.<sup>21</sup> The London Ambulance Service, for instance, enrolled 550 recruits in the ten-day period prior to the signing of the Munich Agreement, but by the middle of October recruits averaged only twenty per day, eventually down to only five per day in December.<sup>22</sup> Official war establishments for the civil defense services were established in early 1939 and authorized 1,131,900 whole and part-time volunteers for the ARP services, with an additional 300,000 for the AFS, specifically.<sup>23</sup> In the same year the Home Office suggested distributing civil defense recruitment leaflets with gas and electricity accounts to reach households.<sup>24</sup> One recruitment leaflet was distributed alongside telephone accounts in London and the provinces and reached as many as 637,000 homes.<sup>25</sup>

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<sup>19</sup> *ibid.*

<sup>20</sup> TNA: HO 186/1, Air Raid Precautions Statistical Section, *Statement, showing for the whole of England, Scotland and Wales, the Provisional Estimate of the numbers required, and the position as to Training of the Personnel Enrolled up to 31st October, 1938*, November 29, 1938.

<sup>21</sup> TNA: HO 186/1, *A.R.P. General*, 1939, 2.

<sup>22</sup> LMA: CL/CD/1/274, *London Ambulance Service, Volunteer Ambulance Drivers*, December 2, 1938.

<sup>23</sup> TNA: CAB 120/463, *Note on Civil Defence Establishments*, n.d., 1.

<sup>24</sup> TNA: HO 186/2, *A.R.P. Department Circular No. 206/1939*, September 1, 1939.

<sup>25</sup> TNA: HO 186/2, *Letter to the Secretary of State*, September 1, 1939.

The Home Office also asked employers to help in recruitment, urging them to display posters in their shops or factories and to issue recruitment leaflets to their employees.<sup>26</sup> A National Service Rally in London's Hyde Park in mid-1939 sought to interest potential recruits through exhibitions and a parade of AFS members marching past the King.<sup>27</sup>

While initially the outbreak of war had driven people to volunteer for civil defense, by early 1940 interest was again flagging. Renewed concerns over recruitment led the Home Office to consider lowering physical and age standards for enrollment in civil defense. By mid-1940 the loss of a limb or a hernia was no longer a bar to serving, provided the enrollee could perform the necessary actions, such as putting out an incendiary bomb.<sup>28</sup> To attend the Air Raid Precautions School, a requirement for almost all the civil defense services, the maximum age for male attendees was raised from 55 to 60 in 1940.<sup>29</sup> In June 1940 over 1.3 million volunteers were enrolled in the various civil defense services, with nearly 230,000 full-time, paid personnel.<sup>30</sup> Particularly concerning was the loss of civil defense personnel to industrial jobs with attractive wages, and a Defence Regulation in July 1940 forced members of the Rescue Service, First Aid Parties, and AFS to remain in service until released.<sup>31</sup> Civil defense enrollment numbers were precarious enough that full-time volunteers were barred from joining the Home Guard and unpaid, part-time civil defense volunteers required the written permission of

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<sup>26</sup> TNA: HO 186/2, *An Appeal to Employers*, September, 1939.

<sup>27</sup> LMA: CL/CD/1/275, *F.B. Circular No. 24/1939, National Service Rally*, June 9, 1939, 1.

<sup>28</sup> TNA: HO 186/164, Letter to S.D. Sargent, July 29, 1940; TNA: HO 186/164, Ministry of Home Security, *Air Raid Precautions School*, August 1940, 2.

<sup>29</sup> TNA: HO 186/164, Ministry of Home Security, *Air Raid Precautions School*, August 1940, 1.

<sup>30</sup> TNA: CAB 120/463, *Note on Civil Defence Establishments*, n.d., 2.

<sup>31</sup> *ibid.*

their superiors to so sign up.<sup>32</sup> Officials did fear, however, that a bar to Home Guard service might lead many civil defense part-time volunteers to resign, and urged discretion on civil defense leaders to ensure no loss of strength among the civil defense services.<sup>33</sup> By mid-1944, 1,250,000 men and 350,000 women were engaged in part-time civil defense work throughout Great Britain.<sup>34</sup>

The majority of the many who participated in civil defense were part-time volunteers. Part-time service required a minimum commitment of 48 hours over a four week period.<sup>35</sup> Unlike members of the Home Guard or armed forces, who received money for meals, part-time civil defense volunteers did not enjoy the same benefit, receiving “light refreshment” at the value of six pence for four hours of duty, or a meal valued at one shilling for twelve hours continuous duty.<sup>36</sup> In some areas, usually those more densely populated, a small number of personnel were engaged in full-time paid civil defense work. In Scotland, this number of paid civil defense workers never exceeded 10,000, a tenth of the total strength of Scottish civil defense.<sup>37</sup> The AFS, particularly, required full-time volunteers, although part-time workers were nonetheless accepted. In 1939, full-time civil defense workers received pay at the rate of £3 per week for men and £2 per week for women.<sup>38</sup> Youths engaged in full-time work were eligible as well: 20

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<sup>32</sup> TNA: CAB 120/242, *H.S.W.R. No. 66*, May 16, 1940, 1.

<sup>33</sup> *ibid.*, 2.

<sup>34</sup> *Statistics Relating to the War Effort* (London: HMSO, 1944), 4.

<sup>35</sup> TNA: HO 186/2463, *Scotland at War*, July 1945, 2.

<sup>36</sup> TNA: CAB 120/463, *Note on Civil Defence Establishments*, n.d., 4.

<sup>37</sup> *ibid.*

<sup>38</sup> LMA: CL/CD/247, *ARP Department Circular No. 197/1939, Pay for whole-time ARP volunteers called up in present emergency*, August 31, 1939.

shillings a week for those aged 16-17, and 25 shillings per week for age 17-18.<sup>39</sup> No pay was provided for those under 16 because the Home Office considered it undesirable that children of that age be enrolled in civil defense.<sup>40</sup> In 1942, the pay of civil defense workers was increased to £3 14s. for men and £2 12s. for women.<sup>41</sup> The increase in pay also sought to increase women's hours of duty from 48 per week to 60, an increase that caused considerable consternation. Opponents of this increased duty burden argued that women were required to carry out domestic duties as well as civil defense duties and the increase in pay could not allow female volunteers to complete their own responsibilities of shopping, washing, and feeding their families.<sup>42</sup> Full-time paid volunteers also qualified for annual paid leave on the basis of one day for each completed month of full-time service, up to a maximum of twelve days per year.<sup>43</sup> The hours of civil defense workers, both part-time and full-time, were not fixed and the Home Office specifically pointed out that for paid workers there could be no question of overtime pay because duty hours depended on when workers were needed.<sup>44</sup> Some decried the paying of civil defense volunteers as a waste of money, but Herbert Morrison argued that a full-time civil defense worker ready at his or her post was as entitled to receiving a wage as troops manning the Maginot Line.<sup>45</sup> Without the unpaid labor of part-time volunteers local

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<sup>39</sup> *ibid.*

<sup>40</sup> *ibid.*

<sup>41</sup> LMA: CL/CD/247, Ministry of Home Security, *Home Security Circular No. 39/1942, Civil Defence General Services. Increase in the basic Pay of Whole-time Personnel*, February 26, 1942.

<sup>42</sup> LMA: CL/CD/247, Margaret Hone to Mr. Blake, March 7, 1942; LMA: CL/CD/247, *London Civil Defence, Female Personnel, Extension of 48 to 60 Hours*, n.d.

<sup>43</sup> LMA: CL/CD/247, Ministry of Home Security, *ARP Department Circular No 336/1939, Annual Leave for Civil Defence Volunteers*, December 11, 1939.

<sup>44</sup> LMA: CL/CD/247, *ARP Department Circular No. 230/1939, Conditions of Service for ARP Personnel*, September 7, 1939, 1.

<sup>45</sup> LMA: CL/CD/1/275, *London's War Effort*, March 27, 1940, 3.

authorities could not have had functioning systems of civil defense, but the reliance on workers who might be engaged in other duties at a time of emergency was also an issue. Part-time volunteers who were at their regular place of employment during an air raid alert were not required to report to their civil defense duty stations. The Home Office urged local authorities to work out manpower needs and determine which part-time volunteers would be needed during a raid and for the part-time volunteers to get the consent of their employers to leave when necessary.<sup>46</sup> Local authorities were authorized to compensate volunteers for lost wages up to a maximum of 10s. per day for men and 7s. for women.<sup>47</sup>

Training such a large volunteer force for civil defense was achieved through a “snowball” system. A small number of volunteers attended one of the Home Office’s ARP Schools, where they could qualify as instructors. These instructors then trained select local personnel as local instructors, who in turn trained members of their local civil defense services and civilians.<sup>48</sup> There were two civilian ARP schools in the nation, one at Easingwold and another at Falfield.<sup>49</sup> Initially known as Civilian Anti-Gas Schools, by early 1939 the curriculum was extended to cover other aspects of civil defense and the course increased from twelve to seventeen days.<sup>50</sup> Graduates of the schools were awarded certificates divided into three categories: special, first-class, and second-class, differentiated respectively by being allowed to train civil defense personnel and

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<sup>46</sup> LMA: CL/CD/247, Ministry of Home Security, *ARP Department Circular No. 317/1939, Conditions of service of part-time Volunteers in ordinary employment*, December 2, 1939, 1.

<sup>47</sup> *ibid.*

<sup>48</sup> LMA: CL/CD/1/275, *Note for recruiting speech to be made by Mr. John Wilmot at a recruiting meeting to be held at the Mansion House*, May 1939, 3.

<sup>49</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 5.



instructors in all subjects, personnel in all subjects and instructors in some, and personnel only in the last category.<sup>51</sup> Uniformity in the training provided by these graduates locally was desirable and the Home Office issued a manual for the local officers responsible for ARP training to lay out specific training plans.<sup>52</sup> The first stage of ARP training involved basic individual training of every ARP volunteer, covering topics in ARP organization, incendiary bomb control, protection against High Explosive (HE) bombs, anti-gas, and first aid.<sup>53</sup> The first stage training lasted about four and a half hours, with full-time volunteers training while on duty and part-time workers making time as they could.<sup>54</sup> Second stage individual training intended to raise the standard of knowledge acquired in the first stage and provide technical experience specific to the civil defense job the volunteer had enrolled in.<sup>55</sup> Some second stage topics were covered in short or long courses, depending on the type of civil defense service. For instance, the short first aid course took six hours to complete, while the full first aid course lasted 18 hours.<sup>56</sup> While all civil defense volunteers received basic training in the major aspects of ARP, second stage training was focused specifically on the needs of the particular job the trainee was enrolling for. Trainees also practiced as teams in their respective jobs, as well as participating in combined exercises that provided practical knowledge in how the various

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<sup>50</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 32.

<sup>51</sup> *ibid.*

<sup>52</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 5.

<sup>53</sup> *ibid.*, 6.

<sup>54</sup> *ibid.*, 18.

<sup>55</sup> *ibid.*, 6.

<sup>56</sup> *ibid.*, 26-28.

civil defense services worked together.<sup>57</sup> Some civil defense workers also attended specialty schools for more advanced technical training, particularly in first aid and rescue work.<sup>58</sup> In 1942 a residential Civil Defence Staff College opened in Surrey to offer general instruction in all matters concerning the organization, administration, and operational control of civil defense to senior officials.<sup>59</sup> The Home Office also regularly issued ARP training bulletins that covered or updated topics such as crushing injuries, methods of resuscitation, first aid for eye injuries, and incendiary bombs.<sup>60</sup> After 1944 such bulletins also instructed civil defense personnel on how to recognize, safely approach, and deal with casualties of flying bomb attacks.<sup>61</sup>

All members of the civil defense services received anti-gas training. Individual Training First Stage, completed by all civil defense volunteers, included two 45-minute lessons on gas: one taught the nature of war gases and the other covered personal protection against gas.<sup>62</sup> There were four different anti-gas courses, with the specifics of instruction dependent on the trainee's particular civil defense job. The short anti-gas course consisted of over three hours of instruction in the inspection of respirators, respirator drill, fit testing respirators in a gas chamber, and the gas protection of rooms.<sup>63</sup> The full anti-gas course, about nine hours in length, taught trainees the fitting and disinfecting of respirators, the recognition of war gases, how to avoid becoming a

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<sup>57</sup> *ibid*, 6.

<sup>58</sup> *ibid*, 3.

<sup>59</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 33.

<sup>60</sup> Ministry of Home Security, *Civil Defence Training Bulletin No. 13* (London: HMSO, 1945).

<sup>61</sup> *ibid*, 11-13.

<sup>62</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 47-48.

<sup>63</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 51.

casualty, protection of the eyes and lungs, protection of the body, preventive cleansing, the gas protection of buildings, and how to perform routine duties while wearing a respirator.<sup>64</sup> The Anti-Gas Decontamination Course added four hours of instruction to the full anti-gas course on the general principles of decontamination, methods and materials, the decontamination of roads and open spaces, decontaminating buildings and their contents, and the decontamination of vehicles.<sup>65</sup> The Anti-Gas and Voluntary Aid Course took over eleven hours to complete and added onto the full anti-gas course information on the treatment of gas casualties.<sup>66</sup> Trainees were taught how to recognize contaminated casualties, how to handle them, how to determine the types of gas used, and what treatment to use for each.<sup>67</sup> Anti-gas training for ARP volunteers also included the wearing of a respirator in tear gas, to confirm fit and provide confidence in the mask, using either gas vans or gas chambers.<sup>68</sup> The Home Office also trained sixteen medical professionals specifically to instruct medical, dental, veterinary, and nursing professionals in anti-gas measures across the nation, both to ensure proper treatment of potential gas casualties and for its moral effect in enabling the civilian population to regard its medical advisers as qualified to assist at a time of need.<sup>69</sup>

First aid training was also a vital component of the skills of all civil defense volunteers. Volunteers received first aid instruction based on how likely they were to deal with casualties, but all the services received at the very least elementary instruction in

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<sup>64</sup> *ibid*, 52-53.

<sup>65</sup> *ibid*, 54.

<sup>66</sup> *ibid*, 55.

<sup>67</sup> *ibid*.

<sup>68</sup> TNA: HO 45/18147, *Air Raid Precautions Memorandum No. 5, 3rd Edition*, May 1939, 17.

<sup>69</sup> *ibid*, 7.

first aid procedures. Individual Training First Stage, taken by all civil defense volunteers, included a 45 minute lesson on basic first aid, covering topics such as shock, hemorrhage, fractures, burns, and dislocations.<sup>70</sup> The short first aid course offered lectures on the structure of the body, fractures, shock, the circulatory system, hemorrhage, wound treatment, burns, concussions, asphyxiation, artificial respiration, and hysterical attacks.<sup>71</sup> Practical lessons taught volunteers how to splint fractures, bandage wounds, apply a tourniquet, carry casualties, artificial respiration, and treating burns.<sup>72</sup>

All civil defense volunteers were issued uniforms and equipment. Initially uniforms consisted of cotton bluette combination suits for men and bluette coats for women, with weather protection, such as oilskin jackets, supplied locally.<sup>73</sup> Early in 1941 it was decided that rescue and first aid parties required a more durable uniform and boots and were issued with serge battledress, which was extended, after much discussion, to all civil defense services by the middle of that year.<sup>74</sup> Male volunteers received a battledress uniform of blue serge cloth, consisting of blouse, trousers, and greatcoat, while female volunteers' new uniform consisted of jacket, skirt or slacks, and greatcoat.<sup>75</sup> Women in the First Aid Post wore blue-grey flecked gabardine coats.<sup>76</sup> A gold civil defense badge was worn on the uniform, replacing the old red badges.<sup>77</sup> In most services both males and

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<sup>70</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 48.

<sup>71</sup> *ibid.*, 56-57.

<sup>72</sup> *ibid.*

<sup>73</sup> Ministry of Home Security, *Civil Defence Uniforms, Air Raid Precautions Memorandum No. 17* (London: HMSO, 1944), 1.

<sup>74</sup> *ibid.*

<sup>75</sup> *ibid.*, 4.

<sup>76</sup> *ibid.*

<sup>77</sup> *ibid.*

females wore a navy blue wool beret, although women could also opt for the felt hat.<sup>78</sup> Female drivers wore a peaked cap and nurses a white nursing cap.<sup>79</sup> Full-time workers were also issued with leather boots or shoes.<sup>80</sup> Each volunteer wore shoulder titles on his or her uniform to indicate to which service the volunteer belonged.<sup>81</sup> A few months after the introduction of the rationing system for clothing, civil defense was not immune and full-time volunteers were required to turn in as many as 18 clothing coupons for their uniforms.<sup>82</sup> Part-time volunteers did not need to surrender coupons, but were authorized to wear their uniform only when on duty.<sup>83</sup> All civil defense volunteers were authorized to wear war service chevrons and wound stripes on their uniforms.<sup>84</sup> Eligibility for such chevrons could arise from current or previous service the volunteer may have given, and was indicated through one chevron per twelve months of service.<sup>85</sup> Gold wound stripes, one for each wound, were authorized for wounds received during the current war, while a red wound stripe indicated injuries received in a previous war.<sup>86</sup>

Members of civil defense were provided with activities and entertainment similar to those enjoyed by members of the military. Civil defense duty often meant long periods of inactivity at a post waiting for incidents and both civilians and government officials quickly saw the need for offering some forms of entertainment. The LCC considered that

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<sup>78</sup> *ibid*, 10-11.

<sup>79</sup> *ibid*, 5.

<sup>80</sup> *ibid*, 10-11.

<sup>81</sup> *ibid*, 6.

<sup>82</sup> *ibid*, 13.

<sup>83</sup> *ibid*, 15.

<sup>84</sup> *ibid*, 42.

<sup>85</sup> *ibid*, 7.

<sup>86</sup> *ibid*, 8.

in light of the nature of civil defense work, every reasonable endeavor ought to be made to make working conditions comfortable.<sup>87</sup> Officials were especially worried that boredom among civil defense workers would adversely affect morale.<sup>88</sup> One private citizen offered to organize concerts for civil defense workers, with the entertainment including singers, comedians, a conjurer, and an accompanist. The funds to pay the artists were raised through private collection and no financial burden, other than providing the premises, lighting, and heating, fell on the LCC.<sup>89</sup> Four concerts a week were to be held in the County of London.<sup>90</sup> One proposal suggested a series of short lecture courses for the services, adding that this was likely to be successful as the level of intelligence among civil defense volunteers was “comparatively high.”<sup>91</sup> Topics for such lectures included “democracy and dictatorship,” “international affairs,” “the political structure and economic problems of the British Commonwealth,” and “foreign policy and economic organisation of Nazi Germany.”<sup>92</sup> The British Social Hygiene Council offered to give lectures to civil defense volunteers on venereal disease and while the LCC welcomed the offer there was some concern over offending the sensibilities of the young women making up the majority of the ambulance service.<sup>93</sup> One visitor to local civil defense posts noted the lack of reading material and suggested each volunteer be issued a ticket to the nearest library branch to enable them to check out material near their duty station.<sup>94</sup>

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<sup>87</sup> LMA: CL/CD/1/254, *Entertainments for civil defense forces*, October 24, 1939.

<sup>88</sup> LMA: CL/CD/1/254, *Memorandum*, n.d., 1.

<sup>89</sup> LMA: CL/CD/1/254, *Concerts provided by Mr. Harold Holt*, December 12, 1939.

<sup>90</sup> *ibid.*

<sup>91</sup> LMA: CL/CD/1/254, *Memorandum*, n.d., 1.

<sup>92</sup> *ibid.*, 2.

<sup>93</sup> LMA: CL/CD/1/254, Letter to Salmon, January 5, 1940.

<sup>94</sup> LMA: CL/CD/1/254, Helen Bentwich to Major Jackson, December 15, 1939.

The publisher of the Oxford University Press offered a donation of books drawn from the World's Classic series to be distributed to various posts of the London AFS.<sup>95</sup> Films also proved very popular with civil defense volunteers, but this required a duty post to have a projector and the estimate to supply just the AFS station in London was just under £10,000.<sup>96</sup> In London, civil defense volunteers were also invited free of charge to a preview of a film "of interest to 'people engaged on the home front'."<sup>97</sup> Competitions were sometimes put on for entertainment purposes. The London Civil Defence Region held a Fire Guard trailer pump competition where each local authority selected three crews, two male and one female, to compete in the standard operation of the pumps.<sup>98</sup> Teams also competed in a Rescue Service competition in the London region, with the winners receiving badges and trophies.<sup>99</sup> Civil defense volunteers also put their free time to good use by fabricating toys for children in war-time nurseries.<sup>100</sup>

Physical training programs were a useful way to keep volunteers entertained and fit for duty. Local authorities were asked to provide physical training, games, and recreation for their civil defense volunteers. The wide range of age and physical abilities among volunteers, however, meant that physical training could not be compulsory and needed to be carefully adapted to avoid injury and illness to participants.<sup>101</sup> One volunteer for every 250 civil defense workers was to take a class to qualify them to lead physical

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<sup>95</sup> LMA: CL/CD/1/254, Gerard Hopkins to Chief Officer London Fire Brigade, September 29, 1939.

<sup>96</sup> LMA: CL/CD/1/254, *Provision of films for fire service personnel*, March 21, 1941.

<sup>97</sup> LMA: CL/CD/1/254, *Entertainments for Civil Defence personnel*, July 30, 1941.

<sup>98</sup> LMA: CL/CD/1/254, *Fire Guard Trailer Pump Competition*, July 29, 1943.

<sup>99</sup> LMA: CL/CD/1/254, *London Region Civil Defence Rescue Service Competition*, September 28, 1943.

<sup>100</sup> LMA: CL/CD/1/254, *War-time Nurseries Toys and Educational Equipment*, February 4, 1944; *London Regional Training Committee Monthly Bulletin*, February 1944, 3.

<sup>101</sup> LMA: CL/CD/1/254, London Regional Circular No. 123, *Physical Training for the A.R.P. Services*, March 25, 1940, 1.

training for other members of civil defense.<sup>102</sup> While participation in physical fitness training was purely voluntary, particularly in the services tasked with heavy work, such as the rescue and demolition crews, it was strongly suggested that the men be informed of the need for physical training to properly carry out their duties.<sup>103</sup> In 1941 the Home Office issued a pamphlet titled *Physical Recreation for Civil Defence Workers* to provide clear instructions to all civil defense regions on how to facilitate such activities.<sup>104</sup> It suggested that physical training ought to form an integral part of the training of all civil defense workers and that it was essential for the upkeep of morale.<sup>105</sup> It further provided instructions on various types of activities that could be done at civil defense depots, such as keep-fit classes, indoor games like cards or chess, badminton, cricket, basketball, and table tennis.<sup>106</sup> For male civil defense workers there were also football, baseball, or rugby, while female workers could enjoy netball, rounders, or stoolball.<sup>107</sup> Competitions were also encouraged to stimulate interest, but the pamphlet cautioned organizers to not unduly overemphasize competition if physical training was the primary intent.<sup>108</sup>

With multiple services and hundreds of thousands of volunteers, discipline was a necessary element of civil defense. In one AFS brigade the men objected to the penalties

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<sup>102</sup> *ibid*, 2.

<sup>103</sup> LMA: CL/CD/1/254, *Civil Defence—Rescue, Shoring and Demolition Service—Physical Training*, April 6, 1940.

<sup>104</sup> LMA: CL/CD/3/111, Home Office, *Physical Recreation for Civil Defence Workers* (Hatfields: Keliher, Hudson & Kearns, Ltd, 1941).

<sup>105</sup> *ibid*, 4.

<sup>106</sup> *ibid*, 6-11.

<sup>107</sup> *ibid*, 7-8.

<sup>108</sup> *ibid*, 13.



of a deduction of wages and extra duty for offenses against discipline.<sup>109</sup> In London there were reports that some men of the Rescue Service were receiving money from members of the public as a reward or an incentive to salvage property. The LCC swiftly attempted to put a stop to this practice, informing volunteers that it was illegal to accept gifts and that any future occurrence should be brought to the attention of the officers in charge and the money returned.<sup>110</sup> The acceptance of gratuities was forbidden for all members of civil defense and volunteers were instructed to suggest to grateful civilians to donate such gifts instead to the Widows' and Orphans' Fund.<sup>111</sup> A General Order by the London Fire Brigade also suggests looting may have been a problem. The Order reminded volunteers that taking even the smallest article of property, even as a joke or souvenir, was looting by law and would be punished severely.<sup>112</sup> Officers were instructed to keep strict supervision over their men, particularly when attending calls and when going through houses after fires.<sup>113</sup>

The members of the civil defense services performed their jobs under dangerous and trying conditions. Many civil defense volunteers braved considerable danger in the performance of their jobs and the mortality rate for ARP workers may have been three times as high as that of the general population.<sup>114</sup> The drivers of ambulances, WVS vans, and despatch riders faced particular dangers driving at night during air raids,

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<sup>109</sup> LMA: CL/CD/1/275, *Report on Critical Comment in London Local Press, Week ending 15th March, 1941.*

<sup>110</sup> LMA: CL/CD/247, London County Council, *Improper Gratuities*, October 26, 1940.

<sup>111</sup> LMA: CL/CD/247, Deputy Chief Officer London Fire Brigade, *General Order A, Acceptance of Gratuities forbidden*, 1940.

<sup>112</sup> LMA: CL/CD/247, London Fire Brigade, *General Order No. 514, Looting*, November 18, 1940.

<sup>113</sup> *ibid.*

<sup>114</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 96.

maneuvering around bomb craters, debris, firemen's hoses, and trailing wires. One WVS driver had her sons lie across the bonnet of her canteen van to call out directions to her as she slowly nosed forward in the poor conditions.<sup>115</sup> First aid parties, with roads blocked by debris, would walk with their medical kits to their destinations as bombs and anti-aircraft fire raged around them.<sup>116</sup> Ambulance drivers left their broken down vehicles to carry patients through the streets to hospitals.<sup>117</sup> Other drivers refused to return to post and continued to ferry casualties to hospitals as bombs and debris fell around them.<sup>118</sup> Some ambulances were machine-gunned by enemy raiders as they made their way through the streets.<sup>119</sup> Wardens were usually first on the scene and thus actively engaged in rescue activities, digging through rubble as fires raged, protecting casualties from falling debris with their own bodies, or working to reach trapped civilians near broken gas mains.<sup>120</sup> Many wardens were casualties of bombs themselves, but carried on their duties to report incidents and rescue others who had become trapped.<sup>121</sup> Rescue workers tunneled into the remains of broken homes liable to collapse on top of them at any time, working next to tottering walls, broken gas mains, and fires.<sup>122</sup> Despite the dangers,

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<sup>115</sup> *ibid*, 100.

<sup>116</sup> *ibid*, 102.

<sup>117</sup> *ibid*.

<sup>118</sup> "Maghull Heroines at the Palace," *Liverpool Daily Post*, April 1, 1941.

<sup>119</sup> "Ambulance Workers Were Shot At; Braved Perils in Tunnel Rescues," *Derby Daily Telegraph*, June 15, 1945.

<sup>120</sup> "Ambulance Workers Were Shot At; Braved Perils in Tunnel Rescues," *Derby Daily Telegraph*, June 15, 1945, 144; "Brave Raid Rescues," *Liverpool Daily Post*, April 5, 1941; "Brave Wardens'," *Essex Newsmen*, May 24, 1941; "Saved Baby and Cripple," *Western Morning News*, September 26, 1941.

<sup>121</sup> "Liverpool's Heroes of the Air War," *Liverpool Echo*, January 18, 1941.

<sup>122</sup> "Brave Deeds in Home Defence," *Liverpool Daily Post*, January 18, 1941; "Liverpool's Heroes of the Air War," *Liverpool Echo*, January 18, 1941.

rescue workers continued to dig through debris as bombs fell around them.<sup>123</sup> WVS workers often arrived at incidents with their mobile canteens pitted with holes from bomb shrapnel and machine-gun bullets and these canteens continued to operate, serving tea to firefighters during the worst of the raids.<sup>124</sup>

The service and sacrifice of civil defense volunteers regularly received attention from both the state and the public. The film *London Can Take It* praised the work of the civil defense services, saying “they are the ones really fighting this war” and showcasing their dangerous and difficult nightly work as “the people’s army.”<sup>125</sup> Winston Churchill wanted it widely known that acts of gallantry by civil defense workers would be recognized.<sup>126</sup> The MHS was eager to publicize examples of “heroism and devotion to duty,” as well as mention in the press “other deeds” that did not merit an award for gallantry, not only as a reward for the individuals concerned, but also to “fortify and encourage others.”<sup>127</sup> Immediately after the start of the Blitz the MHS urged the heads of the civil defense services and local civil defense leaders to report acts of gallantry by their members, having only received twenty nominations to date when the prime minister had asked for one hundred.<sup>128</sup> King George VI specifically created two medals, the George Cross and the George Medal, to recognize “deeds of gallantry done by men and

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<sup>123</sup> “Brave Rescue Workers,” *Birmingham Daily Post*, January 14, 1941.

<sup>124</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 154; “Tremendous Task in Great Danger,” *Birmingham Mail*, December 30, 1940.

<sup>125</sup> *London Can Take It*, directed by Harry Watt and Humphrey Jennings (1940, GPO Film Unit).

<sup>126</sup> TNA: HO 186/2906, *Immediate Awards for Gallantry*, September 19, 1940, 1.

<sup>127</sup> TNA: HO 186/2906, *Stories of Gallant Conduct for Publication in the Press*, August 27, 1940.

<sup>128</sup> TNA: HO 186/2906, *Immediate Awards for Gallantry*, September 17, 1940.

women in all walks of civilian life.”<sup>129</sup> The George Cross was awarded for deeds of “great valour” and ranked immediately after the Victoria Cross and was to be worn before all other orders or decorations.<sup>130</sup> The first George Medal was awarded to an Air Raid Warden who rescued a blind woman trapped in the rubble of her house.<sup>131</sup>

The civil defense services stood by 24 hours a day, seven days a week during the whole of the war. Some stood by at a post or center while others were on call, and many volunteers remained ready to spring into action while at work, at the factory, or taking care of their household. As soon as the warning signal of approaching enemy aircraft reached the Control Room, the nerve center of civil defense, the whole organization stood alert. Wardens went on patrol while Rescue, First Aid, and Ambulance workers waited at their depots to be despatched to the next emergency. In heavy raids on densely populated areas, incidents often occurred in rapid succession, requiring efficient organization and tactical leadership to ensure resources were employed in the most efficient manner. Immediately after the raid, civil defense volunteers focused on recovery efforts, offering relief, shelter, and food to the affected civilian population.

### **The Cinderella of Civil Defense**

The most visible arm of British civil defense was arguably the Wardens’ Service. The Air Raid Warden was generally a part-time male volunteer over military age who was a well-known and respected member of his community and neighborhood. There were exceptions to this, however, and the Wardens’ Service ultimately was made up of

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<sup>129</sup> TNA: HO 186/2906, *Awards & Commendations for Gallantry or Conspicuous Devotion to Duty*, October 7, 1940, 1.

<sup>130</sup> TNA: HO 186/2906, *Awards for Gallantry*, n.d., 1.

men and women, young and old, part-time and full-time, and paid and unpaid volunteers. The warden was the civil defense worker most likely to interact with civilians on an everyday basis in the pursuit of his duties. While civilians encountered most of the other civil defense services only after having become the victim of a raid, their local warden was intended to be a constant source of information, reassurance, and control. The job of an air raid warden was difficult to define, but in essence the Wardens' Service was "the lever which brings into action the work of the other Services."<sup>132</sup> The warden's job as the frontline of civil defense and a source of reassurance and information for the public was vital to the nation and the official history of the Blitz cited the Wardens' Service as "a principal reason for the success of the civil defense services."<sup>133</sup>

The Wardens' Service was created before the outbreak of war. The Air Raid Precautions Memorandum No. 4, issued by the Home Office in 1938, explained the need for "an organization of citizen volunteers" who would perform important duties in time of an air attack and thereby augment and relieve the resources of the regular civil authorities for safeguarding the public.<sup>134</sup> With functions allied to those of the police, the Home Office intended wardens to be looked upon by the public for help and guidance as they did with the police.<sup>135</sup> For this reason the Wardens' Service was often organized under the control of the Chief Constable or directly under the Chief Officer of Police, although each local authority could implement its own organizational scheme that best

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<sup>131</sup> "George Medal for Warden," *Yorkshire Post and Leeds Mercury*, October 1, 1940.

<sup>132</sup> TNA: HO 186/488, Letter to Sir George Gater, February 24, 1941.

<sup>133</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 144.

<sup>134</sup> Home Office, *Air Raid Precautions Memorandum No. 4, Air Raid Wardens'* (London: HMSO, 1938), 1.

<sup>135</sup> *ibid*, 5.

fitted their existing police and governmental organizational structure.<sup>136</sup> Each area was to have a Chief Warden, who would be responsible for the recruitment and training of wardens, often with assistance from the police.<sup>137</sup> The local organization of the Wardens' Service depended on population size. A town of 250,000 inhabitants, under the purview of a Chief Warden, would be divided into Divisions each with a Divisional Warden. Each Division contained ten Groups, each led by a Head Warden and each Group was made up of four to five wardens' posts, with a Senior Warden in charge at each.<sup>138</sup> An important aspect of the organization of every wardens service was the distribution of wardens' posts in the local area. In residential areas the Home Office suggested one post per 500 residents, while in industrial or business areas the location would be determined by distance, about one post every quarter of a mile.<sup>139</sup> A warden's post needed to be in a prominent location, both to provide good observation to the warden and to allow the public to easily find it.<sup>140</sup> Ideally, such a post would also be connected to the telephone network, but if this was not possible the post needed to be in close proximity to a public call box or a police box to allow the wardens to make their reports quickly and easily.<sup>141</sup> The post also needed to be large enough to provide storage for the protective gear issued to wardens and offer protection for wardens against blast and splinters of HE bombs.<sup>142</sup> The number of wardens in an area was determined by population density. In important

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<sup>136</sup> *ibid*, 6-7.

<sup>137</sup> *ibid*.

<sup>138</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (2nd Ed.)*, *Organisation of the Air Raid Wardens' Service* (London: HMSO, 1939), 7.

<sup>139</sup> Home Office, *Air Raid Precautions Memorandum No. 4*, *Air Raid Wardens'* (London: HMSO, 1938), 9.

<sup>140</sup> *ibid*.

<sup>141</sup> *ibid*.

<sup>142</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (2nd Ed.)*, *Organisation of the Air Raid Wardens' Service* (London: HMSO, 1939), 4.

urban areas the ratio was six wardens per 500 population, twice the ratio of other areas.<sup>143</sup> Wardens were also sometimes appointed to specific buildings or non-residential areas. The staff of Westminster Abbey, some 40 or 50 men, all underwent warden training to ensure proper air raid precautions were in place.<sup>144</sup>

The recruitment of volunteers to fill the Wardens' Service enjoyed varying degrees of success. Because of a warden's prominent place in public it was vital that a volunteer be "of good character, level-headed, and free from obvious physical or temperamental disability."<sup>145</sup> The Home office specifically suggested that wardens be older men who had a good sense of responsibility and inspired confidence among their neighbors.<sup>146</sup> While in the initial organization of the Wardens' Service only men were qualified to volunteer, by 1939 women were also allowed to become air raid wardens.<sup>147</sup> Through 1941 at least one in six wardens was a woman.<sup>148</sup> By mid-year 1938 some boroughs had only enrolled 25% of their needed wardens, while other boroughs had yet to take any civil defense measures.<sup>149</sup> The Munich Crisis swelled recruitment numbers and by the end of October almost 470,000 wardens had been enrolled out of the needed 520,000.<sup>150</sup> London was a

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<sup>143</sup> *ibid*, 5.

<sup>144</sup> TNA: HO 45/18531, Paul de Labilliere to Colonel Garforth, February 2, 1939, 1.

<sup>145</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (1st Ed.)*, *Air Raid Wardens'* (London: HMSO, 1938), 10.

<sup>146</sup> *ibid*.

<sup>147</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (1st Ed.)*, *Air Raid Wardens'* (London: HMSO, 1938), 10; Home Office, *Air Raid Precautions Memorandum No. 4 (2nd Ed.)*, *Organisation of the Air Raid Wardens' Service* (London: HMSO, 1939), 10.

<sup>148</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 145.

<sup>149</sup> TNA: HO 186/1, *Twenty-Six Metropolitan Boroughs*, n.d.

<sup>150</sup> TNA: 186/1, *STATEMENT showing for the whole of England, Scotland and Wales the PROVISIONAL ESTIMATE of the numbers required, and the position to as to TRAINING of the PERSONNEL ENROLLED up to 31st October, 1938*, November 29, 1938.

particularly difficult case, because although out of the required 49,805 wardens over 36,000 had been enrolled by the end of 1938 some boroughs, such as Chelsea, had twice as many wardens as required while other boroughs, such as Bethnal Green, could not even fill 50% of their quota.<sup>151</sup>

Wardens received training specific to their jobs, which incorporated parts of the training of almost all the other civil defense services. The basic knowledge needed by an air raid warden was, particularly, how to provide aid during an air raid and proper reporting techniques, as well as the organization of the civil defense services, and details on the respirator distribution scheme and respirators themselves.<sup>152</sup> It was important that wardens were fully conversant of Home Office guidance notes issued to the public to allow them to properly advise civilians in their sectors.<sup>153</sup> Warden training was conducted in two phases—individual and collective. Individual second stage training included local information, relations with police and public, fitting respirators, principles of the air raid warning system, message writing and reporting, map usage, protection against HE bombs, dealing with incendiary bombs, organization of the AFS, elementary first aid, damage to water or sewer mains, and the equipment of wardens' posts.<sup>154</sup> Wardens were also required to complete the short First Aid Course and a basic course on incendiary bomb control.<sup>155</sup> The basic training of a warden, not including the locally arranged course

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<sup>151</sup> TNA: HO 186/1, A.R.P. Statistical Section, *Statement showing for each of the Warden Boroughs, the Provisional Estimate of the Numbers required, and the positions as to Training of the Personnel Enrolled up to 31st October, 1938*, November 29, 1938.

<sup>152</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (1st Ed.), Air Raid Wardens'* (London: HMSO, 1938), 11.

<sup>153</sup> *ibid.*

<sup>154</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (2nd Ed.), Organisation of the Air Raid Wardens' Service* (London: HMSO, 1939), 11.

<sup>155</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 8.



on a warden's special duties or team training, took over 27 hours to complete, a significant investment in time particularly for part-time volunteers.<sup>156</sup> While the course on a warden's duties was locally arranged, the Home Office nevertheless suggested keeping periods of instruction short and classes relatively small.<sup>157</sup> Collective training would be completed with other wardens, preferably at the warden's duty location, and include exercises on the distribution of respirators, manning a post, patrolling, and actions to be taken upon hearing an air raid warning.<sup>158</sup> Wardens in training also practiced effective message writing on authorized message pads, the use of telephones, communications when normal channels failed, dealing with casualties, guiding other services to incidents, and what to do in case of panic.<sup>159</sup> By 1940, the government had issued a training manual intended to cover Individual Training, Stage I for all civil defense workers, which included instructions on first aid, anti-gas measures, incendiary bomb control, protection against HE bombs, and the organization of civil defense.<sup>160</sup> The warden training syllabus included a variety of subjects and thus it was often time consuming and it was not always possible to provide lecturers on every subject, resulting in some topics being covered through issue of printed materials only.<sup>161</sup> Some suggested that wardens also receive special training in psychology to better handle cases of "air raid nerves" and shock among the civil population.<sup>162</sup> Some localities, such as Leeds,

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<sup>156</sup> *ibid.*

<sup>157</sup> *ibid.*, 29.

<sup>158</sup> *ibid.*, 18.

<sup>159</sup> *ibid.*, 18-19.

<sup>160</sup> LMA: CE/WAR/3/57, *Basic Training in Air Raid Precautions, Air Raid Precautions Training Manual No. 1* (London: HMSO, 1940).

<sup>161</sup> LMA: CL/CD/1/254, *Lectures to air-raid wardens - Additional brigade staff*, March 22, 1939, 1.

<sup>162</sup> "Air Raid Nerves," *Yorkshire Post and Leeds Mercury*, December 8, 1939.

arranged lectures on psychology for their wardens.<sup>163</sup> Anti-gas training was also vital to the job of the warden. Wardens took the full anti-gas course, which lasted about nine hours.<sup>164</sup>

Most of a warden's duties, however, did not revolve around actual air raids. The chief duty of an air raid warden was to advise fellow citizens on official air raid precautions, to assist in cases of trouble arising from air raid damage and to know how and where to find relief measures—to generally “act the part of a good neighbor.”<sup>165</sup> It was a vital requirement of the job to establish good relations with the civilians in a warden's sector to ensure compliance and avoid conflict.<sup>166</sup> A warden, patrolling his or her sector nightly, was also the perfect person to ensure compliance with lighting restrictions. Wardens, however, had no legal power to compel compliance and could only attempt to persuade civilians through appeals to patriotism or advisements of danger.<sup>167</sup> The Home Office considered early on that the fitting and distribution of respirators to the civilian population would require a considerable number of trained personnel who knew the local area. Wardens were the perfect solution, as their organization revolved around communities, their training included information necessary to fit and distribute gas masks, and their duties would not fully start until the outbreak of war.<sup>168</sup> After war had broken out and respirators had been issued to the civil population, much of a warden's

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<sup>163</sup> *ibid.*

<sup>164</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (2nd Ed.), Organisation of the Air Raid Wardens' Service* (London: HMSO, 1939), 10.

<sup>165</sup> Home Office, *Air Raid Precautions Memorandum No. 4, Air Raid Wardens'* (London: HMSO, 1938), 1.

<sup>166</sup> TNA: HO 186/248, J.W. Norral to Mr. Kurwan, April 6, 1940, 1.

<sup>167</sup> TNA: HO 186/2204, *Powers of the Warden*, n.d., 3.

<sup>168</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (1st Ed.), Air Raid Wardens'* (London: HMSO, 1938), 3.

time was often taken up with the inspection of respirators. Wardens were required to make house-to-house inspections in their duty section of all occupants' gas masks and to mark the mask's condition on household record cards. Depending on the region, this inspection was carried out anywhere between every month to every six months.<sup>169</sup> It was also the duty of a warden to distribute and ensure the correct completion of the Householder's Card, a card issued to every household that included a permanent reminder of air raid precautions and vital local information, such as the location of the closest wardens' post, the nearest First Aid Post, the closest local warden and Senior Warden, and where to obtain help in the case of a fire.<sup>170</sup> During public gas exercises wardens were encouraged to use the opportunity to check the fitting and efficiency of the respirators worn by civilians observing the exercise. Additionally, it was the wardens' job to ensure that civilians who wandered into a gas exercise donned their respirators swiftly and in the proper manner.<sup>171</sup> While a warden did not have the legal power of a policeman, common law allowed for wardens to make a citizen's arrest when witnessing a felony. Wardens were instructed that they might witness felonies such as stealing, housebreaking, burglary, or malicious damage and be required to respond, but they were also advised to use great caution when making an arrest to avoid doing so wrongfully.<sup>172</sup>

During an air raid a warden had a specific set of duties to fulfill. Most wardens operated out of fixed duty posts, manned by as many as three wardens during a raid, with

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<sup>169</sup> TNA: HO 186/1066, Letter to D. Kirwan, *Inspection of Respirators*, April 23, 1943.

<sup>170</sup> TNA: HO 186/665, *Home Security Circular No. 70/1940. Instructions to the Public on What to Do in Air Raids*, April 20, 1940, 1.

<sup>171</sup> Ministry of Home Security, *Notes on Gas Tests and Exercises* (London: HMSO, 1942), 3.

<sup>172</sup> TNA: HO 186/2204, *Powers of the Warden*, n.d., 1.

a defined sector under their purview.<sup>173</sup> In rural areas some wardens operated out of their own homes.<sup>174</sup> Upon the sounding of an air raid warning each warden would assemble at his or her wardens' post.<sup>175</sup> It was vital that the wardens' post be continuously manned to facilitate the reporting and relaying of messages.<sup>176</sup> One of a warden's primary duties was to report the falling of bombs and damage caused in their duty section, allowing ARP Headquarters, the fire brigade, and police to immediately direct their services to the proper location.<sup>177</sup> During his patrol the warden was not only in a good position to report bomb damage, but would also be the first to determine that a gas attack had occurred.<sup>178</sup> Thus a warden during an air raid was a first responder who could direct the proper services as needed to the right location. Being the first on the scene of an incident could also mean that wardens had to perform jobs such as rescue and first aid before the arrival of the appropriate parties.<sup>179</sup> One job that was specifically outside the purview of a warden's responsibilities was the fighting of fires, as the requirements to man posts, make reports, and give advice to the public would preclude them from managing both.<sup>180</sup> Nevertheless, wardens were instructed to help householders fight incipient fires before

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<sup>173</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (1st Ed.)*, *Air Raid Wardens'* (London: HMSO, 1938), 3.

<sup>174</sup> *ibid.*

<sup>175</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (2nd Ed.)*, *Organisation of the Air Raid Wardens' Service* (London: HMSO, 1939), 4.

<sup>176</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (1st Ed.)*, *Air Raid Wardens'* (London: HMSO, 1938), 4.

<sup>177</sup> *ibid.*, 2.

<sup>178</sup> *ibid.*

<sup>179</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 144.

<sup>180</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (1st Ed.)*, *Air Raid Wardens'* (London: HMSO, 1938), 1-2.

the arrival of the fire brigade to prevent the spread of flames to other buildings.<sup>181</sup> As a well-respected member of his or her community, the warden was also responsible for shepherding members of the public to the nearest shelter and to administer first aid measures to any casualties until more-skilled help could arrive.<sup>182</sup> Most important, however, was the mere presence of the warden in a community during a raid to set an example of “coolness and steadiness” in the face of danger, ensuring good morale and a mitigation of panic among the population.<sup>183</sup> Additionally, immediately after a raid the warden was to become a barrier against rumors by displaying “heartly skepticism” in the face of exaggerated reports and through quoting fantastic examples that had proven untrue previously.<sup>184</sup> Because of the warden’s importance in reassuring civilians, a committee on preserving civilian morale suggested that “[e]xcitable air-raid wardens should be combed out.”<sup>185</sup>

In the event of a gas attack an air raid warden would have performed a specific set of actions. If a gas bomb exploded in his vicinity, the warden would don his own gas mask, give the gas warning by sounding his rattle, and reconnoitre the gassed area.<sup>186</sup> The rattle was intended to be operated with a steady swing instead of isolated jerks and wardens were specifically instructed “not [to] be afraid of making a noise with them.”<sup>187</sup> It was the warden’s responsibility to ensure all civilians near a gassed area put on their

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<sup>181</sup> *ibid*, 4.

<sup>182</sup> *ibid*, 3.

<sup>183</sup> *ibid*.

<sup>184</sup> TNA: HO 199/434, Ministry of Information, *Regional Circular No. 12, Hints for preventing or allaying panic in air-raids*, September 20, 1939, 1.

<sup>185</sup> TNA: HO 199/434, Ministry of Information, *Memorandum on the Preservation of Civilian Morale*, 1939, 9.

<sup>186</sup> Ministry of Home Security, *Notes on Gas Tests and Exercises* (London: HMSO, 1942), 1.

<sup>187</sup> *ibid*, 2.

respirators and to direct them away from the danger area to the nearest cover.<sup>188</sup> The warden would also need to render first aid and direct casualties to Public Gas Cleansing Centers if the victim had become contaminated.<sup>189</sup> It was vital that wardens knew how to test for the presence of gas and determine its type, to allow them to determine when to don protective clothing and to assist the Gas Identification Officer (GIO).

Not everyone welcomed the sometimes intrusive presence of an air raid warden. In the months prior to the Blitz, when bombs began falling on civilian targets, wardens seeking to usher people to shelter were often treated disrespectfully.<sup>190</sup> After initial issues with the recognition of a warden's authority, by 1939 all wardens were issued with a card of appointment as evidence of their authority in dealing with householders.<sup>191</sup> This also helped to prevent false representation, such as in a case in Dumbartonshire where a man received a warning from the court for posing as an air raid warden to admonish his neighbor about visible light coming from his house.<sup>192</sup> In Kent, wardens going door-to-door to inspect respirators were often "rudely received" and had doors slammed in their faces, making many disinclined to carry out further inspections.<sup>193</sup> One Group Warden complained that his wardens were "roundly abused" while on patrol and were treated "more like 'Gestapo' than neighbours."<sup>194</sup> While some wanted to fine noncompliant

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<sup>188</sup> *ibid.*, 1.

<sup>189</sup> *ibid.*

<sup>190</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 7.

<sup>191</sup> Home Office, *Air Raid Precautions Memorandum No. 4 (2nd Ed.)*, *Organisation of the Air Raid Wardens' Service* (London: HMSO, 1939), 9.

<sup>192</sup> "Posed as Air Raid Warden," *Edinburgh Evening News*, September 11, 1939.

<sup>193</sup> TNA: HO 186/248, W.L. Platts to Senior Regional Officer, *Air Raid Precautions. Wardens'*, March 18, 1940.

<sup>194</sup> TNA: HO 186/315, *A.R.P., Worcester*, n.d., 7.

householders under Section 79 of the Civil Defence Act, others cautioned against such a stretch of powers and suggested instead that if wardens commanded proper respect in their community there would be no issue.<sup>195</sup> One official worried that if wardens were tasked with reprimanding civilians out in public without their respirators that it could “prejudice their relations with their flock” and warned against asking wardens to do this.<sup>196</sup>

Many wardens felt under-appreciated compared to the other civil defense services. In London, wardens grew increasingly discontent early in the war because they did not qualify for pay for rank, did not have proper uniforms, and did not receive a free issue of army boots.<sup>197</sup> A letter to Herbert Morrison, Minister of Home Security in 1941, accused the MHS of “consistently [making] less favourable provision for the Wardens’ Service than for other Civil Defence and the Auxiliary Fire Services.”<sup>198</sup> Among the many instances of “discrimination” against the wardens, the writer listed the lack of greatcoats, mackintoshes, and boots for wardens, not qualifying for pay for rank or meal allowances, service as a warden not being considered an alternative to military service while other civil defense work was so regarded, and receiving uniforms of inferior quality when services with less strenuous jobs were issued with two good uniforms.<sup>199</sup> The writer further argued that such treatment would adversely affect the morale and efficiency of the London Wardens’ Service.<sup>200</sup> One official worried that several issues in London had

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<sup>195</sup> TNA: HO 186/248, Sheepshanks to Burrell, April 9, 1940, 1.

<sup>196</sup> TNA: HO 186/2116, Secretary, 1941.

<sup>197</sup> TNA: HO 186/488, Ernest Gowers, E.R.G.R. Evans, and Charles W. Key to the Minister of Home Security, February 20, 1941.

<sup>198</sup> TNA: HO 186/488, Letter to Herbert Morrison, February 22, 1941, 1.

<sup>199</sup> *ibid.*, 2.

<sup>200</sup> *ibid.*

caused discontent among the wardens. Wardens were the sole service not directly under the purview of the county boroughs and thus when favors were available to be dispensed they went to the other services under county borough control.<sup>201</sup> Additionally, wardens, unlike the other services, had no representatives on the Borough Council to advocate for their interests.<sup>202</sup> The official described the wardens as “looking for insults for a long time past” and urged that wardens be included in the new uniform issue to prevent discontent.<sup>203</sup> A survey of other civil defense regions, however, found that London wardens were not alone in their grievances. Nottingham civil defense officials were “gravely apprehensive” of the consequences if wardens were not given the new uniforms.<sup>204</sup> In Bristol wardens complained that even though their job required them to continuously man their posts and patrol, and other services were only on duty during an alert, wardens were still treated less favorably.<sup>205</sup> One female warden complained about the perception of full-time paid wardens as “taking the job for pin money,” arguing that many volunteers, like her, needed to supplement family income with husbands at war or businesses negatively affected.<sup>206</sup> Other wardens agreed that they were looked down upon for receiving pay, one saying that despite the long hours worked he was made to feel like “a slacking thief.”<sup>207</sup> Such incidents led the Wardens’ Service to consistently believe it

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<sup>201</sup> TNA: HO 186/488, Letter to Sir George Gater, February 24, 1941, 2.

<sup>202</sup> *ibid.*

<sup>203</sup> *ibid.*

<sup>204</sup> TNA: HO 186/488, *Summary of Replies from Regional Commissioners on representations to the Minister from the Regional Commissioners for London*, n.d., 1.

<sup>205</sup> TNA: HO 186/488, South Western Regional Office to Oswald Allen, March 6, 1941, 1.

<sup>206</sup> Warden, “The Air Raid Warden,” *Liverpool Echo*, December 6, 1939.

<sup>207</sup> TNA: HO 186/315, *A.R.P.*, n.d., 4.



was being treated as the “Cinderella of Civil Defence.”<sup>208</sup> One official facetiously commented that the wardens-as-cinderella comparison was made in the hope that they would receive “the traditional reward and be raised to royal rank!”<sup>209</sup>

Under purview of the Wardens’ Service were also the Fire Guards, who played a vital role in the protection of the nation. The duty of a Fire Guard involved watching for the fall of incendiary bombs and alerting the neighborhood when and where such bombs fell.<sup>210</sup> Fire Guards were also asked to aid householders in extinguishing fires caused by incendiary bombs to prevent larger conflagrations that would require the fire brigade.<sup>211</sup> Fire Guards operated in stirrup pump teams, usually consisting of three people, with one stirrup pump team for approximately every 150 yards or every 30 houses.<sup>212</sup> Businesses and factories were required to maintain their own Fire Guard organizations.<sup>213</sup> To avoid significant interference with nightly rest, Fire Guards only patrolled during an air raid alert and the Guard on watch duty could remain indoors while the other team members slept until their turn for watch duties.<sup>214</sup> The recognized signal for the fall of fire bombs in a neighborhood was a series of short blasts of a whistle, given either by police, warden, or fire guard, to alert the stirrup pump duty teams into action.<sup>215</sup> Fire Guards not on duty when the whistle sounded were still required to dress and to turn out to assist the duty

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<sup>208</sup> TNA: HO 186/488, Letter to Sir George Gater, February 24, 1941, 1; TNA: HO 186/488, North Midland Regional Office to Herbert Morrison, March 3, 1941; TNA: HO 186/488, South Western Regional Office to Oswald Allen, March 6, 1941, 1; “Arm A.R.P. Wardens,” *Stirling Observer*, October 16, 1941.

<sup>209</sup> TNA: HO 186/488, Letter to the Secretary, February 26, 1941.

<sup>210</sup> Ministry of Home Security, *Air Raid Precautions Handbook No. 14, The Fire Guards Handbook* (London: HMSO, 1942), Introduction.

<sup>211</sup> *ibid.*

<sup>212</sup> *ibid.*, 2.

<sup>213</sup> *ibid.*, 1.

<sup>214</sup> *ibid.*, 3.

team.<sup>216</sup> The training of Fire Guards was done in three stages, starting with basic instructions on operating stirrup pumps, putting out incendiary bombs, and how to operate in teams of three, followed by practical training with practice incendiary bombs and lastly tactical training, sometimes involving local exercises.<sup>217</sup> By 1944, the call on men for the armed forces had in some areas so reduced the availability of civil defense volunteers that women were taking on more and more fire guard duties.<sup>218</sup> Women operated as fire guards in street parties, as business and factory fire guards, as well as at government premises.<sup>219</sup>

### **The Auxiliary Fire Service**

The MHS was aware well before the start of war that perhaps the biggest danger from enemy air raids would be fire. While existing fire brigades would be capable of fighting fires started by regular or incendiary bombs, especially in concentrated urban areas under heavy attack the existing fire service was not large enough to deal with every fire that might be started. A large component of civilian ARP education consisted of dealing with incendiary bombs to avoid the fire brigade from being overtaxed. The AFS was formed as a support to and supplement of existing fire brigades across the civil defense regions. A job that often took its volunteers into dangerous situations, service in the AFS was the most recognized and respected of the various civil defense jobs.

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<sup>215</sup> *ibid*, 5.

<sup>216</sup> *ibid*.

<sup>217</sup> *ibid*, 6-7.

<sup>218</sup> TNA: HO 186/2451, *Review of Fire Guards*, October 12, 1944, 1.

<sup>219</sup> *ibid*.

The duties of AFS volunteers were quite similar to those of the regular fire brigade. The majority of AFS volunteers were needed to fight fires. Members of an AFS brigade would go with their pumps to the scene of a fire, often working in cooperation with the regular fire brigade for serious outbreaks, but were asked to handle smaller fires without the aid of professionals.<sup>220</sup> Some volunteers would work in emergency water units, tasked with bringing water up from lakes, rivers, canals, and other sources to ensure a sufficient supply.<sup>221</sup> Those unable to meet the heavy physical demands of such work could still join the AFS, manning watch rooms at fire stations or driving the trailer pumps.<sup>222</sup> Youths were asked to enroll as messengers to ensure continued communication even if the telephone network stopped working.<sup>223</sup> Women were particularly encouraged to volunteer for the “essential if not exciting” jobs of watch room work or record keeping, which they would be able to do “as well as men, perhaps better.”<sup>224</sup> While women did enroll in the AFS, things did not always go smoothly. In 1938, Lady Reading, Chair of the WVS, complained to Sir Thomas Gardiner that the way women were being treated in the London Fire Brigade was “most unsatisfactory,” and that many were resigning because of the poor conditions under which women were being trained and the unsatisfactory allocation of responsibility assigned to female officers.<sup>225</sup>

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<sup>220</sup> LMA: CL/CD/1/275, *Note for recruiting speech to be made by Mr. John Wilmot at a recruiting meeting to be held at the Mansion House, May 1939*, 1.

<sup>221</sup> *ibid.*, 2.

<sup>222</sup> *ibid.*

<sup>223</sup> *ibid.*

<sup>224</sup> *ibid.*

<sup>225</sup> TNA: HO 186/569, Lady Reading, *Memorandum of Meeting with Sir Thomas Gardiner*, November 29, 1938, 8.

The training of auxiliary firemen focused most heavily on fighting fires, but included other ARP aspects, as well. Training varied between the various jobs of the AFS, with as many as sixty hours required for the full fire fighter, while other tasks required as few as thirty hours of training.<sup>226</sup> The latter stages of AFS training were also supposed to provide practical experience of fighting fires to the new auxiliary firemen, but the large number of AFS volunteers and the relatively small number of fires prior to September 1940 often meant that any peace-time fire saw an unnecessary number of firemen responding.<sup>227</sup> Thus, when the London Blitz began, four-fifths of London's auxiliary firemen had never seen a fire.<sup>228</sup> Anti-gas training was also an important component of training for auxiliary firefighters and all volunteers undertook the full anti-gas course.<sup>229</sup> Even the AFS messengers received some anti-gas training.<sup>230</sup>

Recruiting for the AFS was often easier than for other civil defense services, but more stringent requirements meant enrollment numbers did not meet needs. Men between 30-50 were sought for the AFS, although those over 50 could enroll if they were capable of doing the physical work.<sup>231</sup> Additionally, the AFS restricted its volunteer pool by requiring all enrollees to be natural-born or naturalized British citizens.<sup>232</sup> In 1938 the estimated number of volunteers required for the London AFS alone was 30,000; women

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<sup>226</sup> LMA: CL/CD/1/275, *Note for recruiting speech to be made by Mr. John Wilmot at a recruiting meeting to be held at the Mansion House, May 1939*, 2.

<sup>227</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 25.

<sup>228</sup> *ibid.*

<sup>229</sup> TNA: HO 45/18147, *Air Raid Precautions Memorandum No. 5, 3rd Edition*, May 1939, 37.

<sup>230</sup> LMA: CL/CD/1/275, *Note for recruiting speech to be made by Mr. John Wilmot at a recruiting meeting to be held at the Mansion House, May 1939*, 2.

<sup>231</sup> *ibid.*, 5.

<sup>232</sup> *ibid.*

could make up 5,000 of those needed.<sup>233</sup> Over 1,000 AFS recruitment posters were displayed at London Underground stations.<sup>234</sup> The London Fire Brigade also sought to increase recruitment through exhibiting posters on the sides of buses and trams, as well as hoping to show in cinemas a five minute “talkie” about the AFS.<sup>235</sup> An advertising official, however, felt the AFS posters lacked the necessary appeal, emphasizing the need for exaggeration.<sup>236</sup> Another advertising agent thought a cartoon film was most likely to be shown by cinema proprietors and absorbed by the public, but that the serious subject of the AFS could not be treated in such a form.<sup>237</sup> Exhibitions often served as a useful publicity and recruiting tool. At an ARP exhibition in London it was suggested to showcase working fire appliances and for the AFS to periodically exhibit how to fight incendiary bombs.<sup>238</sup> Another suggestion involved stationing a fire engine with its complete equipment in Trafalgar Square for a week to act as a “propaganda and recruiting depot.”<sup>239</sup> The LCC also agreed to hang streamers across the road outside of each London fire station with slogans such as “Enrol here for the A.F.S.” to supplement the poster and newspaper recruitment campaigns.<sup>240</sup> One type of AFS advertisement had been intended to scare people into volunteering, but this was quickly shut down by the LCC, who agreed that the scare appeal held many advantages, but would have to depict a state of

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<sup>233</sup> LMA: CL/CD/1/274, *Minute of Interview between The London Press Exchange and the London County Council, A.R.P. Service*, September 6, 1938, 2.

<sup>234</sup> LMA: CL/CD/1/275, *AFS Recruiting, London Underground Poster Campaign*, n.d.

<sup>235</sup> LMA: CL/CD/1/274, *AFS Publicity, Note of Interview at County Hall*, August 5, 1938, 1.

<sup>236</sup> *ibid.*

<sup>237</sup> LMA: CL/CD/1/274, *AFS Publicity, Note of Interview at County Hall*, August 8, 1938, 2.

<sup>238</sup> LMA: CL/CD/1/275, *Jubilee Exhibition - A.R.P. exhibit*, February 1, 1939.

<sup>239</sup> LMA: CL/CD/1/274, *Minute of Interview between the London Press Exchange and the London County Council, A.R.P. Service*, September 16, 1938, 2.

<sup>240</sup> LMA: CL/CD/1/274, London County Council, *Air Raid Precautions—Publicity*, September, 1938, 1.

affairs so dire as to possibly be unfavorable to recruiting.<sup>241</sup> To address a lag in recruitment, the London Fire Brigade considered asking for time on the BBC to have an AFS volunteer “put over his own story in a comradely style” to provide a more personal pull to recruitment that was lacking in national service campaigns.<sup>242</sup> By mid-1939, 22,000 volunteers had enrolled in the London AFS, but at least 40,000 were required as the bare minimum.<sup>243</sup> 5,000 youths between 14-18 years of age were needed as messengers for the London AFS.<sup>244</sup> Particularly early on, with the AFS still in its infancy, some recruits may have been reluctant to join because of rumors of inefficient equipment and uniforms, as well as sub-par AFS posts.<sup>245</sup>

Incentives were thought to improve recruiting. Service in the AFS was often portrayed as adventurous and interesting to encourage recruits. In a recruitment broadcast, the training of the AFS was referred to as “varied and interesting.”<sup>246</sup> Volunteering for the AFS was the closest an amateur could come to doing a professional fireman’s job.<sup>247</sup> Another mentioned incentive was that in peacetime, once volunteers had passed training, they were also allowed to ride out to fires with the regular fire brigade.<sup>248</sup> While men volunteering as a whole-time firefighters could receive the regular civil defense pay, those who undertook positions of greater responsibility, such as Company

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<sup>241</sup> LMA: CL/CD/1/274, *Minute of Interview between The London Press Exchange and The London County Council*, September 21, 1938, 1.

<sup>242</sup> LMA: CL/CD/1/275, Letter to C.H. Salmon, April 13, 1939.

<sup>243</sup> LMA: CL/CD/1/275, *Note for recruiting speech to be made by Mr. John Wilmot at a recruiting meeting to be held at the Mansion House*, May 1939, 1.

<sup>244</sup> *ibid*, 2.

<sup>245</sup> LMA: CL/CD/1/275, London County Council, *Broadcast by Mr. Herbert Morrison*, June 21, 1939, 2.

<sup>246</sup> *ibid*, 1.

<sup>247</sup> *ibid*.

<sup>248</sup> *ibid*.

Officers, Group Commanders, and Deputy Commandants, could earn between £4 to £8 a week.<sup>249</sup>

The work of the AFS was particularly vital to the nation. Incendiary bombs presented a special danger to lives and homes and an efficient system of dealing with fires was required. Civilians were urged to enroll in the AFS to ensure the prompt extinguishing of fires and the safety of their homes and families.<sup>250</sup> Incendiary attacks produced conflagrations unimaginable in peacetime—the first night of the Blitz in London produced nine fires that each alone required three to ten times as many pumps and men as a peacetime “big” fire.<sup>251</sup> During the first 22 nights of the Blitz, the London Fire Brigade, their auxiliaries, and reinforcements attended nearly 10,000 fires.<sup>252</sup> The raids of December 29<sup>th</sup> caused over 1,500 fires in the City of London, conflagrations so intense great clouds of smoke seemed to overwhelm the entire city, and one observer thought it impossible “that the City, that London, could be saved.” Only through the unrelenting efforts of the AFS was St. Paul’s Cathedral, and the city, saved from the flames.<sup>253</sup>

Volunteers of the AFS regularly exposed themselves to great danger to save lives and property. Incendiary bombs falling on arsenals or railcars sometimes saw volunteers fighting fires among boxes of live ammunition and crates of nitro-glycerine, while bombs

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<sup>249</sup> LMA: CL/CD/247, Clerk of the Council, *LAFS and LAAS - Rates of Pay*, February 2, 1940.

<sup>250</sup> LMA: CL/CD/1/275, *Volunteers Wanted for the Auxiliary Fire Service*, n.d.

<sup>251</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 25.

<sup>252</sup> *ibid*, 30.

<sup>253</sup> *ibid*, 32-33.

continued to rain down around them.<sup>254</sup> At the docks, pepper fires made breathing unbearable, while rum fires blasted firemen with burning liquid. Paint and rubber fires exposed the men to toxic fumes and black smoke, coating equipment and uniforms in varnish and soot.<sup>255</sup>

### **The Casualty Services**

While the Home Office had heavily invested in teaching civilians how to protect themselves from air raids through education campaigns and the Wardens' Service, as well as providing shelter and other protective measures, it was inevitable that air raids on the nation would cause casualties. The several thousand casualties from zeppelin raids in the previous war in London alone made clear that if heavy raids were to occur the numbers of civilian casualties would quickly overwhelm existing systems of first aid, ambulance, and hospitals. What was required was a system similar to that of the AFS, a supplemental service to boost existing first aid structures and ensure civilian casualties of war were treated quickly and appropriately. The casualty services were comprised of the First Aid Post (FAP), ambulance service, and stretcher parties (called first aid parties in some areas). Volunteers of the casualty services often found themselves at the frontline of the aftermath of an air raid, rushing into sometimes dangerous situations to provide treatment and transportation for injured civilians.

The services worked together to provide swift and competent care for air raid casualties. Ambulance drivers manned auxiliary ambulance stations and would drive out

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<sup>254</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 25; "G.M.'s for Air Raid Heroes," *Liverpool Echo*, August 2, 1941; "Three Yorkshire Heroes," *Yorkshire Post and Leeds Intelligencer*, April 5, 1941.

<sup>255</sup> *ibid*, 26.



to wherever casualties were reported to take them to hospitals or FAPs.<sup>256</sup> The ambulance staff consisted of one driver and one attendant, manning either a stretcher-carrying ambulance or “sitting case” cars that could carry minor casualties to FAPs.<sup>257</sup> The members of the stretcher parties were the first line of casualty treatment and their decisions, made swiftly and often under the dangers of an air raid, could decide whether someone lived or died. Stretcher parties diagnosed casualties and decided on the need for priority in treatment, decided on and applied first aid treatment, and decided whether a casualty needed to be sent to a hospital, FAP, or whether no further treatment was required.<sup>258</sup> Each stretcher party consisted of four persons, one of whom acted as a leader, along with a driver and a car, used to carry the party to the scene of the incident and carry the first aid equipment and stretchers.<sup>259</sup>

The first aid posts were specifically intended to divert non-serious casualties away from hospitals. They were set up to cover convenient areas and were staffed by a doctor, a nurse, and a number of nursing auxiliaries.<sup>260</sup> The FAPs were intended to treat non-major and non-operative injuries, generally providing preliminary first aid treatment, such as administering anti-tetanus serum or morphine.<sup>261</sup> While some beds existed in each FAP, it was imperative that they not be filled up with casualties requiring bedrest so that a steady stream of casualties could pass through the post.<sup>262</sup> In rural or less densely

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<sup>256</sup> LMA: CL/CD/1/275, *Note for recruiting speech to be made by Mr. John Wilmot at a recruiting meeting to be held at the Mansion House*, May 1939, 4.

<sup>257</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 21.

<sup>258</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 38.

<sup>259</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 20.

<sup>260</sup> *ibid.*

<sup>261</sup> *ibid.*

<sup>262</sup> *ibid.*

populated areas a First Aid Point was established, usually comprising a room set aside with a limited amount of first aid equipment that could treat minor injuries and served as a collection point for casualties requiring a FAP or hospital.<sup>263</sup> In some urban areas First Aid Points were also set up by wardens or householders, usually at houses with a person qualified to render first aid.<sup>264</sup>

Training varied between the first aid services, with the FAP attendants and stretcher parties most heavily trained in first aid measures. All personnel at FAPs, including those employed in cleansing duties, were required to complete the full First Aid Course of 18 hours of instruction.<sup>265</sup> The full course was also mandatory for all members of first aid parties and ambulance attendants.<sup>266</sup> Select members of the stretcher parties, usually the leader, also took an 18-hour special first aid course that focused more intensely on wartime first aid, including lessons on casualty aggregation in air attacks, air raid first aid procedures, casualty transportation, types of air raid injuries, faking injuries, and collaboration with rescue parties.<sup>267</sup> By 1942 first aid parties were also being trained in some elements of rescue work since trapped casualties often took some time to extricate and the workload of the Rescue Service was sometimes exceptionally heavy.<sup>268</sup> In some areas, such as London, first aid parties were subsequently being converted to Light Rescue Parties.<sup>269</sup> Ambulance drivers, and domestic staffs at FAPs, completed the six

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<sup>263</sup> *ibid.*

<sup>264</sup> *ibid.*

<sup>265</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 26.

<sup>266</sup> *ibid.*

<sup>267</sup> *ibid.*, 58.

<sup>268</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 20.

<sup>269</sup> *ibid.*

hour short course on first aid.<sup>270</sup> For ambulance drivers the primary skill needed was driving a motor vehicle. Initial training for drivers consisted of learning to handle heavy vehicles and, particularly in London, learning the topography and quickest routes within their duty areas.<sup>271</sup> Additionally, ambulance drivers had to learn how to drive ambulances at night without lights, due to blackout restrictions.<sup>272</sup> The average woman could become efficient in these skills after about nine lessons.<sup>273</sup> Training for drivers also included map reading, and the general maintenance and cleaning of vehicles to ensure they were always in working condition.<sup>274</sup>

All three services received extensive anti-gas training. Drivers took the full, nine-hour anti-gas course.<sup>275</sup> Ambulance attendants, first aid party members, and volunteers at the FAP were required to complete the Anti-gas Full and Voluntary Aid Course, because these volunteers, in particular, would comprise the frontline in the treatment of gas casualties.<sup>276</sup> Anti-gas training also involved practicing one's duties in anti-gas clothing. Ambulance drivers practiced driving by day and night while wearing respirators and full anti-gas clothing.<sup>277</sup>

Volunteers for the casualty services often required specific skills or physical abilities and thus recruitment could be difficult. Stretcher party recruitment

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<sup>270</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 58.

<sup>271</sup> LMA: CL/CD/1/275, *Note for recruiting speech to be made by Mr. John Wilmot at a recruiting meeting to be held at the Mansion House, May 1939*, 4.

<sup>272</sup> *ibid.*

<sup>273</sup> *ibid.*

<sup>274</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 31.

<sup>275</sup> *ibid.*, 9.

<sup>276</sup> *ibid.*, 8-10.

advertisements called for men willing to go out into the street “under conditions of danger” to bring casualties to safety and described it as a job requiring “nerve and courage.”<sup>277</sup> The physical nature of the first aid parties’ duty also required that younger men be able to volunteer and full-time members were reserved from liability to military service at the age of 30 in the provinces and 35 in the London region.<sup>279</sup> While by 1942 women were allowed to join first aid parties, other than drivers their numbers were quite low and only women of “suitable physique” were enrolled.<sup>280</sup> Recruitment adverts for FAPs pointed out that women have “always borne the main burden of caring for the sick and wounded,” and asked women between 18-55 to train as nursing auxiliaries.<sup>281</sup> For women ambulance drivers their “ability to drive [was] an asset to the nation,” and women were urged to offer their services as drivers whether or not they owned cars.<sup>282</sup> Women were especially recruited for this service because there were already “so many other calls on the male citizen.”<sup>283</sup> Women between 18-50 were the primary recruitment targets, although anyone older was eligible to enroll if they could prove physically capable of carrying out the work.<sup>284</sup> A First Aid Certificate enabled a volunteer to work as a First Aid Helper at FAPs, but untrained volunteers could still be employed as First Aid

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<sup>277</sup> *ibid*, 31.

<sup>278</sup> LMA: CL/CD/1/275, ARP Recruitment Poster, *Choose Your Duty Now*, n.d.

<sup>279</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 16.

<sup>280</sup> *ibid*, 20.

<sup>281</sup> *ibid*.

<sup>282</sup> *ibid*.

<sup>283</sup> LMA: CL/CD/1/275, *Note for recruiting speech to be made by Mr. John Wilmot at a recruiting meeting to be held at the Mansion House, May 1939*, 4.

<sup>284</sup> *ibid*, 5.

Assistants.<sup>285</sup> The London Ambulance Service specifically sought to target places women would frequent for recruitment advertising. Recruiting posters were exhibited in large department stores' female lavatories, beauty parlors, and hair dressing salons.<sup>286</sup> Another suggestion called for a recruiting depot set up on the premises of Harrods department store, if possible with an actual ambulance on show at the store.<sup>287</sup> It was also suggested that by approaching all local women's hairdressers to request that they display recruitment posters, the ambulance service could be sure of "getting practically every woman motor driver within a month."<sup>288</sup> Under consideration was also the targeting of matinee performances at theaters and cinemas to specifically reach women and one official lamented that a great idea would have been to have current ambulance drivers picket the West End theaters "if only they had uniforms!"<sup>289</sup> In London a recruiting leaflet was also sent out with the renewal of every woman's driver's license.<sup>290</sup> One official suggested that instead of spending money on press advertisements actually opening ambulance stations in a few districts would attract more volunteers.<sup>291</sup>

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<sup>285</sup> TNA: HO 186/108, *Women's Voluntary Services for Civil Defence Speaker's Notes*, Appendix IX, January, 1939, 1.

<sup>286</sup> LMA: CL/CD/1/275, *London Volunteer Ambulance Service - Publicity*, n.d.

<sup>287</sup> LMA: CL/CD/1/274, *Minute of Interview between The London Press Exchange and the London County Council, A.R.P. Service*, September 16, 1938, 5.

<sup>288</sup> LMA: CL/CD/1/275, *London Volunteer Ambulance Service - Publicity*, n.d.

<sup>289</sup> *ibid.*

<sup>290</sup> LMA: CL/CD/1/275, *Campaign for London Drivers Suggested by Women's Voluntary Services for Civil Defence*, April 1939, 1.

<sup>291</sup> LMA: CL/CD/1/275, *Deputy Clerk, A.R.P. Recruitment Publicity*, January 30, 1939, 2.

The London region also sought to gain publicity for civil defense through an exhibition where female ambulance drivers were present to exhibit their uniforms and training.<sup>292</sup> Nonetheless, as of February 1939, the London Ambulance Service alone was still short 17,000 drivers and attendants.<sup>293</sup>

### **The Rescue and Demolition Service**

The destruction that air raids would wreak on urban infrastructure was a major concern, both in terms of property damage as well as the danger to life and limb. Debris on roadways could make streets impassable for ambulances or civilians trying to reach first aid posts, while unsafe structures damaged by bombs could present hazards even after a raid. Most important, however, was the need to rescue casualties trapped under rubble and debris after raids. The Rescue and Demolition Service was formed specifically to remove, demolish, or secure debris, rubble, and unsafe structures that presented hazards to civilians and civil defense services after a raid. The service's primary mission was to reach civilians trapped in the ruins of their homes or shelters. Volunteers in rescue parties provided vital services that directly saved lives and enabled the other civil defense services to complete their own missions.

The training and organization of the Rescue and Demolition Service was important to ensure the effective carrying out of their work. While initially the service had been divided into Light and Heavy Rescue parties, by 1942 this distinction had been

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<sup>292</sup> LMA: CL/CD/1/275, *Jubilee Exhibition - A.R.P. Exhibition*, February 2, 1939.

<sup>293</sup> LMA: CL/CD/1/275, *Minute of Interview between The London Press Exchange and the London County Council, A.R.P. Service*, February 7, 1939, 1.

abolished.<sup>294</sup> Each rescue party consisted of ten men and a driver, although this number was sometimes reduced to eight in some areas.<sup>295</sup> Wardens or police reported incidents to the borough control center, from where the officer-in-charge of the rescue service would send out rescue parties depending on the information received.<sup>296</sup> The leader or foreman of the first party to arrive at the scene would take charge, deciding on the method to be adopted and the scale of effort put into the work.<sup>297</sup> Incidents of material importance would also see a clerk of works sent out to assess the scene, to ensure the work was being done correctly, and to keep progress under review.<sup>298</sup> Upon arrival at an incident, the party leader would decide if another party was required or special equipment needed.<sup>299</sup> If a fire had broken out and could not be contained with a stirrup pump, the fire brigade was also summoned.<sup>300</sup> The rescue party also inspected gas and water mains, as well as electricity cables, to determine if workmen needed to be sent out to shut them off (although a training manual suggested controlling gas leaks by ramming lumps of clay into the gas main).<sup>301</sup> Before any rescue could commence the party leader also needed to inspect the site and determine whether demolition or shoring was required, and then organize volunteers to move debris, sending for men from nearby shelters if necessary.<sup>302</sup>

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<sup>294</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 21.

<sup>295</sup> *ibid.*

<sup>296</sup> TNA: HO 186/441, Lewis Silkin, *Civil Defence—Rescue Service, Report of an investigation*, October 16, 1940, 1.

<sup>297</sup> *ibid.*

<sup>298</sup> *ibid.*

<sup>299</sup> LMA: CL/CD/3/118, *A.R.P. Rescue Training*, November, 1940, 4.

<sup>300</sup> *ibid.*

<sup>301</sup> *ibid.*

<sup>302</sup> *ibid.*

Volunteers of the Rescue Service were trained primarily in aspects of casualty rescue. Rescue party members completed the basic training of all civil defense services, as well as the short course on first aid, because they usually were the first to reach trapped casualties and could thus provide a modicum of care before the arrival of first aid parties.<sup>303</sup> First Aid Parties were generally not sent into unsafe structures and thus it was imperative that members of the rescue party could render basic first aid before casualties were extricated.<sup>304</sup> Of special importance was that rescue party members knew how to recognize and deal with shock, as well as how to move casualties gently to prevent further injury and shock.<sup>305</sup> Specialized training for rescue workers also included lessons on building construction, safety measures, shoring, ropes and knots, lifting heavy weights, cutting with an acetylene torch, scaffolding, demolition, damage to public utility mains, and the rescue of casualties.<sup>306</sup> It was also necessary to adapt training for both services to local conditions, as each locality had its own special type of building construction, and in some areas multi-storied buildings were more common.<sup>307</sup>

Members of the Rescue and Demolition Service were trained in anti-gas measures. Rescue party members would still be required to rescue casualties in the event of a gas attack and thus would be likely to come into contact with contaminated people and work in a contaminated environment. Rescuers completed the full anti-gas course, which

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<sup>303</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 11.

<sup>304</sup> LMA: CL/CD/3/118, *A.R.P. Rescue Training*, November, 1940, 3.

<sup>305</sup> *ibid.*

<sup>306</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 59-61.

<sup>307</sup> *ibid.*, 30.



taught the use of protective clothing and in-depth anti-gas measures.<sup>308</sup> Prior to beginning any rescue at an incident site party leaders needed to test for poison gas. If wardens had not reported gas initially, the rescue party would arrive at the incident in overalls, with their protective clothing along in a box.<sup>309</sup> If a war gas was recognized on site, the rescue party would immediately don respirators before proceeding. In the case of a persistent agent, such as mustard gas, the party would withdraw to an uncontaminated district, dress in their anti-gas clothing, and seal their regular clothes in a box with adhesive tape.<sup>310</sup> Work in anti-gas clothing would have made an already physically demanding job almost unbearably taxing, official instructions describing work in anti-gas suits as “very exhausting.”<sup>311</sup>

These jobs involved some of the hardest physical labor in the civil defense system. In one MHS publication rescue work was described as “the heaviest and most dangerous work of all the [civil defense] services.”<sup>312</sup> While the service’s purpose was not the wide scale shoring up of debris or demolition, rescue party members nevertheless performed difficult work in destroyed structures to ensure civilian safety and rescue.<sup>313</sup> The work of the rescue services involved three primary operations. The first operation was the moving of debris, using picks, shovels, crowbars, and barrows.<sup>314</sup> The second operation was the

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<sup>308</sup> *ibid*, 11, 52-53.

<sup>309</sup> LMA: CL/CD/3/118, *A.R.P. Rescue Training*, November, 1940, 4.

<sup>310</sup> *ibid*.

<sup>311</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 44.

<sup>312</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 22.

<sup>313</sup> LMA: CL/CD/3/118, *A.R.P. Rescue Training*, November, 1940, 3.

<sup>314</sup> *ibid*.

lifting of heavy weights, for which members used jacks, levers, and lifts.<sup>315</sup> The Rescue Service also worked to shore up walls and floors and carried out any demolition work necessary to safeguard the public and to carry out further rescue work.<sup>316</sup> Rescue parties were usually the first to reach trapped casualties and one training manual warned that rescuers be prepared to encounter “horrible and revolting injuries” and to steel their nerves against this sight so their efficiency in rescue would not be impaired.<sup>317</sup> Rescue work also involved the unpleasant task of extricating dead bodies, although volunteers were instructed to treat all casualties as gently as possible in case victims were still alive.<sup>318</sup> Where possible the rescue service employed dogs trained to find casualties, although numbers were so limited that the entire London region only had two pairs of Alsatians for the purpose.<sup>319</sup> A third task sometimes undertaken by rescue parties was the recovery of essential foodstuffs. This was only undertaken after the rescue of all casualties, under guidance from the Local Food Officer, usually a few days after an air raid.<sup>320</sup>

Only specific types of civilians could volunteer for the Rescue or Demolition Service. The heavy physical demands on rescue workers meant only men were eligible to enroll in the service and men of good physique and stamina at that.<sup>321</sup> Prior to the experience of actual air raids, the theory had been that men from the building trade would

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<sup>315</sup> *ibid.*

<sup>316</sup> *ibid.*

<sup>317</sup> *ibid.*

<sup>318</sup> *ibid.*

<sup>319</sup> TNA: HO 186/2204, *Dogs Employed in Rescue Work*; Ministry of Home Security, *Civil Defence Training Bulletin No. 13* (London: HMSO, 1945), 5.

<sup>320</sup> LMA: CL/CD/3/118, *A.R.P. Rescue Training*, November, 1940, 3.

<sup>321</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 22.

be best suited for rescue work and the initial composition of each rescue team consisted of one foreman, four skilled and five unskilled men.<sup>322</sup> To draw skilled labor to the rescue and demolition service, the Home Office set a rate of pay above that normally approved for full-time civil defense volunteers: £3 17s. a week for skilled men and £4 5s. a week for foremen.<sup>323</sup> Unskilled, regular volunteers received the same pay as other civil defense volunteers.<sup>324</sup> By 1942, however, practice had shown that rescue work required a technique all of its own and volunteers could be quite well trained from the start without prior knowledge of construction.<sup>325</sup> Like the first aid parties, men over 30 who volunteered full-time with the Rescue Service were not liable for military service to ensure a sufficient number of physically fit men could enroll.<sup>326</sup>

Public perception of the rescue and demolition services was not always positive. After several months of air raids, the North Midland Region found that heavy raids could mean that it took as long as two weeks for dead bodies to be recovered from the wreckage of their homes and that this created a doubt in the mind of the public that people may have been saved if they had been extricated in the first 24 hours.<sup>327</sup> To ensure that no person (whether dead or alive) be kept under wreckage beyond 24 hours it was proposed to enlist military assistance, as well as draw on rescue parties from across the region to concentrate on the most damaged areas.<sup>328</sup> In Weybridge, an official worried

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<sup>322</sup> *ibid.*

<sup>323</sup> LMA: CL/CD/247, Harold Scott to Eric Salmon, September 9, 1939.

<sup>324</sup> LMA: CL/CD/247, London County Council, *Rescue, Shoring, and Demolition Scheme*, September 12, 1939.

<sup>325</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 22.

<sup>326</sup> *ibid.*, 16.

<sup>327</sup> TNA: HO 186/441, North Midland Regional Office, *Rescue Party Organization*, December 9, 1940, 1.

<sup>328</sup> *ibid.*

that rescue parties were being dismissed before all reasonable doubt had been removed that there were bodies under the wreckage, citing an incident where a body was recovered after ten days delay.<sup>329</sup> Lack of speed in rescue work was a complaint common across the civil defense regions. Officials were concerned that rescue parties lacked proper technical supervision, that modern buildings were too large to be tackled by parties of ten men, and that sometimes equipment, such as cranes, were used by unskilled men.<sup>330</sup> In other parts of the country complaints suggested that rescue parties were not sufficiently numerous, that they were slow to extricate casualties, that they were unnecessarily destructive, and that they did work they were not supposed to do.<sup>331</sup> One woman rescued from the debris of her house complained to the *Daily Mail* that the rescue party was refusing to continue to work in order to free her trapped mother and sister, although the government report on the incident countered the claim, stating that two rescue parties had been working full-time at the incident.<sup>332</sup> Accusations of “lack of vigour” in the workers’ attitudes to their job was a particularly concerning complaint, because it could undermine public confidence in the service and thus negatively affect morale.<sup>333</sup> The number and types of complaints led to an official investigation into the Rescue Service, which found that the number of complaints in comparison with the number of incidents was relatively small and there was no reason to suspect a general defect with either the service or its volunteers.<sup>334</sup> The investigator also concluded that the conditions under which rescue

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<sup>329</sup> TNA: HO 186/441, Reading Regional Commissioner to W. Mabane, September 6, 1940, 1.

<sup>330</sup> TNA: HO 186/441, Letter to Inspector General, December 23, 1940, 1.

<sup>331</sup> TNA: HO 186/441, Letter to the Secretary, October 24, 1940, 1.

<sup>332</sup> TNA: HO 186/441, 32 *Elgin Avenue, Maida Vale*, October 7, 1940.

<sup>333</sup> TNA: HO 186/441, Lewis Silkin, *Civil Defence—Rescue Service, Report of an investigation*, October 16, 1940, 1.

<sup>334</sup> *ibid.*

parties worked was particularly apt to cause misapprehension in the uninformed onlooker, especially when his judgment and susceptibilities were affected by personal grief.<sup>335</sup> Additionally, the nature of rescue work did not always allow all ten members of a party to work simultaneously, so to avoid men standing around idly, which could be perceived negatively, the report suggested dividing parties into teams of three, with one skilled and two unskilled men each, who could then work three different points simultaneously.<sup>336</sup>

### **The Gas Services**

While all of the civil defense services were trained to deal with poison gas as part of their jobs, there was also a need to provide personnel specifically intended to deal only with a gas attack. A major concern was how to decontaminate civilians who had fallen victim to a gas attack and, as a result, cleansing centers were created. To decontaminate roads and buildings it was necessary to create a Decontamination Service. While wardens received some training in recognizing types of gas, if a gas attack occurred a special person trained in the recognition of gas would be necessary. The Gas Identification Officer (GIO) would be responsible for testing gassed areas and making recommendations as to further precautions and treatment. Regional Gas Advisers would oversee the network of GIOs and liaise with the Home Office on issues of chemical agent identification and protection.

The duties of both the GIO and the Decontamination Service only began with a gas attack. The very first use of gas by the enemy would require collaboration between the

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<sup>335</sup> *ibid.*

<sup>336</sup> TNA: HO 186/441, Lewis Silkin, *Investigation, Second Report*, October 24, 1940, 2.

Gas Identification Service and the MHS because “utmost care is necessary before an accusation of the use of gas is made.”<sup>337</sup> The GIO would report the first use of gas, along with the region’s Senior Gas Adviser, to the MHS, where scientific and military advisers would carefully examine the evidence, before reporting the use of gas to the government.<sup>338</sup> Thereafter, any use of gas would be reported by wardens or police patrolling their districts and the control center would subsequently send the GIO, and a decontamination squad if necessary, to the scene.<sup>339</sup> The decontamination squad, each consisting of seven men, would be sent to deal with the liquid decontamination of streets and buildings, arriving in a lorry that also carried their equipment and supplies.<sup>340</sup> Using bleaching powder and wearing full oilskin anti-gas suits with respirators the decontamination squads would work during daytime to decontaminate gassed areas.<sup>341</sup> If the GIO discovered that food had become contaminated with gas he would summon the Gas Contamination Officer of the Ministry of Food, who would assess the situation and, if necessary, call out the Food Treatment Squads, specially trained to deal with the decontamination of foodstuffs.<sup>342</sup>

Contaminated civilians would be directed to wash their skin immediately at one of several options. Public Gas Cleansing Centers (GCC) fell under the purview of the First Aid Post Service, with the centers either directly attached or affiliated with specific

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<sup>337</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 22.

<sup>338</sup> *ibid.*

<sup>339</sup> *ibid.*

<sup>340</sup> *ibid.*

<sup>341</sup> *ibid.*

<sup>342</sup> *ibid.*

FAPs.<sup>343</sup> Staffs at the GCCs received training in the cleansing of contaminated persons in order to provide assistance to civilians, particularly as those who may have received other injuries during the raid would have been unable to wash themselves.<sup>344</sup> Civilians splashed with blister gas would make their way either to a street gas cleansing service, a private house available for decontamination, or a GCC, where they could remove their contaminated clothes and wash their skin.<sup>345</sup> Contaminated clothing would be decontaminated free of charge and GCCs stocked some emergency clothing to allow decontaminated persons to return home.<sup>346</sup> Laundry operatives engaged in the decontamination of clothing had to received special training to carry out the process.<sup>347</sup>

The training of both GIO and Decontamination Parties therefore heavily revolved around anti-gas measures, but also included other aspects of civil defense. Decontamination Squads completed the basic Individual Training First Stage, as well as second stage training that included incendiary bomb control and the short course on first aid.<sup>348</sup> The 13-hour full anti-gas and decontamination course was also required. GIOs underwent the same training as Decontamination Squads.<sup>349</sup> GIOs also attended special courses given by members of chemistry departments at universities and colleges.<sup>350</sup>

Volunteers for both decontamination squads and the Gas Identification Service needed special qualifications. In general, the men and women of the Gas Identification

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<sup>343</sup> *ibid*, 21.

<sup>344</sup> *ibid*.

<sup>345</sup> *ibid*.

<sup>346</sup> *ibid*.

<sup>347</sup> *ibid*, 22.

<sup>348</sup> Ministry of Home Security, *Air Raid Precautions Training Manual No. 2, Manual for Officers Responsible for ARP Training* (London: HMSO, 1940), 9.

<sup>349</sup> *ibid*, 10.

Service already had some training in chemistry prior to volunteering as GIOs and their scientific experience would allow them to properly advise the other services about poison gas.<sup>351</sup> The heavy work of the Decontamination Service and the physical strain of working in anti-gas clothing required men of good physique and stamina and only men had been enrolled for this service by 1942.<sup>352</sup> Manpower difficulties, however, made the MHS consider enrolling a limited number of suitable women, particularly after trials showed that women could carry out ordinary decontamination in streets, as long as no shifting of debris was involved.<sup>353</sup>

### **One Million Women - The Women's Voluntary Services for Civil Defence**

One of the largest and usually untapped sources of labor in the nation were women. In WWI women had proven their capabilities in the workforce and prior to the start of WWII it was expected that women again would rise to the occasion to work in factories and offer their time for civil defense. Several of the other civil defense services recruited female volunteers, but a major component of civil defense was staffed entirely by women—the Women's Voluntary Services (WVS). This service offered women the opportunity to volunteer their time to assist fellow citizens in their time of need through a variety of jobs. The WVS was a vital service without which many aspects of the government's civil defense scheme would have been unsuccessful. With its volunteers engaged in all aspects of civil defense and its mission often revolving around the welfare of British civilians, the WVS's image was one of hard work, enthusiasm, and devotion to

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<sup>350</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 33.

<sup>351</sup> *ibid.*, 22.

<sup>352</sup> *ibid.*



duty: “No job is too strenuous, too dangerous, too dirty or too small — if it must be done , the W.V.S. will do it.”<sup>354</sup>

The WVS came into being prior to the outbreak of war. The service was formed in May 1938 in response to a request by the then-Home Secretary, Sir Samuel Hoare, for the help of women for the task of enrolling ARP volunteers and for the education of women in ARP measures for themselves and their families.<sup>355</sup> The Home Secretary wanted such a service specifically because women were not engaged enough in ARP, because women’s organizations would be better able to reach other women, to make women aware that they could play a part in national defense, and because through energizing women for civil defense men, householders, and local authorities could be stimulated to do so, as well.<sup>356</sup> Subsequently the WVS was also tasked with recruiting women for the various hospital services and to aid with evacuation. Although initially titled “Women’s Voluntary Services for Air Raid Precautions” by the end of 1938 the service had taken on such a variety of tasks that its founder and leader Stella Isaacs, the Dowager Marchioness of Reading, asked that the name be altered to “Women’s Voluntary Services for Civil Defence.”<sup>357</sup> By early 1939 the WVS was represented in over 80% of 175 scheme-making authorities in England and Wales.<sup>358</sup> The WVS, headquartered at Westminster, consisted of nine departments each responsible for various aspects of civil defense and

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<sup>353</sup> *ibid.*

<sup>354</sup> TNA: HO 186/2241, Ministry of Information, *One Million Women, A Picture Story of the tireless enthusiasm and great achievement of the Women’s Voluntary Services for Civil Defence*, n.d., 1.

<sup>355</sup> TNA: HO 186/569, Samuel Hoare to Lady Reading, May 20, 1938.

<sup>356</sup> TNA: HO 186/569, Lady Reading, *Memorandum of Meeting with Sir Thomas Gardiner*, November 29, 1938, 1.

<sup>357</sup> TNA: HO 186/569, Lady Reading to Sir Thomas Gardiner, November 29, 1938, 1.

<sup>358</sup> TNA: HO 186/569, *Women’s Voluntary Services Representation Among Schememaking Authorities*, 1939.

coordination with the government. A Technical Department dealt with all questions of ARP training, the Transport Department coordinated with the AFS and Ambulance Service, the Meetings Department supplied speakers for meetings, while other departments dealt with regional cooperation, evacuation, architecture, and publicity.<sup>359</sup>

The WVS offered more than one type of job to its many volunteers. Most women who enrolled with the WVS did not directly work with the service, but were parceled out to the other civil defense services in need. In London, for instance, the WVS enrolled several hundred drivers who were then sent on to the London Ambulance Service.<sup>360</sup> The WVS was actively involved in recruiting women for hospitals as emergency nursing assistants, casualty workers, hospital auxiliaries such as clerks, storekeepers, telephonists, ward maids, and surgical dressing makers.<sup>361</sup> Women recruited and trained by the WVS also worked across the civil defense services as telephonists, clerks, messengers, laundry maids, and drivers.<sup>362</sup> One of the WVS's largest tasks involved evacuation, particularly the education of householders of the plan, securing billets, collecting names and addresses, stimulating interest in the plan, and, in general, providing assistance to officers engaged in evacuation.<sup>363</sup> In receiving areas, WVS volunteers also offered health services, communal cooking, and home services to evacuees and those billeting them.<sup>364</sup>

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<sup>359</sup> TNA: HO 186/108, *Women's Voluntary Services for Civil Defence Speaker's Notes*, January, 1939, 8.

<sup>360</sup> LMA: CL/CD/1/275, *Campaign for London Drivers Suggested by Women's Voluntary Services for Civil Defence*, April 1939, 1.

<sup>361</sup> TNA: HO 186/569, Lady Reading, *Memorandum of Meeting with Sir Thomas Gardiner*, November 29, 1938, 4.

<sup>362</sup> *ibid.*, 5.

<sup>363</sup> *ibid.*, 6.

<sup>364</sup> *ibid.*

The outbreak of war further expanded the WVS's activities. Work parties made hospital supplies and clothing.<sup>365</sup> Canteen services supplied food and tea in public shelters, British restaurants, and rest centers.<sup>366</sup> Volunteers manned rest centers and other refuges for those bombed out of their homes, while others organized salvage collections on behalf of the Supply Department.<sup>367</sup> WVS volunteers staffed war-time nurseries for children under five who could not be evacuated on their own.<sup>368</sup> The WVS was also involved in the distribution of ration books, as well as ensuring that children received the free issue of nutritious fruit juices and cod liver oil.<sup>369</sup> The Architect Department of the WVS offered a panel of over fifty women architects and surveyors who were prepared to place their technical knowledge at the disposal of housewives, tenants, and others desirous of advice on structural problems in connection with the preparation of refuge rooms. This panel was solely intended for the assistance of those who could not afford to pay for expert advice, and specifically excluded large corporations or factories.<sup>370</sup> The work of the WVS also concerned troop welfare and volunteers knitted for troops, staffed service hostels where service members could enjoy a meal and bed, arranged sightseeing tours for allied troops, distributed books, and offered free food through mobile and

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<sup>365</sup> TNA: HO 186/569, *Women's Voluntary Services*, n.d., 2.

<sup>366</sup> TNA: HO 186/569, *Women's Voluntary Services*, n.d., 2; TNA: HO 186/2241, Ministry of Information, *One Million Women, A Picture Story of the tireless enthusiasm and great achievement of the Women's Voluntary Services for Civil Defence*, n.d., 1.

<sup>367</sup> *ibid.*

<sup>368</sup> TNA: MAF 102/12, Women's Voluntary Services, *Mid-Summer Bulletin*, July 1944, 6; LMA: EO/WAR/2/19, G.A.N. Lowndes to P.M. Middlemiss, November 12, 1941.

<sup>369</sup> TNA: HO 186/2241, Ministry of Information, *One Million Women, A Picture Story of the tireless enthusiasm and great achievement of the Women's Voluntary Services for Civil Defence*, n.d., 3.

<sup>370</sup> TNA: HO 186/108, Secretary of Architects' Panel, *Architects Panel*, n.d.

permanent WVS canteens.<sup>371</sup> By the end of the war, the WVS was aiding 20 government departments with both the civil defense and war efforts, including the MHS, the Ministry of Health, the Admiralty, the War Office, the Air Ministry, the Board of Education, the Ministry of Food, the Ministry of Information, and the Ministry of Supply.<sup>372</sup>

The Housewives Section of the WVS was an opportunity for those women who wanted to help, but had only a limited amount of time that they could volunteer. All women were encouraged to volunteer time with the local Housewives Service if domestic duties prevented them from participating in the civil defense services, and if no local Housewives Service existed they were urged to start their own with help from the WVS.<sup>373</sup> Every trained housewife displayed a blue card in the window of her home, indicating a place where a civilian might obtain assistance for a variety of problems.<sup>374</sup> Much of the duty of a member of the Housewives Service involved information gathering and record keeping. Housewives were instructed, for instance, to provide the local wardens' post with a list of people sheltering each night in each home on the street, to keep a list of the next-of-kin of every housewife in the road, and to compile a list of who owned ladders in the street and where they were kept.<sup>375</sup> Housewives also made first aid dressings to be distributed to every house in the street for emergencies.<sup>376</sup> Additionally, the Housewives Service was intended to foster cooperation and the boosting of morale

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<sup>371</sup> TNA: HO 186/2241, Ministry of Information, *One Million Women, A Picture Story of the tireless enthusiasm and great achievement of the Women's Voluntary Services for Civil Defence*, n.d., 2.

<sup>372</sup> TNA: HO 186/2241, *Work Done by Women's Voluntary Services for Government Departments*, n.d.

<sup>373</sup> Ministry of Home Security, *A.R.P. At Home Hints for Housewives* (London: HMSO, 1941), 19.

<sup>374</sup> TNA: HO 186/2241, Ministry of Information, *One Million Women, A Picture Story of the tireless enthusiasm and great achievement of the Women's Voluntary Services for Civil Defence*, n.d., 3.

<sup>375</sup> Ministry of Home Security, *A.R.P. At Home Hints for Housewives* (London: HMSO, 1941), 19-20.

<sup>376</sup> *ibid*, 20.

through social gatherings, ensuring there were no lonely people in the street and sharing hospitality with one another in the case of houses becoming too damaged to live in.<sup>377</sup>

The training for the WVS was comprehensive, but largely depended on the type of job. While the WVS offered some broad ARP training for its members, most women subsequently received the training specific to their job in civil defense. Members of the Housewives Section were required to complete basic training in first aid, fire fighting, and elementary ARP.<sup>378</sup> Anti-gas training was included for women in both services. The WVS's anti-gas training included the short course, but many women who volunteered for jobs such as wardens, messengers, or in the casualty services or AFS completed additional anti-gas training.<sup>379</sup>

Recruitment numbers for the WVS and the Housewives Service usually suffered from the same issues as the other civil defense services. The WVS found that large numbers enrolled at times of crises, but that at other times recruitment was "very poor."<sup>380</sup> At the outset of war there were 336,000 members; by 1943 over one million women were in some way engaged in WVS work.<sup>381</sup> The WVS also assisted in recruiting for other services. To recruit drivers for the London Ambulance Service, the WVS sent out copies of the leaflet *Calling All Cars* to all women's clubs, car clubs, and to select garages and hire firms, and subsequently followed this up with personal visits.<sup>382</sup>

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<sup>377</sup> *ibid.*

<sup>378</sup> TNA: HO 186/2241, Ministry of Information, *One Million Women, A Picture Story of the tireless enthusiasm and great achievement of the Women's Voluntary Services for Civil Defence*, n.d., 3.

<sup>379</sup> TNA: HO 186/108, *Women's Voluntary Services for Civil Defence Speaker's Notes*, January, 1939, Appendix IX.

<sup>380</sup> LMA: CL/CD/1/275, *Campaign for London Drivers Suggested by Women's Voluntary Services for Civil Defence*, April 1939, 1.

<sup>381</sup> TNA: HO 186/2241, Ministry of Home Security, *Statement by Herbert Morrison*, June 16, 1943, 1.

<sup>382</sup> *ibid.*

The work of the WVS was consistently praised and received attention from all quarters of the government. The Ministry of Information developed a picture set to showcase the WVS' work, suggesting that this service was best suited for publicity purposes as the WVS would be the only one of the civil defense services likely to have continuing function after the war.<sup>383</sup> The title of this picture set, "One Million Women - A Picture Story of the tireless enthusiasm and great achievement of the Women's Voluntary Services for Civil Defence," indicates the perception of the WVS among the public and government agents.<sup>384</sup> The work of the WVS was judged invaluable and an official claimed the public would not know how to carry on without the help of the WVS.<sup>385</sup> Home Secretary Herbert Morrison, when asked to sum up the importance and achievements of the WVS, said the service was one of "a million magnificent women, who are simply applying the principles of good housekeeping to the job of helping to run their country in its hour of need [...] it is something no man could do, and something that the whole nation will not forget."<sup>386</sup> By 1944 WVS members had been awarded five George medals and 78 Empire Awards for acts of gallantry.<sup>387</sup>

The contributions of the WVS were often defined in how they supported British morale. A Ministry of Information picture set on the WVS commented on a mobile canteen "A cup of tea and a snack when it tastes best—inevitable prop to British

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<sup>383</sup> TNA: HO 186/2241, Letter to A.H. Midgeley, August 21, 1944, 1.

<sup>384</sup> TNA: HO 186/2241, Ministry of Information, *One Million Women, A Picture Story of the tireless enthusiasm and great achievement of the Women's Voluntary Services for Civil Defence*, n.d..

<sup>385</sup> TNA: HO 186/2241, Letter to A.H. Midgeley, August 21, 1944, 1.

<sup>386</sup> TNA: HO 186/2241, Ministry of Home Security, *Statement by Herbert Morrison*, June 16, 1943, 2.

<sup>387</sup> *ibid.*

morale.”<sup>388</sup> Much of the WVS’s work involved caring for people post-raids and thus they were directly responsible for shoring up morale among the homeless and injured. WVS workers staffed the Rest Centers that offered temporary accommodations for the homeless, alongside tea, sandwiches, and clothes in the immediate aftermath of a raid.<sup>389</sup> As part of the Queen’s Messenger Convoys they drove into bombed towns to cook and serve hot food in the first hours of distress, providing a vital service to boost civilian morale.<sup>390</sup> WVS mobile canteens offered tea and sustenance to civil defense workers engaged during air raids, ensuring that vital work could continue.<sup>391</sup> Housewives, too, were instructed to “keep cheerful, and keep others cheerful, too,” because cheerful faces would make the days seem brighter even in the dire circumstances of air raids.<sup>392</sup>

Four years of war proved the success, and the necessity, of the civil defense services. Despite continued issues of enrollment and ever-worsening conditions, the volunteers of the civil defense services performed a vital function that directly supported the larger war effort. Civil defense workers ensured that the country could continue to run in the face of enemy attack and they helped to boost and maintain civilian morale during strenuous times. Many civil defense volunteers either directly or indirectly helped to save the lives of British civilians, often risking their own lives in the process. Without the effort of all of the civil defense services the nation could not have withstood the onslaught of enemy bombs and many more civilian lives would have been lost.

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<sup>388</sup> TNA: HO 186/2241, Ministry of Information, *One Million Women, A Picture Story of the tireless enthusiasm and great achievement of the Women’s Voluntary Services for Civil Defence*, n.d., 1.

<sup>389</sup> Ministry of Home Security, *Frontline 1940-41 the Official Story of the Civil Defence of Britain* (London: HMSO, 1942), 153.

<sup>390</sup> *ibid.*

<sup>391</sup> *ibid.*, 154.

<sup>392</sup> Ministry of Home Security, *A.R.P. At Home Hints for Housewives* (London: HMSO, 1941), 20.

## **Chapter 5 - "The gasmask is not a talisman:" Protecting the Civil Population from Poison Gas, 1915-1945**

The use of poison gas in WWI had drawn significant attention and worry in Britain and the most recognizable symbol of chemical warfare, the gas mask, had become entrenched in the British public consciousness. Anxieties that a future war would see civilians targeted by poison gas were widespread among both the public and the government. During the interwar period various branches of the British government sought to find a solution for the problem of how to protect the entire civilian population from a gas attack, if one came in a future war. Throughout the 1920s the solutions revolved around proofing rooms or shelters against gas, with officials arguing that it was financially and physically impossible to outfit the entire population of Britain with respirators. By the mid-1930s opinions had changed and the government decided, as much for reasons of perception and psychology, to issue every man, woman, and child with their own mask. ARP education taught civilians and civil defense workers how to protect themselves in the case of a gas attack, but the gas mask formed the cornerstone of not only anti-gas measures, but British civil defense, in general.

British civilians did not directly interact with poison gas in WWI, but the experiences with chemical warfare and gas masks of their own armed services, as well as those of civilians on the European continent, shaped their perceptions of gas and anti-gas equipment. British soldiers were subjected to gas attacks and made use of increasingly sophisticated respirators for protection, sharing those experiences with families and friends left at home both immediately during the war and in the years to follow. The gas mask was the most readily visible and permanent symbol of chemical warfare, an item



that was defined by both its protective properties, but also the horror of modern warfare it represented.

The first use of gas in 1915 also immediately led to the first development of protective equipment. Initial masks were crude and usually improvised by the soldiers themselves. Canadian troops who had been gassed at Second Ypres found a wet sock to be effective.<sup>1</sup> To protect against the fumes of chlorine gas others urinated on handkerchiefs.<sup>2</sup> Days after the first gas attack the War Office issued a call to the British public to produce a homemade respirator for the troops, made of bleached cotton wool and gauze to cover nose and mouth.<sup>3</sup> Dubbed the “*Daily Mail* Respirator” the call ran in several national newspapers and the response was so enthusiastic demands had been met within a day.<sup>4</sup> This respirator, however, was not only inefficient and useless, but may have also been an asphyxiation danger to the soldiers using it.<sup>5</sup> The first official respirator issued by the War Office consisted of pads of cotton waste soaked in hypo solution, wrapped in cotton veiling or muslin long enough to tie around the back of the head, intended to cover the wearer’s nose and mouth.<sup>6</sup> Following the mouthpad respirator came various iterations of hooded gas masks. First came the Hypo Helmet, a hypo-impregnated flannel hood with a mica window, then the P Helmet, two layers of phenate-soaked

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<sup>1</sup> C.V. Combe, “Evolution of the Gas Mask,” *Frank Leslie’s Weekly*, May 11, 1918.

<sup>2</sup> TNA: WO 142/278, *Notes on Course of Lectures Delivered to Specialist Gas Officers, Aldershot*, “Lecture 2, Story of Gas Attacks and Evolution of Protective Measures,” September 1916, 1.

<sup>3</sup> *ibid.*

<sup>4</sup> “Respirators Wanted,” *Times* (London), 28 April 1915; “Respirators for the Troops,” *Birmingham Mail*, 28 April 1915; “War Office Appeal for Respirators,” *Manchester Evening News*, 28 April 1915; “Respirators for Protection Against Poisonous Gases in German Shells,” *Leeds Mercury*, 29 April 1915; “Respirators for Troops,” *Surrey Mirror*, 30 April 1915;

<sup>5</sup> “House of Commons, Respirators,” *Times* (London), 7 May 1915.

<sup>6</sup> TNA: WO 142/263, M. Carey Morgan, “Report on the Work of Women in Connection With The Anti-Gas Department,” 29 January 1919, p. 2.

flannelette with round glass eyepieces and an exhale valve, and lastly the PH Helmet, which added another protective chemical to the impregnation.<sup>7</sup> This unattractive and uncomfortable gas helmet came to be known colloquially among British soldiers as the “goggle-eyed booger with the tit.”<sup>8</sup> By 1917 respirators had become increasingly more sophisticated, offering better protection and comfort to the wearer. The Small Box Respirator (SBR) consisted of a form-fitting full-face mask of rubberized fabric and an inflated rubber edge with two separate triplex glass eyepieces and head straps. A valve allowed air to be exhaled more easily, but to inhale air was drawn through a corrugated rubber hose that attached to a tin canister carried in a satchel on the soldier’s chest.<sup>9</sup>

British civilians could avail themselves to commercial models of respirators, most of them offering little or no protection. Such commercial models were marketed either to be used by civilians at home in case of a possible attack or to be sent by worried families to their loved ones serving on the front. Ambitious entrepreneurs, like Wallach Brothers, Ltd., placed ads in British newspapers selling various forms of “respirators” marketed in some way as protecting the troops. The “Combat” Respirator was an aluminum mask, marketed as providing “protection with comfort” and to be used at the front. While the ad never states what the mask is intended to protect the wearer from, its inclusion of the word “respirator” and “front” was likely intended to convey gas-protective properties to the reader.<sup>10</sup> Harrods, too, sought to profit from the new threat and ran newspaper ads

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<sup>7</sup> TNA: WO 142/263, M. Carey Morgan, “Report on the Work of Women in Connection With The Anti-Gas Department,” 29 January 1919, p. 2; TNA: WO 142/278, *Notes on Course of Lectures Delivered to Specialist Gas Officers, Aldershot*, “Lecture 2, Story of Gas Attacks and Evolution of Protective Measures,” September 1916, 2.

<sup>8</sup> Robert Graves, *Goodbye To All That* (New York: Vintage International, 1998), 198.

<sup>9</sup> TNA: WO 142/263, M. Carey Morgan, “Report on the Work of Women in Connection With The Anti-Gas Department,” 29 January 1919, p. 2.

<sup>10</sup> “‘Combat’ Aluminum Respirator,” *Times* (London), May 6, 1915.

instructing readers on which type of respirators were available for purchase in various departments. These respirators included ones made from cotton wool, double stockinette, and even models knitted from fine or scoured wool.<sup>11</sup> Like the similar *Daily Mail* respirator, these models sold by Harrods provided no actual protection from gas and may have even proved dangerous to the wearer.<sup>12</sup> Marshall & Snelgrove of Leeds sold prepackaged parcels customers could have sent to soldiers overseas, which contained socks, gloves, a scarf, a belt, and a “protective gas mask.”<sup>13</sup> While it is unclear how many commercial respirators may have been sent to troops by well-meaning family members or friends, numbers proved problematic enough that the War Office urged the public to stop sending non-official respirators to the front.<sup>14</sup> For civilians fearful of a gas attack at home the War Office urged that they purchase only respirators made to government standards.<sup>15</sup> Enough civilians purchased and wore masks that news even reached British soldiers in the trenches. One soldier wrote in a letter of his amusement at hearing that Londoners were wearing masks which sounded useless compared to the official equipment and urged his sister not to bother using such a mask.<sup>16</sup>

While civilians did not directly experience gas attacks during WWI, they had learned of the horrors of the new weapon and come to recognize the gas mask as its symbol. Even the limited aerial raids on Great Britain during the war had given rise to anxieties that gas could be used against civilians in such attacks, although this never

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<sup>11</sup> “Harrods, Ltd,” *Times* (London), 29 April, 1915.

<sup>12</sup> “Respirators for the Troops,” *Times* (London), June 15, 1915.

<sup>13</sup> “Marshall & Snelgrove,” *Yorkshire Evening Post*, November 13, 1915.

<sup>14</sup> “Respirators an Improved Type Adopted,” *Times* (London), June 4, 1915.

<sup>15</sup> “Official Advice on Raid Precautions,” *Times* (London), October 1, 1917.

<sup>16</sup> IMW: Misc 11, Item 242, “Letter from Western Front, June 1915,” June 26, 1915.

came to pass. It was easy to extrapolate, however, for government officials and civilians alike that a future war, with improved machinery could see civilians directly targeted by chemical weapons and such anxieties continued to exist even after the end of the war. The gas mask, as the best means of protection against poison gas, also continued to receive attention in the years following WWI.

Despite the condemnation of chemical warfare and its subsequent ban, there was considerable concern in the interwar period that poison gas would be used again and this time against civilians. The limited success of German zeppelin raids on England had shown that in a future war the civil population was going to be a likely target and the British government needed to find ways to protect its citizens, particularly against gas. The Air Raid Precautions Sub-Committee and the Sub-Committee on the Production of Respirators, under the purview of the Committee of Imperial Defence (CID), took up this issue in the 1920s, seeking a solution that would allow for the wholesale protection of the entire British population. With the responsibility of ARP transferred to the Home Office, both sub-committees came under the direction of the MHS in 1936.<sup>17</sup> During a decade of discussion the CID considered several options, largely based on financial and physical possibilities, before arriving at the decision to issue respirators to the entire civil population prior to WWII.

In 1924 the CID first addressed the problem of protecting civilians from a gas attack. A report by the Chemical Warfare Committee titled “Memorandum on the Protection of the Civil Population Against Gas Attack” outlined the potential of a gas attack against civilians and concluded that such an attack would have “serious and far-

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<sup>17</sup> TNA: CAB 46/30, Committee of Imperial Defence, Air Raid Precautions Sub-Committee, Sub-Committee on the Production of Respirators, *Proceedings*, n.d.

reaching effects” if not guarded against.<sup>18</sup> The Committee suggested several means of protection for the civil population, including the dissemination of knowledge on gas attacks and precautionary measures, an air raid alarm, the provision of shelters, the creation of a decontamination service, and the creation of a casualty service.<sup>19</sup> The report considered the idea of gas masks, but dismissed this as impracticable for several reasons: Respirators did not protect the body against mustard gas, a respirator needed to be fitted to work and the person wearing it required training in its use, there were no respirators for infants, and manufacture of the numbers needed would be impossible.<sup>20</sup> Instead the Committee recommended that people go indoors during a gas attack as the main line of defense and to further improve on the protection by selecting one room and sealing it to create a gas-proof refuge.<sup>21</sup> The CID agreed with the Chemical Warfare Committee and adopted their recommendations, stating that the principle civilian protection against gas was to go indoors and remain there until the all clear had been given.<sup>22</sup> Arguments against providing civilians with respirators were not only concerned with feasibility and cost. One official argued that if the government provided people with respirators it might give them the idea that they were immune from danger.<sup>23</sup>

Over the next decade opinion on the necessity and feasibility of civilian respirators shifted significantly as a result of several issues. While a gas-proofed room had always

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<sup>18</sup> TNA: CAB 3/4, Chemical Warfare Committee, *Memorandum on the Protection of the Civil Population Against Gas Attack*, 1924, 1.

<sup>19</sup> *ibid*, 10.

<sup>20</sup> *ibid*, 12.

<sup>21</sup> *ibid*.

<sup>22</sup> TNA: CAB 3/4, Committee of Imperial Defence, *Protection of Civil Population against Gas Attack*, April 2, 1925, 1.

<sup>23</sup> TNA: CAB 46/30, Committee of Imperial Defence, Air Raid Precautions Sub-Committee, *Minutes of Meeting*, February 6, 1934, 10.

been considered to be the first line of defense against a gas attack, recalculations of expected bombardments necessitated a change in policy. By 1930 officials envisioned a much greater intensity of bombardment in a future war, which would in turn also cause higher concentrations and less dispersal of gas clouds.<sup>24</sup> Additionally, heavy bombardment would likely break windows and walls and render any room no longer gas-proof.<sup>25</sup> This meant not only that civilians would require more effective protection, but that the gas masks supplied to police and civil defense services would need to offer better and longer protection against gas.<sup>26</sup> Researchers concluded that while the first line of defense ought to still be a gas-proof room, it was now necessary to provide some form of individual protection, as well.<sup>27</sup> Porton Down, the military's research complex that housed the Chemical Defence Research Department (CDRD), began research into designing a cheap form of respirator that would offer a degree of protection for the civilian population.<sup>28</sup>

By 1934 government committees had reached the conclusion that some type of civilian respirator was necessary. Initially, this meant encouraging private manufacture of respirators to a government-specific design that companies could then sell for a reasonable profit.<sup>29</sup> The government would then urge civilians to purchase masks, but only those of an approved design.<sup>30</sup> Companies were naturally eager to adopt this strategy and several wrote the Home Office to encourage the idea and seek approval for their

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<sup>24</sup> TNA: WO 189/4032, *Respirators for Civilians*, Porton Report No. 824, May 30, 1930, 2.

<sup>25</sup> *ibid.*

<sup>26</sup> *ibid.*, 3.

<sup>27</sup> *ibid.*, 4.

<sup>28</sup> TNA: WO 188/394, Porton Down, *Respirators for Civilians*, May 30, 1930, 5.

<sup>29</sup> *ibid.*, 5-7.

products.<sup>31</sup> One agent likened the purchase of a gas mask to the buying of any other form of insurance, such as life insurance.<sup>32</sup> Others thought that even if the public were not yet ready to buy respirators, “demand [could] be created by skilful publicity.”<sup>33</sup> By early 1934 the CID argued for legislation to cover the design, construction, and materials of respirators for sale to the public and to ensure that only officially approved respirators could be sold.<sup>34</sup> Additionally, they sought to make it an offense to sell any respirator other than one of an approved pattern.<sup>35</sup> Officials, however, did see some potential problems with the commercial model of protecting the civil population. The CID considered that at the outbreak of war demand would significantly outstrip supply, which also raised concerns over foreign imports, the quality and efficacy of which could not be properly controlled.<sup>36</sup> Another concern was that private enterprises, naturally wishing to advertise their product, would create publicity or propaganda that could cause undue concern

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<sup>30</sup> *ibid*, 7-8.

<sup>31</sup> TNA: HO 45/17583, Robert H. Davis to Home Office, December 28, 1933; TNA: HO 45/17583, F.S. Whitfield to Home Office, December 6, 1933; TNA: HO 45/17583, Managing Director Simonis Limited to Home Office, November 7, 1933.

<sup>32</sup> TNA: HO 45/17583, *Note of an Interview with Mr. Geoffrey Hudson, regarding a suggestion to form a Company for the manufacture and sale of Gas Masks*, November 2, 1933, 2.

<sup>33</sup> TNA: HO 45/17583, *Note of a Proposal to form a Company for the Manufacture of Gas Masks for sale to the Public*, November 8, 1933, 1.

<sup>34</sup> TNA: CAB 46/30, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Report*, March 6, 1934, 2.

<sup>35</sup> *ibid*, 3.

<sup>36</sup> *ibid*, 5, 8.

among the population.<sup>37</sup> A major problem, which had been ignored by officials prior to the CID's March 1934 report, was that many families would be unable, or unwilling, to pay the estimated ten shillings per head for a respirator they might never require and which needed to be replaced in some years' time.<sup>38</sup>

Ultimately the government realized it would have to bear the burden of producing, issuing, and storing respirators for the civilian population. In March 1934 the Air Raid Precautions Sub-Committee considered for the first time whether it was not possible to produce "a really cheap respirator at a much smaller price" and whether it was desirable to provide such an item to the public.<sup>39</sup> The Committee particularly cited the cost of private purchase and the psychological aspect of the issue.<sup>40</sup> It was also pointed out that if the government suggested civilians purchase their own masks for protection that this could imply some obligation to provide respirators for all those who could not themselves afford to buy one.<sup>41</sup> A special ARP Sub-Committee meeting in mid-1934 determined that a civilian respirator should be suitable for wear by men, women, and children, that it should allow the wearer to be recognized in order to avoid frightening young children, that it should provide adequate protection against gas, that it should be both of a low cost and suitable for mass production, and that it should have a long life in storage.<sup>42</sup> The aim was to keep production cost of the civilian respirator at two shillings or less per mask and

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<sup>37</sup> *ibid*, 9.

<sup>38</sup> *ibid*.

<sup>39</sup> *ibid*, 10.

<sup>40</sup> *ibid*.

<sup>41</sup> TNA: CAB 46/30, Committee of Imperial Defence, Air Raid Precautions Sub-Committee, *Minutes of Meeting*, February 13, 1934, 3.

<sup>42</sup> WO 188/394, *Essential Features required in a respirator for the civilian population at large*, June 26, 1934, 1.



that materials preferably either be produced in Britain or be available in large enough quantities in the country in a time of emergency.<sup>43</sup> The standard of protection afforded by the civilian respirator against gas was set as approximately two minutes protection in heavy concentrations and at lesser concentrations at a quarter to half an hour of protection.<sup>44</sup> While the Committee did not yet have a solution for the protection of children and babies, it was suggested to have a different pattern respirator “less good for intelligent people” that could be used for babies and irresponsible persons.<sup>45</sup> The Committee also expected to accumulate and store millions of respirator prior to an outbreak of war, estimating at minimum a store of ten million with the assumption that stored respirators had a life of five to ten years.<sup>46</sup> Initial plans called for a supply of 40 million civilian gas masks for free issue, with a supplementary five million added in 1938, to be produced by 1939, at a total cost of over £4.5 million.<sup>47</sup>

What had swayed governmental opinion was public perception and psychology. At a meeting of the Air Raid Precautions Sub-Committee in 1934 one member pointed out that at the start of an emergency, when the civil defense services would be issued with masks, there would also be “an insistent clamour from the population in general [...] for the supply of an efficient respirator [...]”<sup>48</sup> In early 1934 the CID considered the likelihood of the public demanding the government provide respirators at the outbreak of

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<sup>43</sup> *ibid.*

<sup>44</sup> *ibid.*, 2.

<sup>45</sup> TNA: WO 188/394, Committee of Imperial Defence, *Provision of Respirators for Civilians*, Minutes of Conference, June 12, 1934, 5.

<sup>46</sup> *ibid.*, 10.

<sup>47</sup> TNA: HO 45/18536, Committee of Imperial Defence, *Requirements of Civilian Respirators*, March 1938, 3; TNA: HO 45/18536, Committee of Imperial Defence, *Requirements of Civilian Respirators*, January 21, 1937, 1.

war and concluded that “pressure might be so insistent that this might have to be done.”<sup>49</sup> The CID also pointed out the discontent and social unrest that would likely occur when, at the outbreak of war, the only respirators available were financially out of reach of a considerable percentage of the population.<sup>50</sup> Without the production of a cheap and simple respirator there was also not going to be a sufficient supply of gas masks at the start of an emergency, even if the government decided to issue its existing stocks to civilians.<sup>51</sup> The CID expected “tremendous public demand” on the outbreak of war for respirators and concluded that a simple mask needed to be produced to meet demand and prevent social unrest.<sup>52</sup> Even after the government had decided to lay in stores of civilian respirators for issue in case of war not every civilian would have been eligible to receive one. Plans had initially involved grading populations on the likelihood of attack and about seven million people (graded as D) would not have been issued respirators, however, by 1937 the Home Office decided that to delimit areas where no respirators would be provided was “politically impracticable.”<sup>53</sup>

During the interwar years research into respirators and other possible means of protection had been extensive. In 1928 an experiment intended to find a cheap means of gas protection by treating various textiles with common household items.<sup>54</sup> Only thin

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<sup>48</sup> TNA: HO 45/17583, Committee of Imperial Defence, Air Raid Precautions Sub-Committee, *Minutes of Meeting*, January 15, 1934, 2.

<sup>49</sup> TNA: CAB 46/30, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Report*, March 6, 1934, 5.

<sup>50</sup> *ibid*, 10.

<sup>51</sup> *ibid*.

<sup>52</sup> *ibid*.

<sup>53</sup> TNA: HO 45/18536, Committee of Imperial Defence, *The Requirements of Civilian Respirators*, March 1938, 1.

<sup>54</sup> TNA: WO 189/3888, A.E. Childs and W.A. Salt, *Investigation of Possibilities of Producing a Simple Civilian Respirator*, Porton Report No. 643, September 4, 1928.

toweling and wool stockinette offered the right breathing resistance, but when treated with alcohol, glycerine, borax, common salt, vinegar, sugar, starch, soap, tea, or milk this improvised respirator offered little or no protection at all against phosgene.<sup>55</sup> While some minimal protection against diluted phosgene was achieved through several layers of material treated with certain soaps, it was found that this solution had a caustic effect on the skin when worn.<sup>56</sup> In the case of mustard gas only fatty or oily substances offered any protection.<sup>57</sup> The report concluded that if a respirator were to be made entirely of household items it would require six strips of stockinette soaked in washing soda and six strips treated with melted butter or lard tied together and wrung out, with the butter layer worn against the skin. This could offer as many as thirty minutes of protection against phosgene and forty minutes against mustard, but the researchers suggested a much higher order of protection could be achieved through a simple charcoal respirator.<sup>58</sup>

Foreign inventions were consistently tested and evaluated at Porton Down. Early in 1931 Porton collated information on civilian respirators in other European nations, but could only get detailed information and confirmation of masks provided to civilians from Russia.<sup>59</sup> A Belgian respirator intended for the civil population, constructed from an old inner tube, was dismissed by researchers at Porton because despite its production clearly having been intended to keep cost low “this had been carried beyond the limit for which reasonable protection can be provided.”<sup>60</sup> Foreign children’s respirators were of a

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<sup>55</sup> *ibid*, 3.

<sup>56</sup> *ibid*, 4.

<sup>57</sup> *ibid*, 6.

<sup>58</sup> *ibid*, 7.

<sup>59</sup> TNA: WO 188/394, Porton Down, *Foreign Respirators for Civil Population, Summary of information available 9/3/31*, March 10, 1931, 3.

<sup>60</sup> TNA: WO 188/394, Porton Down, *Belgian Respirator (F. 116)*, April 24, 1935.

particular interest at Porton, who had yet to develop protection for British children. A Russian child's mask tested was found to be of good gas tightness, but with a face piece so uncomfortable the mask was unwearable for long periods of time and Porton researchers concluded the design was not worthy of note.<sup>61</sup>

Finding a cheap, efficient civilian respirator capable of being mass produced was not easy. While other European governments were conscious of the gas threat, they balked at the cost of supplying free respirators to their populations and in most nations civilians were required to purchase available masks.<sup>62</sup> Some researchers worried that the feature-obscuring properties of gas masks would prevent civilians from wearing them, suggesting that an effective civilian mask must therefore allow the wearer to be seen and recognized by friends and family.<sup>63</sup> One official worried that if the government put out a design for a cheap respirator, rumors might arise that suggested that although a better mask could be produced it was impossible because the government was interfering with private manufacture.<sup>64</sup> Additionally, there was concern that if a respirator was too cheap the public would think it was not as effective as a more expensive model.<sup>65</sup> Porton eventually developed a design that largely met the requirements of cost, protection, and

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<sup>61</sup> TNA: WO 188/394, Porton Down, *Russian Respirator (F.92)*, September 22, 1933, 3.

<sup>62</sup> "Denmark to Distribute Gas Masks to Civilians," *New York Times*, September 28, 1933.

<sup>63</sup> TNA: WO 188/394, Committee of Imperial Defence, Air Raids Precautions (Organisation) Sub-committee, "Provision of Respirators for Civilians, Minutes of Conference," June 12, 1943, 6.

<sup>64</sup> TNA: HO 45/17583, Committee of Imperial Defence, Air Raid Precautions Sub-Committee, *Minutes of Meeting*, January 15, 1934, 3.

<sup>65</sup> *ibid.*

fit, and began production of the model in 1936.<sup>66</sup> The first fit tests of the new civilian mask followed soon after.<sup>67</sup>

As tensions rose in 1938 the government determined the danger was sufficient and began issuing their stock of respirators to the civil population. Civilians would go to one of several distribution centers in their area to be fitted with and receive their mask.<sup>68</sup> Some local authorities held fitting drives that would ask civilians to come to one of several fitting centers, try on the masks, and be issued with a color-coded card (yellow for large, blue for medium, red for small) they would hand in to be given a respirator during an emergency.<sup>69</sup> In rural areas those who had been fitted previously were supplied with respirators in their own homes, while others went to distribution centers to be fitted and supplied.<sup>70</sup> Another two and a half million respirators were sent to Northern Ireland, Egypt, Malta, and other parts of the British empire.<sup>71</sup> After tensions eased and it became clear there would be no war the Home Office considered withdrawing the respirators it had just issued, but decided it was easier to leave them distributed and ensure civilians knew how to take care of their masks, instead.<sup>72</sup> Boxes were to be delivered to local authorities for issue to civilians for the protection of their respirators and the Home Office instructed the wardens' service to make a complete record of who had received a respirator and to

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<sup>66</sup> "Gas Masks For All," *Ballymena Observer*, July 24, 1936.

<sup>67</sup> TNA: WO 189/4421, Porton Down, *Porton Report No. 1787, First Fitting Report - General Civilian Respirator*, September 20, 1937.

<sup>68</sup> "Gas Mask Distribution," *Sevenoaks Chronicle and Courier*, September 30, 1938.

<sup>69</sup> "Gas Mask Fitting Starts Tomorrow," *Gloucestershire Echo*, September 26, 1938.

<sup>70</sup> "Gas-Mask Distribution," *The Chronicle and Courier*, September 30, 1938.

<sup>71</sup> TNA: HO 45/18536, Home Office, *Home Office Memorandum No. 9/1939, Civilian Respirators*, April 24, 1939, 1.

<sup>72</sup> LMA: CL/CD/1/212, Mr. W. Eady to the Clerk of the County Council, *Civilian Respirators*, October 28, 1938, 1.

inspect the ones that had been issued.<sup>73</sup> Experience had shown that the civilian respirator was “not a robust article” and significant wear and tear had occurred in the months since issue from civilians carrying their masks with them.<sup>74</sup> The rush to issue respirators as tensions seemed to escalate also meant that masks were not always properly fitted for the person, requiring re-fitting and re-issue of respirators several years later.<sup>75</sup> Less than a year after the September Crisis the Home Office found that initial estimates of 45 million needed respirators had been low and requested a total number of 60 million respirators for the 43 million British civilians over the age of four.<sup>76</sup>

The General Civilian Respirator (GCR) was the answer to the need for an affordable gas mask that offered complete protection from poison gas for a majority of the British population. Available in three sizes (small, medium, and large) the GCR consisted of a thin sheet-rubber face piece that covered eyes, nose, and mouth, a large cellulose acetate window, and a filter container attached directly to the mask near the chin by means of a rubber band. Webbing straps kept the mask in position on the head and allowed the wearer to tighten the respirator for a gas-tight fit.<sup>77</sup> Initially the GCR cost two shillings, but minor improvements in design had raised the price to three shillings per unit by mid-1939.<sup>78</sup>

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<sup>73</sup> TNA: HO 45/18536, Home Office, *Home Office Memorandum No. 9/1939, Civilian Respirators*, April 24, 1939, 2.

<sup>74</sup> *ibid.*

<sup>75</sup> TNA: HO 186/2112, Parker to E.S. Snelling, June 9, 1941.

<sup>76</sup> TNA: HO 45/18536, Home Office, *Home Office Memorandum No. 9/1939, Civilian Respirators*, April 24, 1939, 2.

<sup>77</sup> S. Evelyn Thomas, *A Concise, Fully Illustrated and Practical Guide for the Householder and Air-Raid Warden*, 5th ed. (Preston: James Askew & Son Ltd., 1939), 21.

<sup>78</sup> TNA: HO 45/18536, *Civilian Respirator*, March 30, 1939.

Abnormal facial features could make it impossible to achieve a proper fit with the regular civilian mask. To provide a proper seal and offer gas protection the face piece of the respirator needed to lie flat against the wearer's face. Achieving gas-tightness was often impossible for persons with abnormal facial features, such as hollow temples or cheeks or a narrow face and the MHS needed a simple, and cheap, solution to allow these civilians to wear the regular respirator. The solution was elongated, round pads of sponge and sheet rubber that were glued to the respirator face piece in the areas of the face where the seal could not be achieved.<sup>79</sup>

Much of the Home Office's ARP education campaign revolved around the gas mask. Not only was the gas mask the most easily visible aspect of civil defense, but the high-cost program also represented the government's attempt to protect its civilians. Public Information Leaflet No. 2, issued before the outbreak of war, specifically instructed civilians on the care and storage of their respirators, as well as urging them to practice donning and doffing the mask.<sup>80</sup> Another pamphlet urged civilians to treat the respirator as "your best friend; know all about it."<sup>81</sup> One official worried that British civilians, unlike their German counterparts, were too untrained in gas discipline to ensure the proper working of the respirator during an attack, and urged the government to increase the education campaign through leaflets and broadcasts.<sup>82</sup> Government radio broadcasts, given by officials of various departments, usually mentioned the need to carry

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<sup>79</sup> TNA: HO 186/1487, Ministry of Home Security, *Appendix to Home Security Circular No. 196/1941, Instructions for Using the Special Pads for Civilian Respirators*, September 1941.

<sup>80</sup> Ministry of Home Security, *Public Information Leaflet No. 2, Your Gas Mask How to Keep It and How to Use It-Masking Your Windows* (London: HMSO, 1939).

<sup>81</sup> TNA: HO 186/2112, *Draft Leaflet for the Public, The Respirator*, n.d., 1.

<sup>82</sup> TNA: HO 186/2112, *Minute Sheet*, February 27, 1940.

the respirator, to ensure a good fit, and how to care for it.<sup>83</sup> Cinema trailers that discussed the respirator served as a visual reminder for the public.<sup>84</sup>

Instilling gas mask confidence in civilians was vital. Civilians needed not only to have confidence in the physical function of their respirators, but in the respirator program, and in turn the government, itself. Education campaigns ensured civilians knew how their masks worked and offered reassurances of the respirators' efficacy, but doubts persisted. An unofficial test done by a newspaper dismissed the GCR as ineffective, forcing the Home Office to issue a statement that the GCR was well-tested and worked as advertised for brief periods of time in low concentrations of gas.<sup>85</sup> ARP officials were often called on to reassure the public that their respirators would offer complete protection, particularly when rumors sometimes suggested otherwise.<sup>86</sup> Newspapers played an important role in convincing the public of the efficacy of their respirators. An article in the *Aberdeen Press and Journal* reminded readers that gas was an effective weapon only against the unprepared and that they need not be victims as they had "dependable" gas masks.<sup>87</sup> Another newspaper urged its readers to hold a weekly family gas mask drill to instill confidence in using the mask among all members of the household.<sup>88</sup> Others reported on the confidence gained in the respirators by civilians going through tear gas chambers, suggesting to their readers that the masks could be

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<sup>83</sup> TNA: HO 186/315, W.P. Matthew, *Questions In The Air A.R.P.*, August 29, 1939; IMW: 32371, BBC, "Government Announcements," Track 5, 1939.

<sup>84</sup> IMW: HOY 81, Film, 1938; *How to Fit a Gas Mask* (1939, Ministry of Information).

<sup>85</sup> "Civilian Gas Masks are Safe," *Tamworth Herald*, August 20, 1938.

<sup>86</sup> "Civilian Gas Mask Enough Protection," *Manchester Evening News*, November 1, 1941.

<sup>87</sup> "Gas Masks ARE Dependable," *Aberdeen Press and Journal*, May 9, 1941.

<sup>88</sup> "Family Gas Mask Drill," *Sunderland Echo and Shipping Gazette*, February 2, 1940.



trusted.<sup>89</sup> One official, however, cautioned the *Times* not to oversell the protective qualities of the mask, particularly in light of Herbert Morrison's broadcast claim that the GCR offered "complete protection against every form of war gas," as this could prove problematic in the event of a gas attack.<sup>90</sup> "The civilian gasmask," he wrote, "is not a talisman, and its powers are limited as its name denotes [...]," urging that while civilians train with their masks and carry them, they nevertheless needed to comprehend its limits and take other protective measures in the event of an attack.<sup>91</sup>

A vital aspect of respirator training involved putting the public through gas chambers where they could directly experience the efficacy of their own respirator against tear gas. Home Office officials suggested that gas chamber training worked to get the public "gas-minded" and to allow them to gain confidence in their masks.<sup>92</sup> Gas chamber training was not mandatory and the percentage of civilians taking part differed greatly in each locality. In Gateshead local officials sent 50% of the population through the chamber, in part to combat press rumors that a large percentage of gas masks were faulty.<sup>93</sup> One regional officer boasted that anti-gas propaganda had sent thousands of persons through his gas chambers to test the fit of their masks.<sup>94</sup> In Kingston-on-Thames local officials set up a gas chamber because many of their civilians were dubious about their masks and while many people arrived rather nervous at the test, after going through

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<sup>89</sup> "Trust Mask After Tear Gas 'Raid'," *Daily Mirror*, February 18, 1941; "Gas Mask Proved," *The Scotsman*, October 6, 1939; "Without Fear or Favour," *Grantham Journal*, October 7, 1939.

<sup>90</sup> TNA: HO 186/2116, S.C. Leslie to the Editor of the *Times*, "Gasmasks," April 1, 1941.

<sup>91</sup> *ibid.*

<sup>92</sup> TNA: HO 186/2112, Mr. Seaman, *Anti-Gas Measures, Inspection of Respirators*, 1941, 1.

<sup>93</sup> *ibid.*

<sup>94</sup> TNA: HO 186/2112, Regional Training Officer, *Inspection of Civilian Respirators*, April 19, 1941.

the chamber they left “with a store of confidence.”<sup>95</sup> Such gas chamber tests were vital not only to instill confidence in the public that their masks could actually protect them, but also served to prove the government’s claim that the respirators were effective and that it was doing everything possible to protect its civil population.

To be of use in a gas attack the respirator needed to be donned swiftly and civilians were instructed consistently to always carry their masks. Rumors of the Germans planning to use gas in mid-1940 made the need to carry masks appear more urgent and Winston Churchill instructed that civilians be “enjoined to use [their respirators] and carry them everywhere.”<sup>96</sup> Difficulty of enforcement, however, prevented any order to carry respirators from being compulsory.<sup>97</sup> It was also considered to bar anyone without a respirator from places of entertainment, but the cinema industry were strongly opposed to this on grounds of possible loss of custom.<sup>98</sup> Some cinemas, however, did bar entry to patrons without masks, usherettes checking each person carried their respirator before admittance.<sup>99</sup> Other venues, such as dance and concert halls, followed.<sup>100</sup> The members of both Houses of Parliament were asked to set an example for their constituencies by regularly carrying their masks.<sup>101</sup> Government departments were instructed to ensure that all civil servants carried their respirators and civil defense workers were similarly asked

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<sup>95</sup> “These Gas Mask Tests are Popular,” *North-eastern Gazette*, September 28, 1939.

<sup>96</sup> TNA: CAB 120/777, Winston Churchill to General Ismay, July 23, 1940.

<sup>97</sup> TNA: HO 186/2098, Home Defence Executive, *Notes of Meeting*, July 25, 1941, 1.

<sup>98</sup> *ibid.*

<sup>99</sup> “Humour in Crime Story, Bogart as Conceited Gangster,” *Derby Daily Telegraph*, September 19, 1939.

<sup>100</sup> “Dancing, Ritz,” *Manchester Evening News*, September 20, 1939; “Dancing, Monday 20th, in the co-operative hall, Hartlepool,” *Hartlepool Northern Daily Mail*, November 17, 1939.

<sup>101</sup> TNA: HO 186/2098, *Note on Publicity Following on the Minister’s Statement in the House on 27th March*, 1941, 1.

to set a good example in their carrying practices.<sup>102</sup> A column to be published in the morning papers made the claim that most people were complying with the carry instructions and that the sight of the mask carrier had become so commonplace that to meet someone without it immediately made one wonder what was wrong with his appearance. The column also, however, urged civilians to keep carrying their masks.<sup>103</sup> The *Illustrated London News* depicted the Queen as cheerful despite troubled times, pointing out specifically that she was carrying her gas mask in a satchel.<sup>104</sup> Newspaper articles continued to remind civilians to carry their masks, sometimes even going beyond what the Home Office had envisioned. The *Manchester Evening Chronicle* drew the ire of some officials when it called for drastic measures against those caught not carrying their masks, particularly when local businesses and cinemas refused to admit people without at the behest of the paper.<sup>105</sup> While propaganda and education campaigns led to increases in civilians carrying their masks, but officials felt that the number of the public doing so was still unsatisfactory.<sup>106</sup> Women were often a special focus of the carry campaign, as officials feared that during a gas attack a man would give up his mask to a woman who was not carrying hers.<sup>107</sup> Tear gas exercises being held in the streets were thought to increase the number of civilians carrying their respirators.<sup>108</sup> One such

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<sup>102</sup> *ibid.*

<sup>103</sup> TNA: HO 186/2098, Press Officer Ministry of Home Security, *Need I Go on Carrying My Gas-Mask?*, October 4, 1939.

<sup>104</sup> "The Queen Smiles Cheerfully Despite The Troubled Times," *Illustrated London News*, September 16, 1939.

<sup>105</sup> TNA: HO 186/2098, Memorandum to Mr. R.S. Wood, 1940; "Where's Your Gas Mask," *The Evening Chronicle*, March 7, 1940.

<sup>106</sup> TNA: HO 186/2112, Regional Training Officer, *Inspection of Civilian Respirators*, April 19, 1941.

<sup>107</sup> "Carry Gas Masks-Women Warned," *Daily Mirror*, March 29, 1941.

<sup>108</sup> TNA: HO 186/2112, Regional Training Officer, *Inspection of Civilian Respirators*, April 19, 1941.

exercise in Birmingham, however, found that while most civilians carried their masks the day of the exercise, having been forewarned of the need in the papers, the day after the exercise few Birmingham citizens were observed carrying their respirators.<sup>109</sup> Tear gas tests held without warning caused a number of citizens to suffer “inconvenience and discomfort” and incurred “a good deal of odium” for the government department in charge.<sup>110</sup>

Despite being urged to carry their masks everywhere at the start of the war, many civilians did not comply. An inspector from Porton was dismayed at the indifference of the average Londoner to respirators and anti-gas measures.<sup>111</sup> At a brewery he found no more than five workers out of 300 carrying their respirators, although among the office staff 85% had their masks with them.<sup>112</sup> The same pattern repeated at other workplaces, with the laborers failing to bring their respirators and office staff largely complying with the carry instructions.<sup>113</sup> Many asked the inspector why the government had not made it compulsory to carry masks, and the suggestion was made that entry to entertainment or public transport should be barred for anyone without a respirator.<sup>114</sup> The general public apathy in regard to gas masks led the Home Office to consider altering the guidelines as early as 1940, although officially the guidelines were not to be relaxed, only the wording altered.<sup>115</sup> Civilians were now instructed to not leave their respirators where they could

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<sup>109</sup> TNA: HO 186/2098, Birmingham Town Clerk to Sir Herbert Morrison, August 15, 1941, 1.

<sup>110</sup> TNA: HO 186/2098, *Compulsory Carrying of Gas Masks, Tear-Gas Tests*, n.d.

<sup>111</sup> TNA: HO 186/2112, Regional Officer Group Four, *Visit of Mr. Davies, from Porton*, May 30, 1941, 1.

<sup>112</sup> *ibid.*

<sup>113</sup> *ibid.*

<sup>114</sup> *ibid.*, 2.

<sup>115</sup> TNA: HO 186/2098, *Minute Sheet*, April 18, 1940.

not reach it on short notice, however, this was vague enough to cause confusion.<sup>116</sup> One London hospital complained that a large number of patients admitted had come without their respirators, the majority of them juveniles.<sup>117</sup> The hospital blamed the parents, who often refused to send the child's respirator even after being asked to do so.<sup>118</sup> By 1942, however, rubber shortages made the repair or replacement of damaged masks prohibitively expensive or near impossible and the Home Office decided to relax carrying guidelines to save respirators from damage.<sup>119</sup> The government expected to have some hours notice if a gas attack came and instructed civilians that they would warn them publicly if such an attack was imminent and the public needed to carry their masks with them.<sup>120</sup> One leaflet now instructed readers to always take the respirator when leaving home overnight or entering a dangerous area.<sup>121</sup> Relaxing carrying guidelines not only saved respirators from damage, but also made the very obvious defiance of government instructions less visible or a non-issue entirely.

Inspectors consistently encountered respirator complacency and apathy during their duties. Not every civilian was eager to have his respirator inspected and some officials considered an Order that would require civilians to bring their masks to a predetermined place in each locality to be inspected, and if they did not comply a warden would visit

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<sup>116</sup> TNA: HO 186/2098, *Carrying of Gas Masks, Draft*, n.d., 1; TNA: HO 186/2098, Memorandum to Mr. Crutchley, April 19, 1940, 1.

<sup>117</sup> LMA: CL/CD/1/212, North-Eastern Hospital to London County Council Public Health Department, *Patients' Gas-masks*, April 21, 1941.

<sup>118</sup> *ibid.*

<sup>119</sup> TNA: HO 186/2098, Ministry of Home Security, *Annex I, Carrying of Respirators*, January 29, 1942, 1; TNA: HO 186/2098, Memo to G.D. Kirwan, March 21, 1942, 1.

<sup>120</sup> *ibid.*, 2.

<sup>121</sup> TNA: HO 186/2112, *Draft Leaflet for the Public, The Respirator*, n.d., 1.

their residence to carry out the inspection.<sup>122</sup> The Home Office, however, was reluctant to officially compel inspection, as they did not believe local authorities would wish to enforce such an order through prosecution.<sup>123</sup> One official considered inspecting workers' respirators at the factories where they were employed, but quickly dropped the idea because he did not want to be accused of interfering with production.<sup>124</sup> When produced for inspection some respirators, although in working condition, were found to be dirty and full of dust.<sup>125</sup> One respirator carton was found to have a mouse nest inside.<sup>126</sup> Some civilians mislaid their respirators at department stores, buses, trains, and eateries.<sup>127</sup> One newspaper article claimed that seventy gas masks were brought into lost property offices daily in London, with no one bothering to claim them.<sup>128</sup> In Hull a large number of civilian masks were recovered from municipal refuge dumps.<sup>129</sup> One official worried that a first gas attack would catch many members of the public without respirators and even those who did carry or keep them nearby would find them faulty as a result of neglect.<sup>130</sup> The resulting loss of confidence in the respirator and public panic was the primary concern.<sup>131</sup>

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<sup>122</sup> TNA: HO 186/2112, Letter to G.D. Kirwan, June 19, 1942.

<sup>123</sup> *ibid.*

<sup>124</sup> TNA: HO 186/2112, Letter to Wing Commander Hodsoll, July 14, 1942, 1.

<sup>125</sup> TNA: HO 186/2112, Regional Officer II, *General Summary*, March 17, 1941; TNA: HO 186/2112, Regional Training Officer, *Inspection of Civilian Respirators*, April 19, 1941.

<sup>126</sup> TNA: HO 186/2112, Regional Officer II, *General Summary*, March 17, 1941.

<sup>127</sup> TNA: HO 186/2112, *Extracts from reports received by the Inspector General giving details of respirator inspection in the Regions*, n.d., 1.

<sup>128</sup> "70 Gas Masks Lost Each Day in London," *Edinburgh Evening News*, September 6, 1939.

<sup>129</sup> "Gas Masks in Refuge Tips," *Nottingham Journal*, September 18, 1939.

<sup>130</sup> TNA: HO 186/2098, *The Civilian Respirator*, January 30, 1943, 2.

<sup>131</sup> *ibid.*

The GCR was also easy to damage. In February 1939, just a few months after the GCRs were issued, a house-to-house inspection in Islington revealed 11% of the respirators required replacement due to damage.<sup>132</sup> A 1941 inspection of respirators in Region 6 found between 5% to 10% of gas masks damaged beyond the local ability to repair them, while numbers of those who had simply lost their respirators were generally negligible.<sup>133</sup> One regional officer complained that it seemed those who obeyed instructions and carried their masks had damaged respirators and that the masks “of the unconscientious only are in good order.”<sup>134</sup> Inspectors often blamed unofficial containers, usually those of a tin variety, causing the majority of damage, such as cracking of the eyepieces and breaking down of the rubber.<sup>135</sup> The metal containers allowed the respirator to move about, which caused damage through jostling and chafing, while soft containers allowed respirators to be crushed and often led to the face piece being folded incorrectly.<sup>136</sup> The majority of the damage of inspected respirators consisted of small holes in the face piece, cracked eyepieces, or worn-through rubber parts.<sup>137</sup> Others were damaged by dampness, had dented filter containers, or were missing their rubber bands or inlet valves.<sup>138</sup> Within months of issuing the GCR to all civilians, the CDRD were already investigating a more durable type of civilian respirator, which ultimately became the

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<sup>132</sup> TNA: HO 45/18536, *Civilian Respirators*, February 14, 1939, 1.

<sup>133</sup> TNA: HO 186/2112, No. 6 (Southern) Region, *Inspection of Respirators*, February 27, 1941.

<sup>134</sup> TNA: HO 186/2112, Mr. Hughes-Gibb to Inspector General, January 29, 1941.

<sup>135</sup> TNA: HO 186/2112, Newcastle to Home Security Teleprinter Message, *Respirator Inspection*, April 1941; TNA: HO 186/2112, Mr. Seaman, *Anti-Gas Measures, Inspection of Respirators*, 1941, 1.

<sup>136</sup> TNA: HO 186/2112, No. IV (Eastern) Region, *Report on the Inspection of Respirators*, March 17, 1941, 2.

<sup>137</sup> *ibid*, 1.

<sup>138</sup> *ibid*.

Mark II GCR.<sup>139</sup> Some respirators were damaged or destroyed as a result of air raids and the Home Office instructed local authorities to ensure those persons could have their respirators replaced or repaired immediately, even on a Sunday, at no charge.<sup>140</sup> Those civilians who had damaged masks not due to air raids were charged one shilling and sixpence to repair a damaged face piece and one shilling to repair a broken container.<sup>141</sup>

Complaints about the gas mask were widespread. After the distribution of Public Information Leaflet No. 2 some civilians complained that the pamphlet instructed them to care for a mask they had yet to receive.<sup>142</sup> The people of Cheltenham experienced “great anxiety” at the delay of their gas mask issue in mid-1939, arguing that they would have been helpless should an air attack have come.<sup>143</sup> One lawyer criticized the lack of instruction right before the school holidays on whether or not to bring respirators along on family travels.<sup>144</sup> Some civilians thought the mask was rather flimsy.<sup>145</sup> Many people who tried on the respirator felt claustrophobic and feared suffocation, tearing it off anxiously after only a few minutes.<sup>146</sup> Women or girls with long or thick hair sometimes were unable to achieve a gas-tight fit, because the hair raised the gas mask too far off the face.<sup>147</sup> The filter container, attached to the bottom of the mask, was relatively heavy,

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<sup>139</sup> TNA: HO 45/18536, *Civilian Respirator*, March 30, 1939.

<sup>140</sup> LMA: CL/CD/1/212, Home Office, *Home Security Circular No. 104/1941, Replacement of Respirators lost or damaged in air raids*, May 9, 1941, 1.

<sup>141</sup> “Testing of Civilian Gas Masks,” *Southern Reporter*, March 25, 1943.

<sup>142</sup> TNA: HO 186/115, Letter by Leslie Thorne, August 3, 1939; F.T. Crutchley to Leslie Thorne, August 3, 1939.

<sup>143</sup> “Steel Helmets Better than Gas-Masks,” *Gloucestershire Echo*, May 8, 1939.

<sup>144</sup> TNA: HO 186/115, Letter by W.G. Bishop, July 17, 1939.

<sup>145</sup> TNA: HO 45/17213, Chief Medical Officer, *Part I, Summary of Remarks by Certain Selected Doctors*, November, 1937, 1.

<sup>146</sup> *ibid*, 1-2.

<sup>147</sup> *ibid*, 2.



straining the neck muscles and forcing the mask and head down among some of the population.<sup>148</sup> One of the biggest concerns among some members of the public was that spectacles could not be worn with the respirator, as it would undermine gas-tightness and many worried about being able to see while wearing the mask.<sup>149</sup> The design of the mask also regularly caused the face piece to mist up with condensation, sometimes making vision near impossible.<sup>150</sup>

Despite some public apathy in regard to the respirator, the gas mask nevertheless became concomitant with life in wartime Britain. It served as a physical reminder of both the dangers of war and the duties of each citizen in civil defense, as well as the government's effort to protect its population. While early fitting tests discovered several issues, officials nevertheless concluded that they instilled confidence in civilians by "making them aware that efficient measures are being taken to provide for their safety [...]."<sup>151</sup> Such fitting tests that allowed civilians to interact with the respirator also stimulated public interest in ARP.<sup>152</sup> As such a symbol the gas mask featured particularly in imagery that directly associated it with civil defense efforts and protection. Civilians were often depicted being fitted for gas masks, such images working to both remind the viewer of the threat of gas and his or her own duties in being prepared.<sup>153</sup> Civil defense workers were shown practicing for emergencies or carrying out their duties in gas

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<sup>148</sup> *ibid.*

<sup>149</sup> *ibid.*, 1-2.

<sup>150</sup> TNA: HO 45/17213, Chief Medical Officer, *Part II, Reports by Dr. Hammer on Work Carried out in Two LCC Hospitals*, November, 1937, 11-12.

<sup>151</sup> TNA: HO 45/17213, Chief Medical Officer, *Part I, Summary of Remarks by Certain Selected Doctors*, November, 1937, 1-2.

<sup>152</sup> *ibid.*

<sup>153</sup> *Northampton Mercury & Herald*, July 19, 1935; "Intelligent Anticipation," *Lincolnshire Echo*, July 11, 1935.

masks.<sup>154</sup> Children, too, absorbed the gas mask into their everyday lives; even before the outbreak of war British toymakers began offering a variety of military-themed toys, including a toy gas mask that sold for sixpence.<sup>155</sup> The civilian gas mask was enough of a symbol of the British government that members of the IRA burned scores of respirators in Belfast.<sup>156</sup>

The gas mask also featured in more humorous ways that clearly showcase its adoption as a necessary part of wartime living. One town held a civilian gas mask dance competition, with a prize going to the person able to keep their mask on the longest.<sup>157</sup> Gas mask races were also popular, such as one event that had participants racing in masks and hoods they were then asked to remove mid-way before returning to the start.<sup>158</sup> At the Plymouth Greyhound Stadium a hound named “Gas Mask” participated in a race.<sup>159</sup> The gas mask was also commemorated in popular music, with songs such as “My Wee Gas Mask” and “I Did What I Could With My Gas Mask” entertaining crowds with lyrics that used the respirator in non-approved, but humorous, ways.<sup>160</sup>

While developing a cheap and functional civilian respirator had not been easy, finding a way to protect small children was an even bigger concern. In the 1930s Porton Down was working on developing a mask for adults, but no protection as of yet existed

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<sup>154</sup> “Anti-Gas Training for V.A.D. Nurses,” *Yorkshire Post*, October 26, 1935; “New Deer Show Pulls and Ponies,” *Aberdeen Press and Journal*, August 12, 1935; “Cornish Nurses’ Gas Mask Drill,” *Western Morning News and Daily Gazette*, July 31, 1935.

<sup>155</sup> “English Toy Market Takes Martial Tone,” *New York Times*, December 15, 1935.

<sup>156</sup> “Gas Masks Seized and Burned in Belfast,” *Northern Whig and Belfast Post*, May 30, 1939.

<sup>157</sup> “Dance Civilian Gas Mask Competition,” *The Warminster Journal*, April 25, 1941.

<sup>158</sup> “Crystallite Sports,” *Kent & Sussex Courier*, June 28, 1935; “Gas Mask Race at Cycle Rally,” *Sunday Post*, June 1, 1941; “West Hartlepool Holidays-at-Home, Alterations to Programmes, On Wednesday August 4th,” *Northern Daily Mail*, July 31, 1941.

<sup>159</sup> “Plymouth Stadium Greyhounds,” *Western Morning News*, June 7, 1941.

for children and babies. This issue was concerning enough that Parliament specifically asked for solutions to protect young people and infants against gas.<sup>161</sup> Young children had smaller faces, often making it impossible to achieve a proper fit with a normal-sized respirator. Their smaller lungs could also make it more difficult to draw or expel breath through the mask. Additionally, the gas mask was uncomfortable enough for adults who could be persuaded to wear them for their own safety, but young children were likely to tear off their respirators or become frightened by them. The British Small Child's Respirator was developed specifically to address most of these concerns.

It was designed to fit small faces and to be worn safely by young children. Since children breathe less air than an adult, the container attached to the child's respirator was smaller and of a lighter weight than that of the GCR.<sup>162</sup> The cone-shaped type face piece of the GCR did not properly fit children's faces and a more form-fitting face piece was necessary to ensure airtightness on a child's face.<sup>163</sup> Its facepiece was made of a lightweight, non-irritating, and soft rubber that would easily conform to the shape of the child's face.<sup>164</sup> The head harness was specifically designed for small children, providing a good fit without pulling too tightly and making it difficult for the child to remove the mask himself.<sup>165</sup> The special construction of the mask also meant that its cost was more

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<sup>160</sup> Dave Willis, "My Wee Gas Mask," recorded 1939; George Formby, "I Did What I Could With My Gas Mask," recorded 1941, Regal Zonophone. Shellac.

<sup>161</sup> "Medical Notes in Parliament," *The Lancet*, Vol. 1, No. 3928, April 18, 1936, 823.

<sup>162</sup> TNA:WO 188/407, *Memorandum on the Anti-Gas Protection of Babies and Young Children*, June 1939, 1.

<sup>163</sup> TNA: WO 188/407, *Notes on a Conference Held at the Experimental Station, Porton 26.8.38 to Discuss the Protection of Babies and Small Children*, August 1938, 4.

<sup>164</sup> TNA:WO 188/407, *Memorandum on the Anti-Gas Protection of Babies and Young Children*, June 1939, 2.

<sup>165</sup> *ibid*, 1.

than that of the GCR, costing as much as five shillings to produce in 1938.<sup>166</sup> By 1943 a lost children's gas mask cost three shillings and six pence to replace.<sup>167</sup>

It was important that a child's respirator not be frightening. Some thought it very likely that children would become terrified at the sight of the "strange and rather awful looking piece of equipment."<sup>168</sup> The Small Child's Respirator was made of colorful red rubber, two large eyepieces, red imitation nose, and blue filter. The soft but lightweight face piece and hard-to-remove harness made it ideal for small faces, while the "attractive" coloring was intended to entice children to wear it.<sup>169</sup> Its unique coloring and makeup gave the mask the nickname Mickey Mouse gas mask.<sup>170</sup> Not everyone agreed that the mask succeeded in being non-frightening to children. One mother at a trial of the mask wrote that despite belief that the color would attract a child, the bright color, two eyes, and nose actually made it more frightening than the adult mask to an older baby just beginning to recognize features.<sup>171</sup>

While the mask overcame the basic physiological problem of protection small children, psychological issues persisted. The Mickey Mouse mask was intended for young children who were not always obedient enough to wear a respirator without attempting to remove it and were too young to understand its purpose. It was likely that at some point a child would become tired of wearing the respirator and attempt to remove it,

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<sup>166</sup> TNA:WO 188/407, Porton Down, *Informal Conference on Baby Protection*, August 5, 1938, 6.

<sup>167</sup> "Testing of Civilian Gas Masks," *Southern Reporter*, March 25, 1943.

<sup>168</sup> Alden H. Waitt, "The Gas Mask: The great problem in protection is training, discipline, and organization," *American Journal of Nursing*, Vol. 42, No. 7, July 1942, 751.

<sup>169</sup> TNA:WO 188/407, *Memorandum on the Anti-Gas Protection of Babies and Young Children*, June 1939, 1.

<sup>170</sup> *ibid.*

<sup>171</sup> TNA:WO 188/407, H.G. Findley, *Report on Trials of Baby Bags, Appendix*, July 19, 1938, 5.

requiring either constant adult supervision or some form of restraint for the arms.<sup>172</sup>

While the mask was designed specifically to make it difficult for a child to remove, a child's struggles could still displace the mask enough to leak and allow gas to enter.<sup>173</sup>

Fitting trials found that the Mickey Mouse mask ought to be issued more as a matter of psychology than physiology, finding that it was near impossible to protect very young children determined to resist.<sup>174</sup> Some resistant children were strapped into their masks by two adults using "sheer force" and, unsurprisingly, the researchers found these children became hysterical and unable to tolerate the mask.<sup>175</sup> The trials also found that children who had at some point previously been given a general anesthetic for surgery regarded the wearing of the respirator with terror.<sup>176</sup>

These issues made it vital that parents accustom their children to the wearing of the mask. Government instructions suggested introducing the mask to young children "in the manner which is most likely to win their interest and collaboration in wearing it."<sup>177</sup> The best option was considered to be introducing the mask as a play object and to introduce it to a group of children at once.<sup>178</sup> Even nervous children, it was suggested, could be inspired to don the respirator when seeing other children wearing it with confidence.<sup>179</sup> Children who failed to tolerate the Mickey Mouse respirator or became unduly frightened

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<sup>172</sup> *ibid.*, 2.

<sup>173</sup> TNA:WO 188/407, Porton Down, *Informal Conference on Baby Protection*, August 5, 1938, 6.

<sup>174</sup> TNA:WO 188/407, Porton Down, *Porton Report No. 1984, Report on Fitting Tests with the Children's Respirator*, August 25, 1938, 2.

<sup>175</sup> *ibid.*

<sup>176</sup> *ibid.*, 2.

<sup>177</sup> TNA:WO 188/407, *Memorandum on the Anti-Gas Protection of Babies and Young Children*, June 1939, 1.

<sup>178</sup> *ibid.*

<sup>179</sup> *ibid.*, 4.

while wearing it would need to be issued a Baby's Anti-Gas Helmet, instead, although parents were urged to remove the child's fear through persuasion.<sup>180</sup> One parent crafted toy gas masks for each of her child's dolls and teddy bears to accustom the child to the sight and idea of a respirator.<sup>181</sup>

The Mickey Mouse gas mask and the GCR provided protection for all British children over two years of age. The Mickey Mouse mask protected younger children, with smaller faces and less-developed lungs. Children as young as five could also be fit with the GCR. The three sizes of the GCR allowed it to fit a variety of faces and almost all British schoolchildren were issued a GCR for protection.<sup>182</sup> The rapid growth of children, however, meant that a mask that was fitted properly one year might no longer afford efficient protection a year later. Teachers inspecting their students' masks, often in the case of evacuated children, found many had outgrown their respirators and asked local authorities to fit the children with new masks.<sup>183</sup> Children, however, were the biggest perpetrators of respirator wear and tear. Schoolchildren were mandated to carry their respirators to school and regularly had them inspected in class.<sup>184</sup> Children were thus the only part of the population to regularly and consistently carry their respirators with them, causing damage to the masks at a higher rate than the rest of the civil population. In Oxfordshire a respirator inspection found around 5% damaged beyond

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<sup>180</sup> *ibid.*

<sup>181</sup> "Does your child howl at its gas mask?" *Evening Despatch*, November 15, 1939.

<sup>182</sup> TNA: WO 189/4421, Porton Down, *Porton Report No. 1787, First Fitting Report - General Civilian Respirator*, September 20, 1937.

<sup>183</sup> LMA: EO/WAR/1/42, E.A. Meadows to Harpenden Town Clerk, n.d.; LMA: EO//WAR/1/42, Headmistress Nightingale to London Education Officer, November 8, 1939.

<sup>184</sup> TNA: HO 186/2112, Board of Education, *Schoolchildren's Gas Masks*, May 10, 1941, 1.

local repair, nearly every case one of a schoolchild.<sup>185</sup> In Feltham an inspection discovered that 75% of schoolchildren had defective masks.<sup>186</sup> The masks of schoolchildren often showed cracks in the eyepieces and perforation of the rubber face pieces, generally caused by normal wear and tear on the carton.<sup>187</sup> Many masks were worn through where the rubber joined the mouthpiece through the constant movement of the mask against its container.<sup>188</sup> Weather conditions sometimes exacerbated the wear on both carton and respirator.<sup>189</sup> Some children carried their masks in metal containers instead of the cardboard box, which easily led to damage of the glass eyepieces.<sup>190</sup> The Home Office also considered a national campaign to stop the use of soft carrier, especially among children, which they blamed for the majority of the damage done to respirators.<sup>191</sup> Evacuation was a significant contributor to respirator damage. The LCC instructed its Head Teachers to inspect the masks of evacuated children and to make enquiries about the location of masks that may have been lost.<sup>192</sup>

Not all damage done to respirators was due to wear and tear, however, and there were consistent complaints from wardens and other inspectors about children's treatment of their masks. One warden complained that the children did not at all care about their respirators, even kicking them about as footballs.<sup>193</sup> One child had painted his gas mask a

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<sup>185</sup> TNA: HO 186/2112, No. 6 (Southern) Region, *Inspection of Respirators*, February 27, 1941, 1.

<sup>186</sup> TNA: HO 186/2112, Mr. Hughes-Gibb to Inspector General, January 29, 1941.

<sup>187</sup> TNA: HO 186/2112, Senior Regional Officer (Scotland), *Inspection of Respirators*, March 15, 1941.

<sup>188</sup> TNA: HO 186/2112, Mr. Hughes-Gibb to Inspector General, January 29, 1941.

<sup>189</sup> TNA: HO 186/2112, Senior Regional Officer (Scotland), *Inspection of Respirators*, March 15, 1941.

<sup>190</sup> *ibid.*

<sup>191</sup> TNA: HO 186/2112, Letter to G.D. Kirwan, July 29, 1941.

<sup>192</sup> LMA: EO/WAR/1/42, London County Council, Education Officer's Department, *Care of Gas Masks*, October 29, 1939, 2.

<sup>193</sup> TNA: HO 186/2112, J.W. Morsley, *Telephone Intercept*, April 28, 1942.

vivid red in order to play “red Indians.”<sup>194</sup> In Bradford two groups of children in their newly-issued respirators staged mock battles across parallel park trenches.<sup>195</sup> Other children were playing conkers with their masks, a game that involved holding the carrier by its string while another child would attempt to hit the carrier with his own.<sup>196</sup> One alderman was disgusted at seeing children playing soldier at night in the streets wearing their masks.<sup>197</sup> Subsequently some local areas simply stopped inspecting children’s respirators on account of the shortage of spares and the impossibility of replacing the damaged masks.<sup>198</sup>

Evacuated children and their gas masks were a consistent problem for authorities. Children in reception areas, after the long travel or as a result of living in close quarters with many other children, often had broken, lost, or ill-fitted masks that required repair or replacement. Local authorities in the reception areas did not always feel responsible for the gas masks of non-local children.<sup>199</sup> In some cases the local authority was unable to supply respirators to evacuated children because of low stock, as respirators had initially been supplied by the Home Office based on local population.<sup>200</sup> One teacher in the Infants Department applied locally three times to have the broken mask of an evacuated child fixed, but was told the child would have to return to London for a new mask.<sup>201</sup> The headmistress of a London girls’ school, finding several girls in need of bigger masks,

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<sup>194</sup> *ibid.*

<sup>195</sup> “Gas Masks as Toys,” *Western Morning News*, September 30, 1938.

<sup>196</sup> TNA: HO 186/2098, Memorandum to Mr. R.S. Wood and Sir George Gater, 1939.

<sup>197</sup> “Gas Masks as Toys,” *Western Morning News*, September 30, 1938.

<sup>198</sup> TNA: HO 186/2112, *Checking of Respirators*, April 16, 1942.

<sup>199</sup> LMA: EO/WAR/1/42, Memorandum from Miss Cosens to Miss Nussey, February 28, 1940.

<sup>200</sup> LMA: EO/WAR/1/42, Isle of Ely A.R.P. Organiser to E.M. Rich, November 13, 1939.

<sup>201</sup> LMA: EO/WAR/1/42, Headmistress Nightingale to London Education Officer, November 8, 1939.



worried that if she sent them back to London to be fitted they would not return.<sup>202</sup> Even when local authorities agreed to help, the solution was not always easy. A teacher of a London infants' school found that the local ARP center in the reception area was only willing to repair masks for the price of 1 shilling and sixpence, which neither the school or foster parents could be expected to pay.<sup>203</sup> Some schools paid the money for gas mask repairs and then sought to recover the cost from the child's parents in London, but one school official worried about those parents who would be unable to pay.<sup>204</sup>

Fitting a respirator to a small child had been problematic, but protecting babies from poison gas presented an almost impossible problem. Babies under two years of age were too small, and too unwilling, to wear any type of mask on their faces at all. Their lungs were too underdeveloped to be able to draw breath through a gas mask filter. In the years leading up to war Porton Down, the MHS, and the War Office conducted extensive research and experiments to find the most effective and affordable means of protecting babies from gas. The Baby's Anti-Gas Helmet was an imperfect solution that nevertheless offered full poison gas protection to the most vulnerable members of the population.

Researchers tested many different concepts of gas protection for babies. One suggestion for reducing the concentration of gas that would reach a baby was to wrap the infant completely in a blanket, overcoat, or waterproof, although it was admitted that this would not offer effective protection.<sup>205</sup> A Belgian baby protection device was found to be inadequate, as it required an adult to wear a mask attached to a tray and bag combination that the baby would be inserted in, with the adult drawing breath through a filter for both

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<sup>202</sup> *ibid.*

<sup>203</sup> LMA: EO/WAR/1/42, Ivy P. Cole to Mr. Dines, September 25, 1940.

<sup>204</sup> LMA: EO/WAR/1/42, Letter by F.A. Horne, *Gas Masks*, n.d.

of them.<sup>206</sup> Not only was the air flow not enough, but such a setup would prevent the adult from handing the baby off in an emergency.<sup>207</sup> A baby bag invented by Messrs. Jenkins and Banners was found unsatisfactory because two hands were needed to operate the bellows, the pressure of pumping was imposed on the infant's stomach, and the arrangement of the bellows was unsound.<sup>208</sup> A different baby bag sought to have the baby supply its own air through a mechanism that would operate the bellows when the infant kicked.<sup>209</sup> Ideas also included a gas-proof bed, which offered humidity control.<sup>210</sup> Gas-proof perambulator designs were considered inferior protection because it would require the purchase of a special perambulator and enclosed the child completely without a means to draw air inside.<sup>211</sup> By the end of 1938 researchers determined that gas protection for babies would likely have to be a device which did not fit against the face like a gas mask, but enveloped the baby's head or body in an airtight manner.<sup>212</sup> The main requirements for such a device were its efficacy in protection, portability that would allow the baby to be passed off, a minimum of discomfort for the baby, and that it be acceptable to mothers.<sup>213</sup>

The Baby Anti-Gas Helmet (initially called the Protective Helmet Design) overcame the major issues of protecting babies. This design was developed because it

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<sup>205</sup> TNA: WO 188/2060, Letter to L.B. Turner, July 26, 1939.

<sup>206</sup> TNA: WO 188/2060, *Belgian Protective Device for Babies*, November 10, 1939, 1.

<sup>207</sup> *ibid.*

<sup>208</sup> TNA: WO 188/2060, Porton, *Baby Bag by Messrs. Jenkins and Banners*, February 8, 1939, 1.

<sup>209</sup> TNA: WO 188/2060, *Baby Bag Device Submitted by Mr. P.F. Willoughby*, December 1938.

<sup>210</sup> TNA: WO 188/2060, Commandant of the C.D. Experimental Station to the Chief Superintendent of the Chemical Defence Research Dept., May 22, 1939, 1.

<sup>211</sup> TNA: WO 188/407, Porton Down, *Gas-proof Perambulator*, December 5, 1938.

<sup>212</sup> TNA: WO 188/407, Defensive Munitions Department, *Porton Report No. 2045, Memorandum on the Protection of Babies and Young Children against Gas*, November 25, 1938, 1.

met all of the requirements and early trials showed it to be a “workable” design.<sup>214</sup> After positive early trials in October 1938 the Home Office adopted the baby helmet as its design and began production.<sup>215</sup> It consisted of a bag-like device of rubberized fabric that covered the baby completely from the waist up, a large cellulose acetate window to allow the infant to look out, a string around the opening to close the bag tight, and an external air pump that had to be operated by an adult.<sup>216</sup> The hood was surrounded by and fastened to a light metal frame, lengthened on the underside and with an adjustable tailpiece to provide support and protection for the baby’s back.<sup>217</sup> The underside of the bag was padded, although this could be removed since it was likely to be soiled by the baby, and mothers were encouraged to provide some type of washable padding or cover instead.<sup>218</sup> The rubber bellows attached to the hood and, when operated, would draw air through a container that filtered all poison gas.<sup>219</sup> The air would then pass through a specially shaped orifice that directed the air away from the baby’s head. A slow and steady rate of pumping at about 40 strokes per minute was enough to supply even an

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<sup>213</sup> *ibid.*, 2.

<sup>214</sup> *ibid.*

<sup>215</sup> TNA: WO 188/407, Chemical Defence Research Department, *Protection of Babies and Young Children - Babies’ Helmet Device and Children’s Respirator*, October 25, 1938, 1.

<sup>216</sup> TNA: WO 188/407, Defensive Munitions Department, *Porton Report No. 2045, Memorandum on the Protection of Babies and Young Children against Gas*, November 25, 1938, 2.

<sup>217</sup> TNA:WO 188/407, *Memorandum on the Anti-Gas Protection of Babies and Young Children*, June 1939, 3.

<sup>218</sup> *ibid.*

<sup>219</sup> *ibid.*

older child with air and pumping could be stopped for several minutes if necessary.<sup>220</sup> At trials it was found that an unassisted mother could insert her child into the helmet in an average time of about thirty seconds.<sup>221</sup>

Despite the helmet being the best solution for babies there were lingering concerns. Inserting the infant into the helmet was not always easy or quick and some worried that the hurried insertion during an air raid alarm would upset and terrify the child. The resulting screaming and struggling infant fighting the helmet was “most undesirable.”<sup>222</sup> Others recognized a potentially fatal flaw in the design for older children: if the child ran away from the adult in charge of the air pump the air would stop and the child could suffocate.<sup>223</sup> During trials a four-year-old struggled determinedly when the mother tried to put her into the helmet, running away and attempting to escape out the door before the mother, instructed to imagine gas was entering the room, succeeded in inserting her into the helmet.<sup>224</sup> The manpower required to supply air to the enclosed infants was a particular concern in hospitals and nurseries. One maternity hospital worried that although they had plenty of anti-gas helmets for the babies that in a crisis there would not be enough people to operate the pumps of each individual baby helmet.<sup>225</sup> It was near impossible to safely feed the enclosed child and thus lengthy periods under a gas alarm

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<sup>220</sup> *ibid.*

<sup>221</sup> TNA:WO 188/407, *Report on Trial of Baby Bag: Mark I - DMD3 at Bristol*, June 2, 1938, 3.

<sup>222</sup> TNA:WO 188/396, *Summary of Methods of Protecting Small Children*, Porton Report No. 1657, January 16, 1937, 3.

<sup>223</sup> TNA:WO 188/396, J.U. Hope to Chief Superintendent of the Chemical Defense Research Dept., November 24, 1937.

<sup>224</sup> TNA:WO 188/407, *Report on Trial of Baby Bag: Mark I - DMD3 at Bristol*, June 2, 1938, 3.

<sup>225</sup> TNA: WO 188/2060, Letter to Sir Joseph, February 12, 1941.

could easily led to hungry, crying infants.<sup>226</sup> Cost was also a considerable issue. At a price of nearly £2 the Home Office and local authorities kept tight control of the baby's helmet.

There were many suggestions on how to ensure a calm and compliant baby inside the helmet. One couple wrote to the MHS to offer suggestions, pointing out that they had acclimated their newborn son to his helmet by inserting him into it regularly and that there was no fear of the helmet on the part of newborn babies.<sup>227</sup> They also argued that although the baby could see its mother through the window of the helmet, the mother would be wearing a feature-obscuring gas mask, as well, and suggested she regularly wear a bright article, such as a turban, while feeding the child that she could also wear with her gas mask to allow the baby to recognize her.<sup>228</sup> A government memorandum suggested that most children took quite well to the helmet and many even went to sleep once inside.<sup>229</sup> A rebellious, older child, the memo continued, could be quickly placed inside the helmet by an adult despite its resistance and, once inside, "such children usually cease to resist and appear contented."<sup>230</sup>

At the start of the Munich Crisis there were no supplies of any type of protection for babies or children too young to wear the GCR. A temporary solution was to provide children over two with the regular small size civilian respirator and to tighten the top of the face piece back over the head to make the mask fit closely on the cheeks.<sup>231</sup> While

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<sup>226</sup> TNA: WO 188/2060, Stanley and Winifred Gerdes to Minister of Home Security, March 12, 1941, 2.

<sup>227</sup> *ibid*, 1.

<sup>228</sup> *ibid*, 2.

<sup>229</sup> TNA:WO 188/407, *Memorandum on the Anti-Gas Protection of Babies and Young Children*, June 1939, 3.

<sup>230</sup> *ibid*.

<sup>231</sup> TNA: WO 188/407, Chemical Defence Research Department, *Improvisation of Small Civilian Respirator to Fit Children*, July 19, 1939, 1.

this would mean the eyepieces did not line up with the child's eyes and impair visibility, parents were assured that the safety of the respirator would not be affected.<sup>232</sup> While children over two could be partially accommodated with regular civilian masks, infants who had not yet been issued a baby helmet had no such options. It was suggested instead to prepare a gas-proof refuge in the house, through covering doors and windows with blankets and stuffing cracks with newspaper, and in case of an air raid warning to also place the baby inside a washtub or drawer, which could be covered with a blanket in case of a gas attack.<sup>233</sup> This airtight and unventilated blanket-covered receptacle would offer gas protection for a few minutes and allow an adult to remove the child to a safe atmosphere.<sup>234</sup> By mid-1939 limited supplies of both the baby helmet and the child's gas mask became available, but local authorities planned to keep the masks in stock until an emergency arose.<sup>235</sup> Production was still lagging behind need, however, and one suggestion was to use the Baby Anti-Gas Helmet, the production of which was ahead of the Mickey Mouse mask, for children over two but too small to wear a GCR effectively.<sup>236</sup> Similar to the procedure adopted for the GCR, parents in some districts were asked to bring their infants into a center for fitting. In the City of Westminster wardens and other volunteers staffed five fitting centers for eight hours a day during one week in August 1939 to fit babies for the anti-gas helmet.<sup>237</sup>

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<sup>232</sup> *ibid.*

<sup>233</sup> TNA: WO 188/2060, *Protection of Small Children and Babies Against Gas*, n.d., 1-2.

<sup>234</sup> TNA: WO 188/2060, Commandant of the C.D. Experimental Station to the Chief Superintendent of the Chemical Defence Research Dept.

<sup>235</sup> LMA: CL/CD/1/212, Home Office, *A.R.P. Department Circular No. 150/1939, Supplies of Respirators for Small Children and Anti-Gas Protective Helmets for Babies*, July 18, 1939.

<sup>236</sup> TNA: WO 188/407, Chemical Defence Research Department, *Improvisation of Small Civilian Respirator to Fit Children*, July 19, 1939, 2.

<sup>237</sup> City of Westminster, *A.R.P. Gas Helmets for Infants Under 2 Years*, August 22, 1939.

Once war broke out in September 1939 authorities were quick to issue protection for children and babies. The Secretary of State ordered that baby helmets be issued on September 7<sup>th</sup>, 1939 from distributing centers in the local authority.<sup>238</sup> Supplies were still extremely limited and no protective helmet was to be issued to a child over two.<sup>239</sup> By October all supplies of protective helmets and Mickey Mouse masks had been distributed already and the Home Office was only able to supply local authorities with around 40 to 50% of their estimated requirements.<sup>240</sup> The Home Office instructed the local authorities to issue the Mickey Mouse mask only to children who were under three and too big to wear the protective helmet.<sup>241</sup>

The General Civilian Respirator, the Small Child's Respirator, and the Baby Anti-Gas Helmet offered sufficient protection from poison gas for the vast majority of the British civil population. Some elements of the civil population, however, could not be fitted with regular respirators and, although this group represented a relatively small number, the government sought to find means of protection for those who fell outside the norm. Additionally, while the civilian respirator offered gas protection for someone quickly fleeing the scene of an attack, those civil defense volunteers who would be exposed to gas for longer periods of time in the pursuit of their duties required more sophisticated equipment. Volunteers of the civil defense services were issued either the Civilian Duty Respirator or the Service Respirator, depending on their specific duty.

Civilians with medical conditions often had difficulty using the regular gas mask. The General Civilian Respirator lacked an outlet valve and air passed out between the

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<sup>238</sup> LMA: CL/CD/1/212, Harold Scott, *London Regional Circular No. 43*, September 8, 1939.

<sup>239</sup> *ibid.*

<sup>240</sup> LMA: CL/CD/1/212, Sheepshanks to E.C.H. Salmon, October 7, 1939, 1.

edges of the face piece and the wearer's face.<sup>242</sup> This significantly increased the effort required to exhale and making it unusable for persons with respirator difficulties.<sup>243</sup> The MHS found that the cheapest solution was simply adding an outlet valve to the existing respirator face pieces for people with asthma, fibrosis, tuberculosis, cardiac disease, old age, or obesity, who could produce a medical certificate signed by a doctor specifying that they required this special addition.<sup>244</sup> The outlet valve added six pence to the cost of the General Civilian Respirator.<sup>245</sup> A special helmet-type mask was developed specifically for persons completely unable to wear a conventional respirator and was intended for disabilities such as tracheotomy cases, facial deformity, extreme dyspnea or cardiac disease, tuberculosis, and head wounds with bandages.<sup>246</sup> This helmet, similar to the Baby's Anti-Gas Helmet, included bellows to provide filtered air to the wearer.<sup>247</sup> Supplies of this helmet were primarily intended for hospitals, with some issued to persons who could produce a medical certificate, as the price, over £1, was significantly more

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<sup>241</sup> *ibid.*

<sup>242</sup> TNA: HO 45/17213, *The Civilian Respirator*, n.d., 3.

<sup>243</sup> TNA: HO 186/1487, Ministry of Home Security, *Respirators for Persons with Respiratory Troubles*, Memorandum No. 12/1940, June 14, 1940, 1.

<sup>244</sup> *ibid.*, 1-2.

<sup>245</sup> TNA: HO 186/1487, Ministry of Home Security, *Home Security Circular No. 28/1941, Respirators for Persons with Respiratory Troubles*, January 31, 1941, 1.

<sup>246</sup> TNA: HO 186/1487, *Extract from Note by Major Martin on Gen. 202*, n.d.

<sup>247</sup> TNA: HO 186/1487, Letter to P.G. Stock, May 15, 1940.



than the regular civilian respirator.<sup>248</sup> Despite the extra cost the MHS and Treasury Department decided to issue these special masks free of charge, arguing that persons required these adaptations through no fault of their own and often as a result of war wounds.<sup>249</sup>

The volunteers of the civil defense services also required special respirators to properly allow them to perform their duties. Initially called the Special Service Respirator, this mask was intended for personnel who would be asked to perform their normal duties in the presence of gas, but were not likely to be continuously exposed to higher concentrations.<sup>250</sup> While similar to the Service Respirator, this gas mask was modified to simplify production and reduce cost.<sup>251</sup> It consisted of a rubber face piece with a cylindrical container filter directly attached to the mask, two valves to facilitate breathing, and strong glass eyepieces.<sup>252</sup> It was available in two sizes, “Normal” to fit most men and some women, and “Small,” intended for most women and adolescents.<sup>253</sup> The rubber face piece allowed the respirator to be boiled in hot water for decontamination purposes, which was a vital property if a gas attack had occurred to ensure a sufficient supply of respirators and to save cost.<sup>254</sup> Some special face pieces were also made to allow the attachment of microphones, especially intended for telephone operators whose

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<sup>248</sup> TNA: HO 186/1487, Ministry of Home Security, *Respirators for Persons with Respiratory Troubles*, Memorandum No. 12/1940, June 14, 1940, 3.

<sup>249</sup> *ibid.*

<sup>250</sup> TNA: WO 188/394, *The Special Service Respirator*, January 13, 1936, 1.

<sup>251</sup> *ibid.*

<sup>252</sup> *ibid.*

<sup>253</sup> *ibid.*, 4.

<sup>254</sup> TNA: WO 188/394, *The Life of the Special Service Respirator Under Conditions of Use*, January 31, 1935, 1.

speech was too distorted by the normal CDR to be heard.<sup>255</sup> The Civilian Duty Respirator filter offered significantly improved protection, filtering, for instance, mustard gas at average concentrations for one week at six hours of use per day.<sup>256</sup> Against phosgene in high concentrations, however, the CDR offered only five minutes of protection, although, since phosgene was expected to dissipate in five to ten minutes, this was not considered a problem.<sup>257</sup> The cost, if produced by the government, was around six shillings.<sup>258</sup> In mid-1939 estimates for numbers of CDRs needed was over 1.3 million, with nearly half of that intended just for air raid wardens.<sup>259</sup> A year later the number needed for local authorities and civil defense had increased to over 2.3 million.<sup>260</sup> The CDR was issued to all civil defense workers who might be exposed to gas during the carrying out of their duties and who would need to be able to continue working even during a gas attack. This generally meant almost every civil defense worker was issued a CDR, particularly wardens, ambulance drivers, FAP staffs, Report Center staffs, stretcher bearers, and messengers.<sup>261</sup>

Some select civil defense workers received the Service Respirator. This gas mask, issued to the British armed forces, offered the best protection against poison gas. The

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<sup>255</sup> TNA: CAB 46/30, Committee of Imperial Defence, Air Raid Precautions Sub-Committee, *Minutes of Meeting, Comparison of Service and Special Service Respirators*, March 19, 1935, 1.

<sup>256</sup> TNA: WO 188/394, *The Life of the Special Service Respirator Under Conditions of Use*, January 31, 1935, 3.

<sup>257</sup> TNA: CAB 46/30, Committee of Imperial Defence, Air Raid Precautions Sub-Committee, *Minutes of Meeting, Comparison of Service and Special Service Respirators*, March 19, 1935, 1.

<sup>258</sup> TNA: WO 188/394, Committee of Imperial Defence, *Provision of Respirators for Civilians*, Minutes of Conference, June 12, 1934, 2.

<sup>259</sup> TNA: HO 186/1490, Treasury Inter-Service Committee, *Home Office Memorandum No. 8/1939, Supply of Service and Civilian Duty Respirators to Local Authorities and Industry*, April 25, 1939, 3.

<sup>260</sup> TNA: HO 186/1490, Treasury Inter-Service Committee, *Home Office Memorandum No. 13/1940, Containers for Civilian Duty Respirators*, June 18, 1940.

<sup>261</sup> *ibid.*

complete Service Respirator was made up of hand-moulded khaki-covered rubber face piece, two non-splinterable eyepieces, outlet valve, and adjustable head harness, anti-dim outfit, container, and haversack.<sup>262</sup> The respirator weighed a total of about four pounds, and weight reduction was one of the primary requests in the re-design of the mask.<sup>263</sup> The container of the Service mask was worn on the chest and connected to the face piece through a corrugated rubber tube, making the mask itself lighter to wear.<sup>264</sup> It was also fitted with a double face piece so arranged that the intake of air passed between the two layers and across the eyepieces, keeping the eyepieces from fogging up.<sup>265</sup> Its filter provided “an almost indefinite period” of protection against mustard gas and as long as forty minutes of protection against phosgene in a high concentration, significantly better than that offered by the CDR.<sup>266</sup> The most expensive of all of the masks, the Service Respirator cost 18 shillings, six times as much as the GCR.<sup>267</sup> This respirator was intended for those civil defense workers who might need to perform work in high concentrations of gas, such as firefighters and decontamination squads.<sup>268</sup>

Even the more sophisticated and expensive Service and Civilian Duty respirators were not free from problems and complaints. Requests for a means to automatically remove condensed moisture from the CDR face piece were not met and wearers were

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<sup>262</sup> S. Evelyn Thomas, *A Concise, Fully Illustrated and Practical Guide for the Householder and Air-Raid Warden*, 5th ed. (Preston: James Askew & Son Ltd., 1939), 23.

<sup>263</sup> TNA: WO 188/392, *Notes on Service Respirator Development Since June 1938*, May 16, 1940, 1-2.

<sup>264</sup> TNA: CAB 46/30, Committee of Imperial Defence, Air Raid Precautions Sub-Committee, *Minutes of Meeting, Comparison of Service and Special Service Respirators*, March 19, 1935, 1.

<sup>265</sup> *ibid.*

<sup>266</sup> *ibid.*

<sup>267</sup> TNA: CAB 46/30, Committee of Imperial Defence, Air Raid Precautions Sub-Committee, *Minutes of Meeting*, September 20, 1935, 2.

<sup>268</sup> TNA: HO 186/1490, Treasury Inter-Service Committee, *Home Office Memorandum No. 11/1939, Requirements of Service and Civilian Duty Respirators*, May 9, 1939, 2.

instead instructed to follow the official method of bending forward to allow accumulated moisture to pass out through the outlet valve.<sup>269</sup> On the Civilian Duty Respirator the rubber rib between the eye pieces pressed on the nose and sometimes caused significant discomfort.<sup>270</sup> The head harness sometimes slipped from position, undermining gas tightness.<sup>271</sup> In early trials, the Duty Respirator significantly interfered with speech, which was especially noticeable by telephonists.<sup>272</sup> Like with the Service Respirator, the Duty Respirator had a problem with condensation. In early trials water collected quickly inside the face piece and eventually ran down the outside of the wearer's neck and throat, a considerable concern especially in cold weather.<sup>273</sup> Constables on the Isle of Wight complained that the anti-dim compound on the eyepieces was faulty at night and lasted for no more than thirty minutes, finding that a raw potato smeared on the eyepieces instead was far more effective.<sup>274</sup> Unlike the General Civilian Respirator, however, the two special respirators did allow for the wearing of spectacles through the use of special frames that could fit under the face piece of the gas mask without undermining gas-tightness.<sup>275</sup> While the numbers of the CDR lagged behind expectation, production was especially behind in the case of haversacks to carry the respirator.<sup>276</sup>

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<sup>269</sup> TNA: WO 188/392, *Notes on Service Respirator Development Since June 1938*, May 16, 1940, 6.

<sup>270</sup> TNA: WO 188/394, *Trial of Respirator, Special Service Mark I*, n.d., 2.

<sup>271</sup> TNA: WO 188/394, *Report on Trials Carried out With the Special Service Respirator*, January 22, 1934, 2.

<sup>272</sup> *ibid.*

<sup>273</sup> TNA: WO 188/394, *Special Service Respirators Mark I, Report on Trials Carried Out At Portsmouth*, November 21, 1933, 1.

<sup>274</sup> TNA: WO 188/392, Chief Constable R.G.B. Spicer to Home Office, *Night Driving in Respirators*, July 15, 1939.

<sup>275</sup> TNA: WO 188/392, *Notes on an Informal Conference to discuss the administrative action in connection with the issue of a new design of spectacle frame for use with respirators*, February 28, 1938, 2.

<sup>276</sup> TNA: HO 186/1490, Director of Supply, *C.D. Respirators*, August 1940.

Despite these issues the CDR was a superior respirator to the GCR and civilians consistently tried to argue they needed it for the performance of their duties. The British Medical Association pressed the Home Office for an issue of CDRs to doctors on the ground on the basis that doctors may need to attend patients during an air raid.<sup>277</sup> The Home Office agreed on the basis of the doctors paying cost price for the CDR.<sup>278</sup> Members of the clergy, who often ministered to the injured and dying during air raids, also requested better equipment from the government, some complaining that equipment was being issued to “all and sundry,” except the clergy who performed such a vital service.<sup>279</sup> The Home Office eventually gave permission for clergy to purchase CDRs for those members specifically detailed by their church to aid casualties in the streets, at a price of seven shillings and six pence per respirator.<sup>280</sup> In some locations superior gas masks were simply stolen, as was the case in Newcastle where Service Respirators were taken from soldiers and depots and the local newspaper had to remind civilians that if they carried such a respirator in the street they would be stopped by police to be questioned.<sup>281</sup>

The British government’s gas mask program was one of the most comprehensive anti-gas protection measures in the world at the time. Every British man, woman, and child, whether or not they carried or cared about their masks, were issued with a free respirator that would serve as the primary protection in the case of a gas attack. The

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<sup>277</sup> TNA: HO 186/1490, Letter to G.D. Kirwan, July 20, 1940, 2.

<sup>278</sup> *ibid.*

<sup>279</sup> TNA: HO 186/64, East Greenwich Baptist Church to Home Secretary, September 19, 1939.

<sup>280</sup> TNA: HO 186/64, Letter by Arthur Dunnett, August 30, 1939; TNA: HO 186/64, Letter to T.B. Williamson, October 31, 1939.

<sup>281</sup> “Service Gas Masks Stolen,” *Newcastle Evening Chronicle*, March 6, 1941.

costly program was both a response to an anticipated gas attack that would wreak havoc on an unprotected population and the government's effort to forestall panic and revolt if masks were not available or only available to the rich. The gas mask also served as a visible reminder to the civil population of both the very threat of war and a possible gas attack, as well as a symbol of the government's effort to protect its civilians. While the overall response to the gas mask program and government instructions thereof were often underwhelming, the gas mask nevertheless was a potent symbol of the war and civil defense.

## Chapter 6 - “The Modern Troglodyte:” Sheltering Civilians from Air Raids

The damage that could be caused by aerial raids became apparent during the course of WWI, and it was clear to government officials and researchers that future raids with high-explosive (HE) or gas bombs would devastate the civilian population. The experience of soldiers on the Western Front had shown the usefulness of burrowing into the ground for protection and this concept influenced the development of shelter programs for the British civil population in the interwar period and leading up to WWII. While the limited raids on Britain during WWI did not necessitate the creation of special shelters, the expected intensity of future raids required that the government develop a shelter program to protect its civil population from bombs. In WWII this shelter program comprised an extensive collection of various types of shelters that sought to protect the vast majority of the British population. Ranging from structures for individual protection to communal deep shelters, the British air raid shelter program was a successful and vital aspect of civil defense that ensured the protection of civilian lives and the preservation of morale.

In WWI, there were generally no shelters made available by the government, and civilians improvised so as to find protection from air raids. The government’s official instructions told civilians to seek shelter in their homes, but many people in poorer neighborhoods, particularly the worst-hit East End, sought better shelter elsewhere.<sup>1</sup> The most obvious place to shelter for most was London’s Underground Railway, or the tube. After one false warning in 1917, people thronged the staircases and platforms to the point

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<sup>1</sup> TNA: HO 45/14650B, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Anti-Aircraft Precautions (Civilian), 1914-1918*, Part IV, 47.

where movement was almost impossible and railway staff were unable to cope.<sup>2</sup> Realizing it was impossible to keep shelterers out of their 90 stations, the railway company made arrangements with police to assist in regulating the incoming crowds.<sup>3</sup> So many people massed in the stairwells and on the platforms that it often impeded regular tube travel and conditions became deplorable, with many individuals and families camping in the stations all night.<sup>4</sup> At Shildon, in the county of Durham, a colliery drift was used as shelter by women and children, but conditions were considered to be too unsafe to allow the drift to remain open.<sup>5</sup>

In London, the primary target of raids, officials arranged for some protection. Police stations and government departments were allowed to be used as shelters by the public, with a placard exhibited outside reading “Air Raid Shelter” upon the issue of a warning.<sup>6</sup> While not bombproof, these shelters would provide protection from splinters and flying glass. These arrangements could accommodate around 900,000 people, but this still left many Londoners, particularly those in poorer districts, without shelter.<sup>7</sup> A special committee sought to find other possibilities for shelter and considered providing dugouts in the parks, but as these were thought to provide no better protection than the average house the idea was dismissed.<sup>8</sup> The LCC instructed its schools to prepare plans of action in case of an air raid. Children were to be kept indoors and away from the

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<sup>2</sup> *ibid.*

<sup>3</sup> *ibid.*, 48.

<sup>4</sup> *ibid.*

<sup>5</sup> *ibid.*, 55.

<sup>6</sup> *ibid.*, 49.

<sup>7</sup> *ibid.*

<sup>8</sup> *ibid.*, 50.



windows.<sup>9</sup> Under no circumstances was more than one department to be kept on one floor, to prevent mass casualties should a hit occur.<sup>10</sup> Issues arose when some parents, alerted by nearby warning sirens or police patrol, attempted to force their way into the school to remove their children before a raid and the London Education Department asked the police for help in keeping order outside of its schools.<sup>11</sup>

The damage to infrastructure and loss of life had been relatively limited in WWI raids, but it was clear that future raids with improved technologies would have a much more devastating effect. While in the interwar period the CID sought to find ways to protect civilians from poison gas, they were also asked to answer questions on how to protect the population from bombs. Various commissions sought the best type of protection while remaining fiscally feasible, and Porton Down conducted extensive experiments into the blast and splinter protection conferred by certain shelters and materials. Similar to the government's decision on gas masks, Britain's WWII shelter policy was driven by both concerns over cost and psychology.

The government decided early on that shelters would be required for the civil population. In 1924, the CID concluded that the Office of Works should prepare plans for the provision of public shelters.<sup>12</sup> While the interest lay primarily in protecting civilians from HE bombs, the CID also recommended that shelters provide protection against gas and that the Chemical Warfare Committee be involved in designing shelter plans.<sup>13</sup> In a

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<sup>9</sup> TNA: ED 24/2033, London County Council, *Precautions in view of the possibility of an Air Raid*, June 2, 1917.

<sup>10</sup> *ibid.*

<sup>11</sup> TNA: ED 24/2033, Letter by R. Blair, "Air Raids," June 15, 1917.

<sup>12</sup> TNA: HO 45/14650B, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Report*, July 8, 1925, 12.

<sup>13</sup> *ibid.*

1925 meeting to discuss the protection of civilians against gas the CID again determined that shelters ought to be provided at the outbreak of war.<sup>14</sup> The Chemical Warfare Committee included public shelters as one of the main components in protecting the civil population from poison gas.<sup>15</sup> In February 1939 a conference was convened, under the chairmanship of Lord Hailey, to advise on certain aspects of shelter policy. The resulting Hailey Report was to be the most influential on British shelter policy, the committee members having been charged by the Lord Privy Seal to advise him on air raid shelter policy.<sup>16</sup> One of the primary conclusions of the resulting report was that shelter ought to be accessible. The report argued that it was better to offer more widely-available shelter even if it offered less complete protection.<sup>17</sup> Since bomb-proofing shelters was not feasible, a communal or individual shelter needed to protect the population from splinters, blast, and falling debris.<sup>18</sup> The conference also determined that people could go no more than 300 yards by day and 150 yards by night to reach shelter after a warning sounded.<sup>19</sup> Surface shelters were more practical than tunnels because of the difficulty of tunneling in major cities, such as London, with their sewage, gas, and electricity lines.<sup>20</sup> The report also heavily advocated the protection of workers at their jobs, particularly because skilled laborers were an irreplaceable asset.<sup>21</sup>

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<sup>14</sup> TNA: HO 45/14650B, Committee of Imperial Defence, *Protection of Civil Population Against Gas Attack*, April 2, 1925, 2.

<sup>15</sup> TNA: HO 45/14650B, Chemical Warfare Committee, *Memorandum on the Protection of the Civil Population Against Gas Attack*, July 28, 1924, 10.

<sup>16</sup> TNA: HO 186/1213, *Shelter Policy*, n.d., 1; TNA: CAB 24/285, *Air Raid Shelters. Report of the Lord Privy Seal's Conference*, April 6, 1939, 3.

<sup>17</sup> *ibid*, 18.

<sup>18</sup> *ibid*.

<sup>19</sup> *ibid*, 12.

<sup>20</sup> *ibid*, 15-16.

Ultimately, the British government's shelter policy was to provide protection for all of its citizens, largely at government expense. The Civil Defence Act of 1937 authorized local authorities to build shelters for their civil population that would be eligible for grants from the government.<sup>22</sup> The grant payable to the local authority depended on its population, and ranged from 60 to 75% of the cost of the shelter.<sup>23</sup> A committee formed to address the air raid shelter problem recommended that to provide the necessary accommodations to the public the government ought to construct sectional steel shelters, propped basements, and pill-boxes, to strengthen lower floors of tenement houses, and the basements of shops, offices, and large houses, and construct communal shelters and trenches.<sup>24</sup> It was also recommended that no future residential building should be erected without the inclusion of an air raid shelter of a size to accommodate all inhabitants.<sup>25</sup> Many in the government preferred domestic-level protection over communal shelters, in part due to people being forced to leave their homes at all hours of the day to reach a neighborhood shelter, overcrowding risks, health risks, and potential chaos.<sup>26</sup> While the government accepted responsibility for protecting its citizens at home and in the street,

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<sup>21</sup> *ibid*, 20.

<sup>22</sup> Thomas Simey and Mary Williams, *The Civil Defence Acts 1937 and 1939* (London: Charles Knight & Co, 1939), xli.

<sup>23</sup> *ibid*, xlii.

<sup>24</sup> David Anderson, B.L. Hurst and Henry Japp, *Air Raid Shelter Policy* (London: HMSO, 1938), 8.

<sup>25</sup> David Anderson, B.L. Hurst and Henry Japp, *Air Raid Shelter Policy* (London: HMSO, 1938), 5.

<sup>26</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 836.

the responsibility for protecting civilians at work fell largely on the employer.<sup>27</sup> Local authorities were to be responsible for providing shelter for those who could not afford to provide it for themselves and for people caught out in the streets, using financial and material assistance provided by the government.<sup>28</sup>

Dispersal was considered one of the primary objectives of British shelter policy. The Hailey Report directly recommended a shelter policy of dispersal, arguing that mass catastrophes, as might happen if all occupants of a large shelter were killed, would have a far greater effect on the public mind than a similar number of isolated casualties.<sup>29</sup> The shelters, more than any other aspect of ARP, needed to follow the government's policy of dispersal and deep shelters ran particularly counter to this idea. A deep shelter, necessarily large to accommodate perhaps thousands of people, could also have potentially led to high numbers of casualties in the case they were not as bomb-proof as assumed.<sup>30</sup> One official worried that despite advice to disperse being given in a pamphlet, not enough people would follow it to ensure a "sufficiently wide dispersal of the population at night."<sup>31</sup> A communal shelter was to house no more than 50 persons in order to minimize casualties resulting from a direct hit.<sup>32</sup> Where this restriction was impossible due to available space, the maximum allowable number of persons in a shelter was 200, with strong dividing walls providing internal bulkheads to mitigate the

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<sup>27</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 838.

<sup>28</sup> TNA: HO 186/1213, *Shelter: Suggested lines of notification to Press representatives*, n.d., 1.

<sup>29</sup> TNA: CAB 24/285, *Air Raid Shelters. Report of the Lord Privy Seal's Conference*, April 6, 1939, 15.

<sup>30</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 840.

<sup>31</sup> TNA: HO 207/469, B. Barnes to J.H. Woods, "Bunks for Anderson Shelters," December 14, 1940, 1.

<sup>32</sup> Ministry of Home Security, *Provision of Air Raid Shelters in Basements* (London: HMSO, 1939), 2.

explosive consequences of a direct hit.<sup>33</sup> Part of the policy of dispersal was the concept of sheltering at home. Encouraging the public to shelter at home would prevent them from massing in other types of shelters where high numbers of casualties could occur. In a statement to the House of Commons, the Home Secretary pointed to the advantages of sheltering inside of the home, listing dispersal as the first point.<sup>34</sup> In an October 1940 speech Winston Churchill urged civilians not to shun small shelters in favor of larger ones, adding that “dispersal is the sovereign remedy against heavy casualties.”<sup>35</sup>

Sheltering at home also partially put the responsibility for civilian protection on the civilians themselves, removing some of the burden on the government. A 1941 pamphlet detailed civilians’ options for sheltering in their own homes, suggesting that wanting to remain at home was a natural inclination and a sound instinct.<sup>36</sup> The Ministry of Health, too, advocated for the use of domestic shelters, suggesting that the advantages in safety and health of the domestic over large public shelters be impressed upon the public at every opportunity.<sup>37</sup> What one official referred to as “the calamity risk” also led to the decision not to include nursery bays in large public shelters, fearing that an incident that at once injured or killed scores of babies and toddlers would be particularly detrimental to the morale of the public and parents.<sup>38</sup>

There were to be no deep shelters under British shelter policy. In accordance with conclusions drawn in the Hailey Report, the primary aim of shelters was the protection

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<sup>33</sup> *ibid.*

<sup>34</sup> TNA: HO 186/1213, Ministry of Home Security, “Text of Statement to be made by Minister in House of Commons tomorrow,” February 10, 1941, 1.

<sup>35</sup> TNA: HO 186/2232, Winston Churchill, *Draft of Speech*, October, 1940, 4.

<sup>36</sup> Ministry of Home Security, *Shelter at Home* (London: HMSO, 1941).

<sup>37</sup> Ministry of Health, *Air Raid Shelters, Notes on Principal Provisions* (London: HMSO, 1941), 4.

<sup>38</sup> TNA: HO 207/386, M.A. Creswick Atkinson, *Plan for Welfare in Shelters*, February 5, 1941, 2.

from falling debris, splinters, and blast. There were also some concerns that deep sheltering would negatively affect civilian psychology. Some worried that if deep shelters were provided only for a section of the population, such as for laborers engaged in work of national importance, it would have a detrimental effect on the psychology of the rest of the population.<sup>39</sup> Another argument was that once people were safe in their deep shelters they would refuse to come back out even after the danger had passed.<sup>40</sup> Crowd control at shelter entrances was also a concern.<sup>41</sup> Many worried that a shelter that was to house hundreds or thousands of people could cause massive crowds at entrances that might lead to panic and disaster.<sup>42</sup> After the outbreak of war, it also became clear that building deep shelters was physically impossible, as there was already such a shortage of materials, cement especially, that there was barely enough to build the needed surface shelters.<sup>43</sup> Some in the House of Lords, however, worried that if the government did not construct bomb-proof shelters prior to the outbreak of war, there would come a time when the demand from the public would be so high as to force compliance at a time when it was both dangerous and nearly impossible.<sup>44</sup> One Lord suggested that deep shelters could serve the dual purpose of car parks and could thus produce a substantial revenue, as well as bomb-proof protection.<sup>45</sup> Another Lord argued that deep-level shelters would provide great moral support to the civil population.<sup>46</sup>

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<sup>39</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 803.

<sup>40</sup> *ibid.*

<sup>41</sup> *ibid.*

<sup>42</sup> "Steel Shelters Test, J.B.S. Haldane's View," *News Chronicle*, February 14, 1939.

<sup>43</sup> TNA: HO 186/321, *Shelter - Note for the use of the Minister in his Editorial Conference*, n.d., 1.

<sup>44</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 802-804.

<sup>45</sup> *ibid.*, 805.

<sup>46</sup> *ibid.*, 816.

Deep shelters were also rejected because there was a general antipathy towards the idea of going underground. One Lord compared the idea of modern deep shelters to the cave dwellings of his Pictish ancestors, saying that “[t]he wheel has come full circle. We are back to barbarism [...]”<sup>47</sup> Others referred to deep-level shelters as “funk holes.”<sup>48</sup> The Lord Privy Seal, in a speech to the House of Commons, undermined the idea of deep shelters by arguing that Britain could not be asked to adapt its whole civilization to compel people to live and work “in a troglodyte existence deep underground.”<sup>49</sup> Another official wrote that regularly going deep underground would be fatal to the morale of those who did it.<sup>50</sup> If people were to use the few deep shelters the government had built, he added, it would be better to assign those “already infected than to infect 40,000 fresh ones.”<sup>51</sup> After London’s five deep shelters were opened to the public, the *Illustrated London News* wrote an article about the thousands of Londoners “now living the lives of troglodytes far underground [...]”<sup>52</sup> Lamenting the fact that many people had set up permanent residence in underground shelters, one reporter referred to them as troglodytes, admitting, however, that it was preferable to be “a live troglodyte than a dead householder.”<sup>53</sup>

Despite the issuing of gas masks to every civilian, officials nevertheless were concerned about poison gas entering shelters. One Lord considered that, unless some

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<sup>47</sup> *ibid.*, 807.

<sup>48</sup> TNA: HO 45/18226, House of Lords, “Air Raid Precaution Policy,” February 16, 1939, 803, 814.

<sup>49</sup> TNA: HO 45/18226, T.H., n.d., 1.

<sup>50</sup> TNA: HO 186/1763, *Memorandum*, July 1, 1944, 1.

<sup>51</sup> *ibid.*

<sup>52</sup> “Troglodytes of 1944: Some Aspects of Life in London’s Deep Shelters,” *Illustrated London News*, July 29, 1944.

<sup>53</sup> Carolus, “The Blessing that Might Become a Curse,” *Thanet Advertiser*, November 22, 1940.

provision was included to prevent gas from entering deep shelters, the results would be “too terrible to contemplate.”<sup>54</sup> The proposed car park deep-level shelters were to include an air filtration and drainage system to prevent gas from entering air vents or drains.<sup>55</sup> The Hailey Report had recommended no gas precautions for shelters, citing the issue of gas masks, although it was suggested that gas protection might be advisable in larger shelters.<sup>56</sup>

While the gas mask program had been sufficiently advanced to offer protection for most adults at the start of the September Crisis, the shelter program significantly lagged behind needs. Home Secretary Samuel Hoare wrote that while the government had gone far in providing gas protection they were “dangerously backward” in regard to protection against high explosives.<sup>57</sup> While at the start of the crisis the Home Office advised local authorities to hold off on digging trenches, just a few weeks later it instructed local authorities to take immediate steps to begin digging.<sup>58</sup> Trench shelters were to be dug in public parks, squares, and playgrounds. Even these preparations, however, were inadequate—across London the trench shelters were intended to accommodate just over 300,000.<sup>59</sup> Instructions to local authorities suggested trench shelters should accommodate 10% of their populations.<sup>60</sup> With no public shelters in place, the Home Office called on householders to dig shelter trenches in their backyards for protection. Unsurprisingly, this

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<sup>54</sup> TNA: HO 45/18226, House of Lords, “Air Raid Precaution Policy,” February 16, 1939, 823.

<sup>55</sup> *ibid*, 806.

<sup>56</sup> Office of the Lord Privy Seal, *Air Raid Shelters, Report of the Lord Privy Seal’s Conference* (London: HMSO, 1939), 7.

<sup>57</sup> TNA: HO 45/17590, Samuel Hoare to John Simon, October 26, 1938, 1.

<sup>58</sup> TNA: HO 45/17590, W. Eady to Clerk of County Council, September 24, 1938, 2.

<sup>59</sup> TNA: HO 45/17590, *Memorandum on Emergency Digging of Shelter Trenches*, September 1938, 3.

<sup>60</sup> TNA: HO 45/17590, W. Eady to Clerk of County Council, September 24, 1938, 2.



drew significant criticism, particularly from those who could not afford the materials.<sup>61</sup> While many of the hastily-built trenches were never completed, there were nevertheless questions on what to do with the existing trench shelters once the crisis passed. Members of the House of Lords called on the government to make a decision on the trench shelters, arguing that while they had offered temporary and makeshift protection, they still offered some value in more rural districts.<sup>62</sup> The Home Secretary suggested that the trenches ought to be completed, lined with concrete, and roofed.<sup>63</sup> Furthermore, realizing the lack of progress on the government's shelter program, he recommended making detailed preparations and surveys for trench systems in vulnerable areas, surveying buildings suitable for use as shelters, providing detailed recommendations for householders on digging trenches, and requiring workplaces to provide shelter accommodations for their employees.<sup>64</sup>

The criticisms of the government's poor shelter preparations were widespread. The Labour Party referred to the government's lack of air raid precautions and shelters during the crisis as a "criminal failure."<sup>65</sup> "Nowhere has the government muddle been greater," they wrote, "than in shelter policy."<sup>66</sup> The *News Chronicle* questioned the lack of street shelters, citing a recent air raid exercise in Chelsea that had shown the only available shelters were roped-off areas that offered no protection at all.<sup>67</sup> *The Evening News* criticized the lack of any progress report given by the government as to the production,

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<sup>61</sup> David Anderson, B.L. Hurst and Henry Japp, *Air Raid Shelter Policy* (London: HMSO, 1938), 4.

<sup>62</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 808.

<sup>63</sup> TNA: HO 45/17590, Samuel Hoare to John Simon, October 26, 1938, 1.

<sup>64</sup> *ibid*, 2-3.

<sup>65</sup> TNA: HO 45/17590, Labour Party, *A.R.P.: Evacuation and Shelter Policy*, December 20, 1939, 1.

<sup>66</sup> *ibid*, 5.

distribution, and fitting of shelters.<sup>68</sup> In order to address these criticisms the government now focused on providing a newly-produced domestic shelter to householders and to encourage local authorities to construct communal shelters.

Unlike other combatants, Britain sought to offer protection for many of its citizens within the vicinity of their own homes. Shelters that offered protection for just a few people were financially inferior to larger shelters, but smaller shelters fitted into the government's larger policy of dispersal. As bomb-proof shelters were not practical officials expected shelters to receive direct hits resulting in casualties. A direct hit on a family shelter would be a tragedy, but in the grander scheme would not greatly influence casualty statistics. A bomb falling on a communal shelter could cause hundreds of casualties and negatively affect morale. Additionally, a shelter in a family's home or backyard was more likely to be used and cause less disruption to sleep and schedule. Criticism over the government's lack of a shelter program after the September Crisis also meant that some type of shelter was needed to pacify public opinion. As a result the government sought to provide domestic protection to as many civilians as possible. The most prominent of these types of shelter was the Anderson shelter.

The Anderson shelter offered protection for families or small groups of people. Officially called the Galvanized Corrugated Steel Shelter, it derived its colloquial name from then-Home Secretary Sir John Anderson. The shelter consisted of several steel panels to be sunk partially into the ground and its rounded top piled with dirt. At six feet

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<sup>67</sup> "No One Knows," *News Chronicle*, July 5, 1939.

<sup>68</sup> "Some A.R.P. Questions," *Evening News and Evening Mail*, July 4, 1939.

tall and four by six feet wide, conditions inside the shelter could be relatively cramped.<sup>69</sup> Erection of the shelter required the digging of a hole to the depth of four feet into which the shelter would be sunk.<sup>70</sup> A minimum of 15 inches of earth on top of the shelter was needed to provide adequate protection and hold the shelter in place.<sup>71</sup> The shelter was intended for cottage-type houses on modern building estates with ample garden space and two-storied terrace types of houses with backyards, both of which were unsound or flimsy in nature and could not be properly strengthened in other ways.<sup>72</sup> Some Anderson shelters were erected indoors, although this was very rare as the requirements of an emergency escape, space, and lateral protection could not be met by most dwellings.<sup>73</sup> While the Home Office provided detailed instructions and encouraged householders to erect their own shelters, many were erected by the local authorities.<sup>74</sup> Issue of the first Anderson shelters began in February 1939 and within six months of the start of production, over 800,000 shelters had been distributed to householders and local authorities.<sup>75</sup> Not every family, however, received their own shelter and on average two Anderson shelters were shared by less than three families.<sup>76</sup>

The government heavily subsidized the distribution and erection of the Anderson shelter. A 1938 report on the air raid shelter problem determined that the sectional steel

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<sup>69</sup> Home Office, *Directions for the Erection and Sinking of the Galvanised Corrugated Steel Shelter* (London: HMSO, 1939), 2.

<sup>70</sup> *ibid*, 3.

<sup>71</sup> *ibid*, 5.

<sup>72</sup> David Anderson, B.L. Hurst and Henry Japp, *Air Raid Shelter Policy* (London: HMSO, 1938), 4.

<sup>73</sup> TNA: HO 197/23, Deputy Chief Engineer, *Anderson Shelters in Houses*, January 31, 1941, 1.

<sup>74</sup> Home Office, *Directions for the Erection and Sinking of the Galvanised Corrugated Steel Shelter* (London: HMSO, 1939), 3.

<sup>75</sup> TNA: HO 186/1213, Press Officer Lord Privy Seal, *The Air-Raid Shelter Programme of the Government*, July 1939, 1; TNA: HO 186/1213, *Shelter Policy*, n.d., 3.

shelter was the best solution to provide shelter, and in light of the criticism experienced during the 1938 crisis, that such shelters needed to be supplied by the government.<sup>77</sup> The report concluded, however, that the Anderson shelter should satisfy public opinion.<sup>78</sup> In mid-1939 approximately £20 million had been set aside by the government to provide the shelter to householders.<sup>79</sup> The Anderson shelter was provided free to all who were compulsorily insured under the National Health Insurance Act, or, for those not so insured, to householders earning less than £250 per year (increased by £50 for each school-aged child in excess of two).<sup>80</sup> Where the local authority erected Anderson shelters for the householders, their expenses were partially reimbursed by the government.<sup>81</sup> For those whose income disqualified them from receiving a free shelter, the government made the materials available for purchase at cost.<sup>82</sup> Most local authorities found that there was a low demand for the purchase of shelters, so Birmingham, for instance, had just 150 inquiries, partially because by the time shelters were available for purchase most householders had made other arrangements.<sup>83</sup>

As had been the case with respirators, supplies of Anderson shelters did not always meet demand at the outbreak of war. In one region just over 10% of local authorities had received the promised Anderson shelters by early September 1939.<sup>84</sup> The Home Office

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<sup>76</sup> TNA: HO 186/1213, Henry Durant to S.C. Leslie, October 6, 1942.

<sup>77</sup> David Anderson, B.L. Hurst and Henry Japp, *Air Raid Shelter Policy* (London: HMSO, 1938), 1-4.

<sup>78</sup> *ibid.*, 4.

<sup>79</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 802.

<sup>80</sup> TNA: HO 186/1213, *Shelter Policy*, n.d., 2.

<sup>81</sup> *ibid.*

<sup>82</sup> *ibid.*

<sup>83</sup> "Anderson Shelters. Only 150 Purchasers in Birmingham," *Birmingham Mail*, November 7, 1939.

<sup>84</sup> TNA: HO 205/89, Regional Technical Adviser to Senior Regional Officer, "Domestic Shelters," September 5, 1938.

was also greatly displeased to find that many people who had been issued free shelters had failed to put them up and considered making it a penal offense to fail to erect the Anderson shelter within ten days.<sup>85</sup> Those wishing to purchase the shelter had to wait until shelters had been issued to everyone who qualified for a free one, causing some anxiety.<sup>86</sup>

The Anderson shelter may not have been proof to a direct hit, but it offered significant protection for many British civilians. Prior to the distribution of the shelters, one member of the House of Lords worried that as soon as a few civilians were killed in their Anderson shelters the public at large would refuse to continue to use them.<sup>87</sup> Tests showed that occupants in a correctly-erected Anderson shelter were safe from a 500 lb. bomb at 30 feet.<sup>88</sup> J.B.S. Haldane, who observed the tests, concluded that the shelter was by far better than anything the ARP department had done previously and that it provided better protection than sheltering inside a house.<sup>89</sup> One official suggested sending an information leaflet with each shelter, explaining the tests to which it had been subjected, to improve public confidence in its efficacy.<sup>90</sup> The public was less convinced of the safety of the Anderson shelter, however. The shelters' shape and seemingly dubious efficacy led some to label them as "steel mousetraps."<sup>91</sup> Others referred to the shelters as "dog-kennels."<sup>92</sup> The volume of correspondence received by the Public Relations Department

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<sup>85</sup> TNA: HO 205/14, *Extract from Conclusions of a Meeting of the War Cabinet*, May 25, 1940.

<sup>86</sup> "Purchasers of Anderson Shelters Must Wait," *Evening Despatch*, September 12, 1939.

<sup>87</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 802.

<sup>88</sup> TNA: HO 191/18, Ministry of Home Security, *Anderson Shelters Experimental Data*, n.d.

<sup>89</sup> "Steel Shelters Test, J.B.S. Haldane's View," *News Chronicle*, February 14, 1939.

<sup>90</sup> TNA: HO 186/1213, , Mr. Hillier to Mr. Crutchley, May 18, 1939.

<sup>91</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 808.

<sup>92</sup> TNA: HO 186/1213, Letter to Mr. Osmond, May 24, 1939.

made it clear the public was very uneasy about their new shelters.<sup>93</sup> In Shoreditch, only a quarter of those who had an Anderson shelter available used it for shelter, the rest seeking protection in the larger public shelters.<sup>94</sup> A 1942 poll found that at least four percent of people were not intending to use their Anderson shelter in the event of a raid, although those most skeptical of future raids occurring were also less likely to use their shelter.<sup>95</sup> Six percent of householders had failed to use their Anderson shelter in past raids.<sup>96</sup> Some skepticism was due to reports or personal knowledge of people having been killed inside their Anderson shelters and government officials discussed how to convince civilians of the efficacy of the shelter.<sup>97</sup> One official suggested collecting examples where the shelters had withstood air raids to be used as “propaganda for the use of Andersons in the East End and elsewhere.”<sup>98</sup>

There were also consistent complaints and problems with the Anderson shelter. Made from sides of steel and covered partially with dirt the Anderson shelter was particularly uncomfortable in wintertime. The walls were highly thermo-conductive and thus very cold to lie against in winter, which also led to excessive condensation on the walls enough to soak clothes or bedding coming into contact with them.<sup>99</sup> The unscreened opening of the shelter also allowed cold air to penetrate, significantly lowering the

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<sup>93</sup> TNA: HO 186/1213, E.T. Crutchley to P.M. Osmond, June 21, 1939, 1.

<sup>94</sup> TNA: HO 207/359, *Report on visit of Alderman Key, Regional Commissioner, to Shoreditch*, June 25, 1941, 1.

<sup>95</sup> TNA: HO 186/1213, Henry Durant to S.C. Leslie, October 13, 1942.

<sup>96</sup> *ibid.*

<sup>97</sup> *ibid.*

<sup>98</sup> TNA: HO 207/363, *Extract from Tour Diary for week ending October 13th of Mr. Cotterill, Regional Officer*, October 17, 1940.

<sup>99</sup> TNA: HO 196/6, Ministry of Home Security, *Notes on Improving Habitability of Anderson Shelters in Winter*, October 8, 1940, 1.

temperature inside.<sup>100</sup> Many people had little knowledge of the official requirements for the earth covering of their shelter, exposing themselves to danger.<sup>101</sup> Some people had installed oil stoves or suspended car batteries and water bottles from the ceiling, creating potentially hazardous conditions.<sup>102</sup> Perhaps the biggest issue with the shelter was flooding. Damp arose from water seeping from the subsoil or flowing into the shelter from the entrance, sometimes enough to cover the shelter floor.<sup>103</sup> In many areas with high water tables or poor drainage, water leaked into the shelters, in some cases making them unusable.<sup>104</sup> An official investigation found that most civil defense regions had some flooding of their Anderson shelters, with the proportion of flooded shelters ranging from 24 to 42 percent.<sup>105</sup>

The MHS sought to address some of the issues through improvements to the shelter. Householders were issued a pamphlet with instructions on improving the conditions inside the Anderson shelter during the winter.<sup>106</sup> For personal comfort MHS suggested bringing hot drinks for consumption and using hot water bottles or bricks inside the bedding for warmth.<sup>107</sup> Hanging a blanket over the shelter entrance would prevent cold air from entering.<sup>108</sup> The public was warned, however, not to use oxygen-consuming

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<sup>100</sup> *ibid.*

<sup>101</sup> TNA: HO 197/23, R.G. Woolford, *Being further remarks to my report of September 29th*, October 11, 1940, 1.

<sup>102</sup> *ibid.*

<sup>103</sup> TNA: HO 196/6, Ministry of Home Security, *Notes on Improving Habitability of Anderson Shelters in Winter*, October 8, 1940, 1.

<sup>104</sup> TNA: HO 197/23, *Flooded Anderson Shelters*, February 28, 1941.

<sup>105</sup> *ibid.*, 1.

<sup>106</sup> Ministry of Home Security, *Your Anderson Shelter this Winter* (London: HMSO, 1940).

<sup>107</sup> TNA: HO 196/6, Ministry of Home Security, *Notes on Improving Habitability of Anderson Shelters in Winter*, October 8, 1940, 1.

<sup>108</sup> *ibid.*

heating appliances, such as lamps or oil stoves, inside the shelters for risk of suffocation.<sup>109</sup> Newspapers reiterated the information given by the Home Office to distribute the information on how to make the shelter more comfortable to an even wider audience.<sup>110</sup> Such articles particularly focused on how to improvise sleeping arrangements and how to keep warm while spending the night in the shelter.<sup>111</sup> To address the problem of flooding, most local authorities decided to concrete and seal the pit the shelter was sunk into. Four inches of thick concrete lining was found to waterproof the Anderson shelter even in areas with very wet sub soil and could be accomplished at a cost of just over £3 per shelter.<sup>112</sup> Despite efforts to waterproof the shelters, just two years later a poll found 15% of householders complaining about damp or wetness in their Anderson shelters.<sup>113</sup> While concreting the shelter pit was the primary solution, some local authorities in areas with wet subsoil simply instructed their householders to erect the Anderson shelter indoors.<sup>114</sup> Initially, an official report opposed the construction of Anderson shelters inside the home because of space, limited protection against shrapnel, the danger of the collapse of the shelter should the house collapse, and debris trapping the occupants.<sup>115</sup> Several local authorities reported satisfaction among the public with their now dry and warm shelters, particularly in areas that had previously suffered extreme

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<sup>109</sup> *ibid.*

<sup>110</sup> “Winter Comfort in Anderson Shelters,” *Middlesex Chronicle*, January 4, 1941; “What do I do to keep my Anderson shelter healthy in winter?” *Chelmsford Chronicle*, November 25, 1940; “Anderson Shelter Comfort,” *Wallsall Observer and South Staffordshire Chronicle*, December 28, 1940.

<sup>111</sup> “Winter Comfort in Anderson Shelters,” *Middlesex Chronicle*, January 4, 1941.

<sup>112</sup> TNA: HO 197/23, Deputy Chief Engineer, *Anderson Shelters*, December 29, 1939, 1; Deputy Chief Engineer to Mr. Jemmet, “Anderson Shelters,” January 5, 1940, 1.

<sup>113</sup> TNA: HO 186/1213, Henry Durant to S.C. Leslie, October 13, 1942.

<sup>114</sup> TNA: HO 197/23, Hailsham Rural District Council, *Anderson Shelters*, March 4, 1941.

<sup>115</sup> David Anderson, B.L. Hurst and Henry Japp, *Air Raid Shelter Policy* (London: HMSO, 1938), 3.



wetness.<sup>116</sup> Erecting the shelter indoors, however, incurred significant extra costs at over £5 per shelter, due to the need for extra protection and strutting.<sup>117</sup>

The increased duration of air raids also came to alter the purpose of the shelter. Initially it was thought that the Anderson shelter, in close proximity to one's home, would allow civilians to seek protection at the sound of the air raid siren and then return to normal life once the raid was over. While in early raids people spent a few hours in their shelters they eventually waited out the raids for the entire night, never returning to their beds.<sup>118</sup> Once it became clear that people were preferring to sleep all night in a shelter rather than be roused constantly by air raid sirens, the Home Office realized the need to provide some type of sleeping arrangements. To draw people away from the large public shelters, where people had been spending their nights, the Home Office decided to issue bunks for the Anderson shelter.<sup>119</sup> The bunks came in two sizes, adult and child, and up to four adult and one child's bunk would be supplied free of charge to householders who had qualified for a free Anderson shelter.<sup>120</sup> In the small space of the Anderson shelter the bunks were fitted with two six foot adult bunks on the floor along the sides of the shelter, another two adult bunks mounted above those and a shorter, but wider, child bunk transversed the adult bunks at the closed end of the shelter, creating very cramped conditions.<sup>121</sup> Some balked at the cost of providing free bunks, at over £2 per set, and

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<sup>116</sup> TNA: HO 197/23, Regional Technical Adviser, *Minute Sheet*, May 28, 1941.

<sup>117</sup> TNA: HO 197/23, Chief Engineer, *Erection of Anderson Shelters indoors in the London Region*, August 1943, 1.

<sup>118</sup> TNA: HO 197/23, R.G. Woolford to Talks Department BBC, August 30, 1940, 1.

<sup>119</sup> TNA: HO 207/469, London Region Circular No. 303, *Provision of Bunks in Anderson Shelters*, February 17, 1941, 1.

<sup>120</sup> *ibid.*

<sup>121</sup> TNA: HO 207/469, Ministry of Works and Buildings, *Instructions for Fitting Bunks in Anderson Shelters*, n.d.

suggested instead householders should be encouraged to find their own way to make the Anderson shelter suitable for sleeping in.<sup>122</sup> Some local authorities found, however, that those shelters that had been concreted against flooding could not properly fit the bunks and adjustments were required to thousands of bunks to fit them into the shelters.<sup>123</sup>

The Anderson shelter offered good protection to many civilians, but a few months into the war the government shifted its attention to a new type of domestic shelter. By December 1940 it was decided that there should be a shelter that could be placed indoors and that could be built with existing materials. Steel shortages made the production of more Anderson shelters impossible and the requirement for a backyard or large-enough space to construct the shelter meant many families went without one. The cheaper and more practical solution was a shelter that used less steel and could fit into existing spaces of a family's home. The result was the Morrison shelter.

The Morrison shelter offered protection in a more practical manner. Named after then-Home Secretary Herbert Morrison, the shelter was also referred to as the steel indoor shelter and the table shelter.<sup>124</sup> It consisted of a strong frame, a flat top made of steel, an attached spring mattress forming the floor, and mesh sides to prevent the entering of debris or shrapnel.<sup>125</sup> Its flat top allowed the shelter to be used as a table during the day and it could be moved after construction, thus being much less cumbersome indoors than an Anderson shelter. To allow shelterers to escape if the house collapsed, the Morrison shelter was to be placed in the middle of a room, with open space

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<sup>122</sup> TNA: HO 207/469, J.H. Woods to B. Barnes, December 5, 1940.

<sup>123</sup> TNA: HO 207/469, J. Rasch to Mr. Pankhurst, "Anderson Shelter Bunks," February 20, 1941.

<sup>124</sup> Ministry of Home Security, *Shelter at Home* (London: HMSO, 1941), 10.

<sup>125</sup> *ibid.*

on all sides.<sup>126</sup> Along with the materials, recipients of the shelter were also given instructions on how to put it together. The pamphlet *How to put up your Morrison "Table" Shelter* offered illustrated instructions in seven steps, as well as information how to use the shelter as a table.<sup>127</sup> While construction of the shelter was said to be easy, and in some local areas boy scouts had been recruited to build them, one official worried that without special staff to complete the work it would lead to badly erected shelters and future trouble and expense.<sup>128</sup> The Morrison shelter also solved the problem of outdoor sheltering in areas with wet subsoil. Government engineers specifically instructed local authorities to provide one or two Morrison shelters to householders instead of erecting an Anderson shelter indoors in those areas where flooding was common.<sup>129</sup> The Morrison shelter was also offered to householders whose Anderson shelter had already flooded, but where no steps had been taken to remedy the problem.<sup>130</sup> By 1942 a two-tier Morrison shelter had come into production, intended for families with two adults and more than two children.<sup>131</sup> This larger shelter was over four feet tall, allowing for two mattresses to be placed inside and thus offering protection for twice the number of people.<sup>132</sup>

Capable of withstanding significant weight, the Morrison shelter certainly saved lives after its introduction. The CDRD conducted several experiments to test the weight-bearing capacity of the Morrison shelter, finding that the shelter was capable of holding

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<sup>126</sup> *ibid*, 12.

<sup>127</sup> TNA: HO 186/580, *How to put up your Morrison "Table" Shelter*, April 1941.

<sup>128</sup> TNA: HO 186/2244, Regional Shelter Officers Conference, *Minutes of Meeting*, April 22, 1941, 5.

<sup>129</sup> TNA: HO 197/23, Chief Engineer, *Anderson Shelters Erected Indoors*, n.d., 1.

<sup>130</sup> TNA: HO 205/218, Ministry of Home Security, *Substitution of Morrison Indoor Shelters for Waterlogged Anderson Shelters*, November 12, 1941, 1.

<sup>131</sup> "Two-Tier Morrison Shelter," *Liverpool Evening Express*, March 27, 1942.

<sup>132</sup> *ibid*.

up a collapsed floor.<sup>133</sup> There were repeated reports of Morrison shelters saving their occupants whose houses had collapsed and trapped them under heavy debris.<sup>134</sup> Demand for the shelter was high, amounting to as many as 5,000 requests per day in London by mid-1944.<sup>135</sup> The commencement of the flying bomb attacks also led to a higher demand for Morrison shelters, and the government ordered more shelters and expanded eligibility as a result.<sup>136</sup> Shelters were also collected from other parts of the country to be issued to Londoners and, particularly, to those living in the corridor that made up the likely path of the flying bombs.<sup>137</sup>

Like the Anderson shelter, the government also subsidized the Morrison shelter. Shortly after its introduction, with sales and demand lagging, one official suggested that this was due to people waiting to see if the income limit for free provision of shelter would be raised.<sup>138</sup> Qualifications for free issue of the Morrison shelter were similar to that of the Anderson shelter, but the Home Office, with the consent of the Exchequer, raised the annual income limit to £350.<sup>139</sup> Anyone who had already been issued an Anderson shelter, however, or who had a share in a nearby communal surface shelter, was not eligible to receive a Morrison shelter, unless they wished to purchase it.<sup>140</sup> Preference

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<sup>133</sup> TNA: HO 195/10, Civil Defence Research Committee, *The Design and Testing of the Table (Morrison) Indoor Shelter*, May 1941, 7-12.

<sup>134</sup> "Saved by Morrison Shelter," *Birmingham Mail*, July 9, 1941; "Withstands Weight of House," *Belfast News-Letter*, June 5, 1941.

<sup>135</sup> TNA: HO 186/1763, Memo from Parliamentary Secretary to Minister, *Opening of Deep Tube Shelters*, July 4, 1944, 1.

<sup>136</sup> TNA: HO 186/1763, *Development in Shelter Policy Since 1940-41 Blitz*, n.d., 5.

<sup>137</sup> *ibid.*

<sup>138</sup> TNA: HO 186/2244, Regional Shelter Officers Conference, *Minutes of Meeting*, April 22, 1941, 5.

<sup>139</sup> TNA: HO 186/1213, Ministry of Home Security, "Text of Statement to be made by Minister in House of Commons tomorrow," February 10, 1941, 2.

<sup>140</sup> *ibid.*

in distribution was given to those civilians who had no reasonable shelter of any kind available to them.<sup>141</sup> The purchase price of the Morrison shelter was reduced by mid-1941 from nearly £8 to £7.<sup>142</sup> By October 1943, one million table shelters had been produced.<sup>143</sup>

Both of the domestic shelters offered good protection in a convenient manner and while the government ensured that even the poor had access to them there were still families without the space to erect either shelter. Poor and crowded neighborhoods and particularly those in an urban environment often did not have a yard to install an Anderson shelter or the space in the house for a Morrison shelter. The solution had to be some type of communal shelter, yet a type not so big as to cause massive casualties in the event of a direct hit. Communal shelters were built by the local authorities and could take one of several forms, but most common were surface brick shelters and trench shelters.

In many communities the surface brick shelter offered protection for several families. Such shelters were made of brickwork, mass concrete, or concrete block masonry with a reinforced concrete roof and a concrete floor.<sup>144</sup> The standard design allowed room for six persons, but this could be extended for up to twelve.<sup>145</sup> Communal surface shelters were sometimes the solution to a lack of Anderson shelters. Regions where the delivery of Anderson shelters had fallen short of need often asked permission

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<sup>141</sup> *ibid.*

<sup>142</sup> "Withstands Weight of House," *Belfast News-Letter*, June 5, 1941.

<sup>143</sup> TNA: HO 186/1763, *Development in Shelter Policy Since 1940-41 Blitz*, n.d., 3.

<sup>144</sup> Ministry of Home Security, *Directions for the Erection of Domestic Surface Shelters* (London: HMSO, 1939), 1.

<sup>145</sup> *ibid.*

to build surface shelters instead.<sup>146</sup> Persons entitled to a free Anderson shelter who lived in areas in danger of flooding or who lacked the space to erect the steel shelter, were generally provided with a surface brick shelter by the local authority.<sup>147</sup> By 1941 there were also some safety concerns about the surface shelters built early on. Earth shock or blast had, in some instances, caused failure of the surface shelters and vulnerable shelters were strengthened by the adding reinforced concrete to the existing brickwork.<sup>148</sup>

The Home Office began an education campaign to encourage civilians to make use of their local shelter. In 1941, a meeting involving several departments of civil defense was called specifically to discuss how to extend the use of public shelters.<sup>149</sup> Members present suggested that the Home Office begin a campaign to convince the public that the surface shelters provided a high degree of safety, although they recommended waiting to begin the campaign until all faulty shelters had been closed.<sup>150</sup> The factual information on surface shelters was to be disseminated via newspaper articles, broadcasts, short films, posters, and the wardens.<sup>151</sup> While officials recognized that many people went underground simply to get away from the noise of the air raids, they also claimed people could be dissuaded from doing so.<sup>152</sup> Surface shelters, civilians were to be told, would allow children to be put to bed at a normal hour and cause less disruption to family life

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<sup>146</sup> TNA: HO 205/89, Regional Technical Adviser to Senior Regional Officer, "Domestic Shelters," September 5, 1938.

<sup>147</sup> TNA: HO 186/1213, *Shelter Policy*, n.d., 3.

<sup>148</sup> TNA: HO 191/128, Ministry of Home Security Chief Engineer's Branch, *Strengthening of Brick and Concrete Surface Shelters*, July 26, 1941, 1.

<sup>149</sup> TNA: HO 186/2244, *Meeting on Shelter Policy*, April 7, 1941, 1.

<sup>150</sup> *ibid.*

<sup>151</sup> *ibid.*

<sup>152</sup> TNA: HO 186/2244, *Appendix to Meeting on Shelter Policy*, April 7, 1941, 1.

and sleep times.<sup>153</sup> It was also suggested to have an exhibition of a small-scale fully-equipped surface shelter near the Town Hall or some other well-visited locale, with a warden nearby to offer information and advice.<sup>154</sup> The Home Office was aware that it required concrete proof of the safety provided by the surface shelters to convince people to use them.<sup>155</sup> One suggestion was to have experts say that they had overestimated the dangers of blast and splinter, against which the surface shelter offered less protection, and had underestimated the dangers from flying glass and debris, against which the surface shelter provided good protection.<sup>156</sup> To prove convincingly the superiority of the surface shelter over one's own home, a poster campaign was started showing surface shelters standing intact besides demolished houses.<sup>157</sup> The Home Office also collected information from its civil defense regions on how the shelters stood up to air raids. A report from Region 7 lists the incidents of surface shelters that survived nearby explosions, although an aside mentions that there were other incidents where such shelters were badly damaged but that the information was not included because the Home Office was not interested in it.<sup>158</sup> While some officials worried that putting up posters in areas that had yet to be raided would lower morale, others argued that it was the perfect time to educate people regarding the shelters as they were now more receptive to the idea after disaster had struck other areas.<sup>159</sup> In some areas, surface shelters were being

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<sup>153</sup> *ibid.*

<sup>154</sup> *ibid.*

<sup>155</sup> TNA: HO 186/2244, Home Planning Committee, *Campaign to Popularise Surface Shelters*, April 21, 1941, 1.

<sup>156</sup> *ibid.*

<sup>157</sup> *ibid.*

<sup>158</sup> TNA: HO 186/2244, *Report by Mr. E.B. Hillier*, April 18, 1941.

<sup>159</sup> TNA: HO 186/2244, Mr. Hutchinson to J.P. McNulty, "Surface Shelter Posters," May 14, 1942.

frequently used by firefighting parties, which proved to have a positive effect on the opinion of the rest of the population.<sup>160</sup> Suggestions for increasing interest in surface shelters also included adding bunks, heaters, and a bay for smokers, with signs posted outside to inform people of these amenities.<sup>161</sup>

A second aspect of the education campaign was to convince civilians to take a personal stake in their public shelter. Not owned by any one person or family the surface shelters were often in poor condition. Some officials believed that the public's reluctance to use the surface shelters often stemmed as much, if not more, from a lack of amenities than anxiety over their safety.<sup>162</sup> The 1941 meeting on shelter policy recommended to educate the public in how to make public surface shelters "pleasant and homelike [...]".<sup>163</sup> They also suggested fully equipping one shelter in each neighborhood and telling other civilians their shelter could be similarly equipped if they were to use and take care of it.<sup>164</sup> Such equipment usually included a door, with the key being given to one family, and whitewashing the interior walls.<sup>165</sup> In some surface shelters, bunks were installed, but since these shelters were not always of uniform size, fitting bunks was left to the local authority.<sup>166</sup> Comfort, appearance, and amenities were deemed essential for the surface shelters if the government wanted to prevent a mass exodus from them into

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<sup>160</sup> TNA: HO 207/386, *Occupation and Popularisation of Street Communal Domestic Shelters*, September 10, 1941, 3.

<sup>161</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 7.

<sup>162</sup> TNA: HO 186/2244, Miss Wilkinson, October 2, 1941.

<sup>163</sup> TNA: HO 186/2244, *Meeting on Shelter Policy*, April 7, 1941, 2.

<sup>164</sup> TNA: HO 186/2244, *Appendix to Meeting on Shelter Policy*, April 7, 1941, 1.

<sup>165</sup> *ibid.*

<sup>166</sup> TNA: HO 207/469, Ministry of Health, Circular P.R.O. 37/1941, *Bunks in Domestic Shelters*, August 11, 1941, 1.



deep shelters.<sup>167</sup> Officials believed that if surface shelters were fitted with proper, non-slatted doors and a key given to the family intending to use it, a sense of proprietorship would result that would see the shelter being used and cared for regularly.<sup>168</sup>

Trench shelters were less sophisticated and were often intended as an emergency shelter for those caught out in the streets. Such shelters were the responsibility of the local authority and were often built near nodal points where people congregated.<sup>169</sup> Many of those in existence at the start of war had been hastily built during the September Crisis to unexact standards and some were left unfinished. By the end of 1938 the Home Office issued official instructions for the construction and permanent lining of trenches to ensure uniformity and proper protection.<sup>170</sup>

Trench shelters were often uncomfortable and lacked the amenities that drove people to the larger public shelters. One official report admitted that comfort in the trench shelters was “not easy to obtain.”<sup>171</sup> The space was usually cramped and limited, with bad lighting that did not allow for reading.<sup>172</sup> The nature of trench shelters meant that drafts were common and these contributed to the uncomfortable conditions, particularly during the winter months.<sup>173</sup> Suggestions for improving these conditions included installing better lighting, providing doors or curtains to prevent drafts, and, where possible, having some type of mobile canteen arrangement.<sup>174</sup>

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<sup>167</sup> TNA: HO 186/1213, Meeting on Shelter Policy, April 7, 1941, 1.

<sup>168</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 7.

<sup>169</sup> TNA: HO 186/1213, *Shelter Policy*, n.d., 4.

<sup>170</sup> Home Office, *Specifications, Etc, In Regard to Permanent Lining of Trenches* (London: HMSO, 1938).

<sup>171</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 7.

<sup>172</sup> *ibid.*

<sup>173</sup> *ibid.*

<sup>174</sup> *ibid.*

While trench and brick shelters were most common, communal shelters also took other forms. In the LCC's Council Estates, often lacking the space for a brick surface shelter but requiring shelter for hundreds of people, one solution was to convert the ground floor apartments into air raid shelters.<sup>175</sup> Initially this was done by using steel struts, but when steel became scarce brick supports were used instead.<sup>176</sup> Many housing estates were outfitted with semi-sunk shelters in the courtyards, although this was only an option in areas where they were not likely to flood.<sup>177</sup> In larger public and private buildings the best solution for protection was often the basement. To offer good protection such basements were required to be strutted and strengthened, as well as outfitted with certain amenities according to Home Office guidelines.<sup>178</sup> In some boroughs shelterers sought refuge in church crypts.<sup>179</sup> In St. James's Church in the Borough of Paddington the crypt shelter was outfitted with amenities such as electricity, bunks, fans, and chemical closets.<sup>180</sup> In one town, civilians could lease shelter space in a former chamber of horrors entertainment venue, complete with the severed head of Charles I, for a price of five to ten shillings.<sup>181</sup> Government departments often had their

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<sup>175</sup> LMA: CL/CD/1/170, K.B. Paice to Clerk of London County Council, May 6, 1940.

<sup>176</sup> LMA: CL/CD/1/170, *Strutted Tenement Air Raid Shelters*, 1940.

<sup>177</sup> LMA: CL/CD/1/170, *Air Raid Shelter at L.C.C. Housing Estates*, December 31, 1940, 1.

<sup>178</sup> Ministry of Home Security, *Provision of Air Raid Shelters in Basements* (London: HMSO, 1939).

<sup>179</sup> LMA: P93/PAU3/78-80

<sup>180</sup> LMA: P87/JS/143/01, Borough Engineer to Reverend G.T. Chappell, July 16, 1943.

<sup>181</sup> "Horror Chamber is 2'6 Shelter," *Daily Herald*, April 3, 1941.

own sophisticated shelters, which they were reluctant to share with the population. When it was suggested civilians might use the Ministry of Labour shelter during nighttime, when the shelter was empty, the Ministry refused, claiming that their own staff or another department's staff might still need the shelter.<sup>182</sup>

There were some efforts to gas-proof the various communal shelters, but these were mostly unsuccessful. By mid-1940 there were some efforts to outfit public shelters with gas curtains, treated fabric that could be dropped to cover doorways of shelters to prevent the penetration of gas. In a Home Security circular, the MHS urged local authorities to provide these curtains and render public shelters gas-proof.<sup>183</sup> This presented various concerns, however, and some local authorities refused to comply. The associated cost and amount of labor and materials required made provisioning all public shelters with gas curtains difficult.<sup>184</sup> Respirators were to be the primary protection against gas and providing gas curtains might undermine public confidence in their respirators and perhaps lead them to think they did not need them.<sup>185</sup> Additionally, it was impossible to make most communal shelters gas proof and thus a curtain would only extend the time until gas penetrated the interior.<sup>186</sup> Lack of ventilation in shelters was also a concern, and with doors covered by a gas curtain the conditions inside the shelters could quickly deteriorate to the point where people would abandon the shelter.<sup>187</sup> One official pointed out that as people continuously enter a shelter after the siren had sounded, the curtain

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<sup>182</sup> TNA: HO 207/363, Ministry of Works and Buildings to A.S. Pankhurst, October 29, 1940.

<sup>183</sup> Ministry of Home Security, *Home Security Circular No. 194/1940*,

<sup>184</sup> TNA: HO 207/355, *The question of gas-proofing shelters was discussed at a meeting at the Home Office*, June 4, 1942, 1.

<sup>185</sup> TNA: HO 207/355, Civil Defence Group 3 Headquarters to Mr. Harold Scott, August 11, 1940, 1.

<sup>186</sup> *ibid.*

<sup>187</sup> *ibid.*

would actually be quite useless.<sup>188</sup> Gas-proofing communal shelters but not the domestic shelters could also have had the unintended effect of people abandoning their Anderson and Morrison shelters for the public shelters.<sup>189</sup> By 1941 the Home Office had withdrawn its initial instructions with another circular stressing the need for proper shelter ventilation.<sup>190</sup> It was estimated that only 5% of surface shelters and 25% of trench shelters had been provided with any kind of gas-proofing equipment.<sup>191</sup> The problem of gas-proofing public shelters, however, was a continuous one and the Home Office again attempted to address the issue at a meeting in 1942.<sup>192</sup> The committee members again concluded that the respirators ought to be the first line of protection and that it was impractical to gas-proof public shelters, suggesting that no systematic program of gas-proofing should be undertaken.<sup>193</sup> Officials also worried about potentially gas-contaminated civilians entering an occupied shelter, where the gas vapor in confined air could prove disastrous to the other shelterers.<sup>194</sup> Solutions to this issue lay in asking wardens to guard shelter entrances, to close shelters entirely after a gas alarm, or to install a gas curtain that would allow contaminated persons to shelter outside the curtain but under cover.<sup>195</sup> Despite respirators being the first, and often only, line of defense against gas, many civilians failed to carry their respirators when entering a public shelter. While

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<sup>188</sup> TNA: HO 207/355, Town Clerk Stoke Newington to London Civil Defence Chief Administrative Officer, October 5, 1940.

<sup>189</sup> *ibid.*

<sup>190</sup> Ministry of Home Security, *Home Security Circular No. 3/1941*

<sup>191</sup> TNA: HO 207/355, Letter to A.J. Edmunds, n.d.

<sup>192</sup> TNA: HO 207/355, *Gas proofing of Air Raid Shelters, Note of Meeting Held at the Ministry of Home Security*, June 4, 1942.

<sup>193</sup> *ibid.*, 3.

<sup>194</sup> TNA: HO 207/355, Senior Regional Officer to Mr. Parker, March 8, 1941.

<sup>195</sup> *ibid.*

no one was to be denied entry into a shelter for lacking a gas mask, local authorities were urged to remind culprits to carry their masks or have them repaired or replaced in the case of problems.<sup>196</sup> In large shelters posters were exhibited that read “This Shelter is not Gas Proof—Always bring your Gas Mask with you.”<sup>197</sup>

There were problems with the communal shelters, too. While ideally a shelter would remain open all day to allow people to seek shelter during a raid, experience showed that in many places pilfering, misuse, and vandalism occurred in shelters that had been left open. In most areas, public shelters were thus kept locked during the day and opened at a specific time each evening.<sup>198</sup> In the case of some surface brick shelters, selected families would receive the key for the shelter, allowing them to use the shelter when needed and giving them a sense of the shelter being theirs.<sup>199</sup> Like the Anderson shelter, some communal shelters were also prone to flooding, particularly those partially or completely sunk beneath the surface.<sup>200</sup> Over a quarter of the LCC’s outside shelters, provided primarily to their housing estates, were unusable due to flooding.<sup>201</sup> Many trench shelters were not bunked which made spending the night in them an uncomfortable experience that many avoided by sheltering elsewhere.<sup>202</sup> In many public shelters the lighting was not up to reading standards.<sup>203</sup> The slatted doors installed on

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<sup>196</sup> TNA: HO 207/356, Ministry of Home Security Memorandum, “Anti-Gas Policy,” October 10, 1940.

<sup>197</sup> TNA: HO 207/356, Assistant Secretary of Ministry of Health to local authorities, “Posters for Public Air Raid Shelters,” March 15, 1941.

<sup>198</sup> Ministry of Health, *Air Raid Shelters, Notes on Principal Provisions* (London: HMSO, 1941), 6.

<sup>199</sup> *ibid.*

<sup>200</sup> LMA: CL/CD/1/170, Letter to Mr. Salmon, December 19, 1940.

<sup>201</sup> LMA: CL/CD/1/170, *Housing Shelter*, n.d.

<sup>202</sup> TNA: HO 207/359, *Report on visit of Alderman Key, Regional Commissioner, to Shoreditch*, June 25, 1941, 1.

<sup>203</sup> *ibid.*, 2.

many of the brick surface shelters offered no privacy and let in drafts during the colder months.<sup>204</sup> Furthermore, the brick shelters were often cold and uncomfortable, although the officially-recommended “flower-pot stove” was said to provide enough heating. This consisted of a flower pot with a candle set near its center, set on something allowing a free draft of air, and another flower pot turned upside down on top of the first one.<sup>205</sup> Similar to the Anderson shelter, the Home Office also issued a pamphlet for the communal shelters, titled *Your brick street shelter this winter*, to educate people on how to keep warm in the shelter, what type of bedding to use, how to keep drinks hot, and what items to bring along.<sup>206</sup> Lack of heating and proper ventilation led to frequent complaints of the surface shelters, particularly when condensation built up inside.<sup>207</sup> Tenants of LCC housing estates were sometimes found to frequent public shelters other than those to which they had been assigned, complaining of overcrowding in the official council estate shelters.<sup>208</sup> One official complained that those sheltering in trenches were “frequently disinclined to be organised,” for purposes of entertainment and shelter improvements, and were less of a community than those sheltering in surface or basement shelters.<sup>209</sup> The extremely limited space of a trench shelter made entertainment activities even more difficult. In one trench shelter an official crowded as many people as possible into the angle of the bay, conducting a discussion and cinema show, and then moved on to the next corner of the trench for a repetition.<sup>210</sup> Officials also struggled to find ways to

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<sup>204</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 7.

<sup>205</sup> *ibid.*

<sup>206</sup> Ministry of Home Security, *Your brick street shelter this winter* (London: HMSO, 1940).

<sup>207</sup> LMA: CL/CD/1/170, Letter to Mr. Salmon, December 5, 1940.

<sup>208</sup> LMA: CL/CD/1/170, H.E. Dennis to Clerk of London County Council, December 31, 1940.

<sup>209</sup> TNA: HO 207/386, *An abbreviated report on Shelter & Youth Activities*, January 1941, 1.

offer entertainment options in surface shelters, but saw this as a vital component in enticing families to use them.<sup>211</sup> One option considered was to set aside one shelter in a local group of such structures for play activities for children and recreation for adults, as well as canteen arrangements, that would allow for some formation of social life even in the surface shelters.<sup>212</sup>

The British government's shelter program offered a variety of good shelters for its citizens, whether in their own home or in a community setting. Most of these shelters were on or near the surface and were clearly incapable of providing protection from a direct hit. Despite education campaigns intended specifically to convince the general public of the efficacy of the various shelters, many remained unconvinced that steel panels, brick, or wood could protect them against bombs. Other civilians found the noise of air raids too disruptive and nerve-wracking, which was compounded by hearing bombs, ack-ack guns, and air raid sirens, while they took up space in their shelters. As a result many Londoners, the hardest hit by German raids, found a different solution for shelter—the London Underground Railway, or tube.

Initially the tube was not an authorized shelter. As the tube had been used mostly successfully as a shelter during WWI, government officials considered the underground's potential for the next war. As early as 1936 the possibility of using the tube tunnels as an air raid shelter was addressed.<sup>213</sup> While estimates suggested 140,000 shelterers could be accommodated on the platforms and 675,000 if the tube were shut down entirely, many in

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<sup>210</sup> TNA: HO207/386, *A Report on Shelters & Youth enquiries*, 1941, 2.

<sup>211</sup> TNA: HO207/386, J.M. Bowie, *Boroughs which may appoint Welfare Officers*, May 5, 1941, 1.

<sup>212</sup> *ibid*, 2.

<sup>213</sup> TNA: HO 45/18540, Assistant Under Secretary of State to Chemical Defence Research Department, November 13, 1936.

the government had reservations.<sup>214</sup> The Hailey Report determined the potential shelter contribution of the tube as being limited, due to the system's extent and limited access points, although it considered using the underground as a casualty clearing station.<sup>215</sup> As surface transport was likely to be severely interrupted by war conditions, some argued that it was essential to maintain the underground railway as a transport system only.<sup>216</sup> To facilitate the continuation of transport, particularly of essential personnel such as police and ARP workers, one suggestion was to install doors and barriers at stations to prevent the system being rushed by "disorderly mobs."<sup>217</sup> There were also concerns about flooding in tube stations arising from damage to nearby sewer or water mains that could potentially cause casualties.<sup>218</sup> Some considered, however, that if a decision was taken that the tube was not to be used as a shelter, then there would be a public outcry in the event of an emergency.<sup>219</sup> Even members of the House of Lords called for the government to consider the underground system as an official shelter, being unsatisfied with the response of "technical difficulties" they had received.<sup>220</sup> By the end of September 1940, just a few weeks into the Blitz, the tube stations had been officially

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<sup>214</sup> TNA: HO 45/18540, Lord Privy Seal, January 23, 1939.

<sup>215</sup> TNA: CAB 24/285, *Air Raid Shelters. Report of the Lord Privy Seal's Conference*, April 6, 1939, 16.

<sup>216</sup> TNA: HO 45/18540, Sir Thomas Gardiner, *Use of Tubes in War*, January 20, 1939, 1.

<sup>217</sup> TNA: HO 45/18540, *Memo*, n.d., 3.

<sup>218</sup> TNA: HO 186/149, *The Part of London Tube Railways in the War*, 1939, 1.

<sup>219</sup> TNA: HO 45/18540, *Memo*, n.d., 1.

<sup>220</sup> TNA: HO 45/18226, House of Lords, "Air Raid Precaution Policy," February 16, 1939, 811.



recognized as shelters, but overcrowding was so extreme that regulation was required.<sup>221</sup> Even as the tube was recognized officially as a place of shelter and local authorities were adding amenities, the Ministry of Information urged that nothing be printed in the press about this that might attract people to shelter in the underground.<sup>222</sup>

No government directions or other available shelters could stop Londoners from crowding into the tube at the first signs of an air raid. It had been clear to government officials even prior to the war that it would be impossible to keep a crowd out of the underground if they were determined to get in.<sup>223</sup> Those seeking shelter in the tube simply paid the minimum fare and then spent the night on the platforms and stairwells while the air raid raged above them.<sup>224</sup> On September 7, 1940, the first night of raids on London, shelterers invaded the tube stations and there was no night subsequently during the war that did not see scores of civilians seeking refuge there.<sup>225</sup> Eighty tube stations were ultimately used as shelters, plus three non-traffic stations and two tunnels.<sup>226</sup> The numbers of the nightly shelter population varied over the years as danger from raids decreased. What officials referred to as a “hard core” of shelterers sought protection in the tube even during times of enemy inactivity, that in some boroughs amounted to as much as 50% of the regular shelter population.<sup>227</sup> Many people also flocked to the tube

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<sup>221</sup> TNA: HO 186/321, London Passenger Transport Board, *Use of Tube Stations as Shelters*, September 25, 1940.

<sup>222</sup> TNA: HO 186/321, Letter to T.B. Braund, September 24, 1940.

<sup>223</sup> TNA: HO 45/18540, Sir Thomas Gardiner, *Use of Tubes in War*, January 20, 1939, 3.

<sup>224</sup> “Tube Railways as Shelters. Problem Being Tackled by Government,” *Sunderland Echo and Shipping Gazette*, September 17, 1940.

<sup>225</sup> LMA: ACC/1297/LPT/01/038A, *Chronological Table of 80 Happenings at Tube Station Shelters*, June 23, 1945, 1.

<sup>226</sup> TNA: HO 207/404, P.G Stock, *Shelters—L.P.T.B. Tube Stations*, March 1, 1944, 1.

<sup>227</sup> TNA: MAF 99/1711, London Passenger Transport Board, *Tube Shelters*, Report No. 31, November 12, 1943, 1.

for companionship, warmth, and light.<sup>228</sup> The movement of trains and people offered distraction, as did the shelter entertainment programs.<sup>229</sup> Deep underground shelterers were removed from the disruptive noise of air raids and could thus get a good night's rest that was almost impossible above ground.<sup>230</sup> The shelter population was highest during the Blitz, with the record for nightly shelterers, recorded in September 1940, at 177,000.<sup>231</sup> Over three years the nightly population averaged around 36,000 and by mid-1943 the total number of shelters up to that point had surpassed four times the population of Greater London.<sup>232</sup> During 1943 the average nightly shelter population was around 10,000, with an increase of about 7,000 if an alert sounded.<sup>233</sup> The advent of the flying bombs once again drove Londoners into the tube, with numbers during July and August 1944 averaging well over 25,000 shelterers per night.<sup>234</sup> The tube had sheltered a total population of 63 million by the end of the war.<sup>235</sup>

Many shelterers spent the entire night in a public shelter. After the start of the Blitz it became clear that night raiding was to be expected and many civilians simply took shelter from the evening until the next morning whether a raid occurred or not. This meant that many shelters now became dormitories and required the type of amenities that

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<sup>228</sup> *ibid.*

<sup>229</sup> *ibid.*

<sup>230</sup> *ibid.*

<sup>231</sup> TNA: MAF 99/1711, London Passenger Transport Board, *Tube Shelters*, Report No. 30, July 28, 1943, 4.

<sup>232</sup> *ibid.*

<sup>233</sup> TNA: MAF 99/1711, London Passenger Transport Board, *Tube Shelters*, Report No. 31, November 12, 1943, 1.

<sup>234</sup> TNA: MAF 99/1711, Tube Refreshments Service, *Report for the Period 27th July to 28th September 1944*, September 28, 1944, 1.

<sup>235</sup> LMA: ACC/1297/LPT/01/038A, *Chronological Table of 80 Happenings at Tube Station Shelters*, June 23, 1945, 4.

would see crowds of people through the night. Just a few months into the Blitz, bunks were starting to be provided in many of the stations and other public shelters. The type of sleeping facilities used in the tube stations consisted of three tiers of bunks, one above the other, with the middle bunk capable of being let down so as to form a backrest for someone sitting on the bottom bunk.<sup>236</sup> By 1943, 80 out of 120 tube stations had dormitory arrangements, each accommodating approximately 1,000 people.<sup>237</sup> Soon ticketing systems were put in place to allow shelterers into tube stations and other large public shelters. Such shelters were known as ‘reserved shelters’ and required ticket holders to produce their ticket before being allowed to enter.<sup>238</sup> It was common, however, for shelterers to exceed bunked space, particularly in areas with many theaters, cinemas, or dance halls that could suddenly see hundreds of people seeking temporary shelter. At Covent Garden station, for instance, there were bunks for 180 people, but as many as 700 crowded into the station, with the majority sleeping on the platforms.<sup>239</sup> At another station, people crowded the platforms all the way up to the rail edge, making it nearly impossible to carry a fainting case to the first aid post.<sup>240</sup> Staircases and escalators were often packed with people sitting, standing, or sleeping, making ingress or egress difficult.<sup>241</sup>

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<sup>236</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 2.

<sup>237</sup> TNA: MAF 99/1711, A.W. Durst, *L.P.T.B. Tube Refreshment Service*, September 1, 1943.

<sup>238</sup> Ministry of Health, *Air Raid Shelters, Notes on Principal Provisions* (London: HMSO, 1941), 8.

<sup>239</sup> TNA: HO 207/404, City of Westminster, *Tube Station Shelters. Report to the Town Clerk and ARP Controller*, February 25, 1944, 2.

<sup>240</sup> TNA: HO 207/404, Royal Borough of Kensington, *Tube Station Shelters - Overcrowding*, February 25, 1944, 1.

<sup>241</sup> *ibid.*

It was vital to maintain the well-being of the shelterers. While the Home Office was concerned with providing shelters, the Ministry of Health was responsible for issues of public health, medical care, public order, admission to the shelters, entertainment, bunking, lighting, stoves, and canteen arrangements.<sup>242</sup> To maintain order, a set of public rules of conduct in shelters was adopted and posted in every public shelter. Such rules prohibited nuisance behaviors like spitting, littering, and disturbing the peace and discouraged unwelcome people who were drunk, “offensively unclean,” or verminous.<sup>243</sup> Lavatories were considered one of the most important factors in the comfort and health of shelterers.<sup>244</sup> While all shelters had some type of lavatory, water-borne systems were preferred over the Elsan-type chemical lavatories, which were small and required regular emptying.<sup>245</sup> Two lighting systems were recommended, one bright enough to allow people to read, and another blue light system that would allow for sleep at a certain time when the regular lights were switched off.<sup>246</sup>

A vital component of shelterers’ well-being and morale was the provision of canteens. Many civilians came to the shelters directly from work and thus providing some type of refreshment was almost a necessity. The Tube Refreshment Service commenced by the end of October 1940 at the Holland Park station, but soon extended across the tube network.<sup>247</sup> Canteens were generally provided for all shelters with a capacity over 200,

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<sup>242</sup> Ministry of Health, *Air Raid Shelters, Notes on Principal Provisions* (London: HMSO, 1941), 3.

<sup>243</sup> *ibid.*, 7-8.

<sup>244</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 2.

<sup>245</sup> *ibid.*

<sup>246</sup> *ibid.*, 3.

<sup>247</sup> LMA: ACC/1297/LPT/01/038A, *Chronological Table of 80 Happenings at Tube Station Shelters*, June 23, 1945, 1.

although some smaller shelters used for sleeping had canteen arrangements, as well.<sup>248</sup> The Tube Refreshment Service was a sophisticated system that ensured access, at a minimum, to hot tea and light snacks for the majority of civilians in London's public shelters. Canteens and service points sold items such as tea, cocoa, milk, cookies, Swiss rolls, potato chips, fruit pies, and steamed potatoes, varying in price from a half to three pence.<sup>249</sup> Canteens had been set up in 80 tube stations, with the expectation of feeding an estimated 80,000 people.<sup>250</sup> Sales were particularly high during the Blitz, but continued even during the calm periods. In one week of March 1944, the Tube Refreshment Service sold 80,000 cups of tea, 63,000 slab cakes, 30,000 cookies, 30,000 Swiss rolls, and 40,000 buns.<sup>251</sup> By 1945, the lack of air raids had so reduced the nightly shelter population that the refreshment service was operating at a significant deficit and service points were reduced to just 25, with the possibility of shutting the service down entirely if the number of shelterers continued to fall.<sup>252</sup> By the end of the war the refreshment service had served over 545,000 gallons of tea to shelterers in London's underground.<sup>253</sup>

To alleviate boredom, a variety of entertainment options were available in public shelters. Space, however, was a consistent problem that undermined these entertainment efforts. Many activities were chosen simply because they could take place in the limited space of a public shelter. Libraries with a variety of books were available in many large

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<sup>248</sup> Ministry of Health, *Air Raid Shelters, Notes on Principal Provisions* (London: HMSO, 1941), 13.

<sup>249</sup> TNA: MAF 99/1711, London Transport, *Cockfosters Depot*, January 10, 1944.

<sup>250</sup> TNA: MAF 99/1711, A.W. Durst, *L.P.T.B. Tube Refreshment Service*, September 1, 1943.

<sup>251</sup> TNA: MAF 99/1606, London Passenger Transport Board, *Tube Refreshments. Refreshments Consumed Week Ended 2nd March, 1944*, March 6, 1944.

<sup>252</sup> TNA: MAF 99/1711, *Minutes of the Tube Refreshments Meeting*, April 4, 1945, 1.

<sup>253</sup> LMA: ACC/1297/LPT/01/038A, *Chronological Table of 80 Happenings at Tube Station Shelters*, June 23, 1945, 4.

public shelters, with bookcases provided at government expense.<sup>254</sup> Some shelter wardens kept toys and books for children to keep them entertained and out of trouble.<sup>255</sup> In some smaller shelters concerts, arranged by the Council for the Encouragement of Music and the Arts (CEMA), were found to be very popular.<sup>256</sup> The Emergency Music Scheme, however, was primarily focused on entertaining the recent victims of bombing raids in rest centers.<sup>257</sup> Knitting parties were popular with both shelterers and shelter officials. Knitting was a quiet activity that required little space and directly aided the war effort by producing knitted garments that were sent to the troops, civil defense workers, or evacuated children.<sup>258</sup> The forming of shelter choirs was also strongly encouraged as it was an activity suitable for any type of shelter, and competitions between choirs were arranged to encourage participation.<sup>259</sup> In several shelters, play centers were set up, one, for instance, in a railway arch, but lack of space was a persistent problem.<sup>260</sup> Shelterers were also encouraged to care for their own well-being by arranging amateur theatricals, spelling bees, singing songs, or arranging for small competitions between shelter bays or compartments.<sup>261</sup> In London's boroughs, many public shelters arranged informal Christmas parties, usually run by the shelterers themselves with no financial aid from official channels.<sup>262</sup> Entertainment options sometimes spread beyond the confines of the

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<sup>254</sup> TNA: HO 207/417,

<sup>255</sup> TNA: HO 207/417, Ruth Dalton to Mr. Thomas, August 8, 1941.

<sup>256</sup> TNA: HO 207/386, London Civil Defence Region, *Education and Entertainment in Shelters*, November 7, 1940, 3.

<sup>257</sup> TNA: HO 207/386, C.E.M.A., *Emergency Music*, n.d., 1.

<sup>258</sup> TNA: HO 207/386, Lady Gowers to M.A. Creswick Atkinson, February 21, 1941, 1.

<sup>259</sup> TNA: HO 207/386, Regional Welfare Adviser to Controller, March 24, 1941.

<sup>260</sup> TNA: HO207/386, *A Report on Shelters & Youth enquiries*, 1941, 1.

<sup>261</sup> TNA: HO 207/386, M.A. Creswick Atkinson, *Plan for Welfare in Shelters*, February 5, 1941, 3.

<sup>262</sup> TNA: HO 207/386, *Christmas Parties*, December 15, 1941.

shelter and registered London shelterers, for instance, could receive half rate admission to the London Zoo.<sup>263</sup> Eight of the boroughs arranged some type of open-air recreation for their shelterers during the day, such as concerts, picnics, open-air theaters, and swimming.<sup>264</sup> Competitions between shelters, covering vocal music, variety performances, and drama competitions, were hoped to encourage participation and foster a self-help spirit.<sup>265</sup> Most of the London boroughs also created Shelter Welfare Councils or Committees that were directly responsible for setting up entertainment and recreation in their local shelters.<sup>266</sup> The appointment of a borough Shelter Welfare Officer was justified for shelter populations over 10,000, a requirement met by seven boroughs.<sup>267</sup> One official, however, pointed out that since the overall policy emphasized dispersal, the large public shelters ought not to be made too attractive.<sup>268</sup> Another argued that focusing on entertainment in shelters was losing sight of the dispersal policy, and particularly complained about one large shelter where it was said people were living the entire time and doing nothing to aid the country in its war effort.<sup>269</sup> Professional entertainments were therefore to be rare and could only be put on as a surprise so as to avoid advertising and drawing people away from their communal surface shelters.<sup>270</sup> Films were also restricted and although they could be shown somewhat frequently, regular and recurring

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<sup>263</sup> TNA: HO207/386, Zoological Society of London to Chief Administrative Officer, March 28, 1941.

<sup>264</sup> TNA: HO207/386, *Data for Progress Report, Welfare*, July 31, 1941.

<sup>265</sup> TNA: HO 207/386, London Civil Defence Region, *Shelter Competitions*, 1941.

<sup>266</sup> TNA: HO207/386, *Progress of Welfare with regard to Shelters during the last 10 days*, April 2, 1941.

<sup>267</sup> TNA: HO207/386, J.M. Bowie, *Boroughs which may appoint Welfare Officers*, May 5, 1941, 1.

<sup>268</sup> TNA: HO 207/386, London Civil Defence Region, *Education and Entertainment in Shelters*, November 7, 1940, 1.

<sup>269</sup> TNA: HO 207/386, Memorandum to Mr. Pankhurst, February 8, 1941.

<sup>270</sup> TNA: HO 207/386, London Region Circular No. 385, *Training of Shelter Wardens'*, June, 1941, 17.

performance was to be avoided.<sup>271</sup> Most films were around ten minutes long and covered topics on the armed forces, the colonies, the allies, types of arms, jobs for women, and the history of topics such as transport, the wireless, the postal service, and savings banks.<sup>272</sup> Health films were also readily available, educating viewers on immunizations, eugenics, home nursing, maternity and child welfare, nutrition, personal hygiene, physical education, physiology, disease prevention, road safety, and social hygiene.<sup>273</sup> A score of civil defense films urged civilians to volunteer and aid the war effort.<sup>274</sup>

Education programs and talks were particularly useful, as they served both a practical purpose and could be put on easily in almost any shelter. In the small communal shelters on their Housing Estates, the LCC set up education programs, consisting of travel talks, needlepoint classes, and choral music.<sup>275</sup> Each borough council, in cooperation with the LCC, also arranged for classes in all of London's public shelters. These classes were usually only held during autumn and winter, when there was less daylight for people to enjoy the outdoors.<sup>276</sup> The shelter classes often revolved around topics of self help, such as dressmaking, needlecraft, keeping fit, war time cookery, knitting, first aid, home nursing, make-and-mend, boot repairing, rug making, infant care, and English.<sup>277</sup> Other classes instructed shelterers on travel, current events, appreciation of music, the story of London, dramatic literature and elocution, civics and citizenship, community singing,

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<sup>271</sup> TNA: HO 207/386, London Civil Defence Region, *Shelter Notes—(Welfare) 1941*, 1941, 5.

<sup>272</sup> TNA: HO 207/386, "The following films are to be added," August 10, 1942; *Central Film Library Incorporating the Empire and GPO Film Libraries*, 1942.

<sup>273</sup> TNA: HO 207/386, The Central Council for Health Education, 1942.

<sup>274</sup> TNA: HO 207/386, Central Film Library, 1942.

<sup>275</sup> TNA: HO 207/386, London Civil Defence Region, *Education and Entertainment in Shelters*, November 7, 1940, 2.

<sup>276</sup> LMA: EO/HFE/1/222, Education Officer to Town Clerk Borough Council, September 26, 1941.

<sup>277</sup> LMA: EO/HFE/1/222, London County Council, *Evening Institutes - Shelter Classes*, February 1941.



general health, drawing, painting, international affairs, social questions, horticulture, and psychology.<sup>278</sup> One official suggested that shelters were a good place to spread propaganda, as the shelter population was “almost terrifyingly receptive,” although he cautioned that such propaganda speakers had to be amusing and interesting.<sup>279</sup> Talks for children between 5 and 14 covered such topics as careers, life in the armed forces, animal care, and model-making for boys, while girls heard talks on dressmaking, knitting and crocheting, cookery and housekeeping, nursing as a career, and elementary first aid.<sup>280</sup>

A major concern was also the health of shelterers, particularly in the larger and crowded shelters, such as the tube stations. The Ministry of Health strongly encouraged the provision of washing facilities and lavatories in every public shelter where people slept.<sup>281</sup> Shelters where 50 or more people slept regularly were to be cleaned daily.<sup>282</sup> Drinking water was to be supplied either through a piped system or an appropriate vessel.<sup>283</sup> Shelters with capacities of 500 or greater were required to have a medical first aid post set in a space screened from the rest of the shelter.<sup>284</sup> The purpose of such first aid posts was not to treat air raid casualties, but to tend to minor illnesses and injuries arising from shelter living, as well as to facilitate the detection and prevention of infectious diseases.<sup>285</sup> Groups of smaller shelters could be served by one first aid post in a

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<sup>278</sup> *ibid.*

<sup>279</sup> TNA: HO 207/386, M.A. Creswick Atkinson, *Plan for Welfare in Shelters*, February 5, 1941, 2.

<sup>280</sup> TNA: HO207/386, Miss Creswick Atkinson, *Welfare in Public Shelters*, 1941, 5.

<sup>281</sup> Ministry of Health, *Air Raid Shelters, Notes on Principal Provisions* (London: HMSO, 1941), 12.

<sup>282</sup> *ibid.*, 12.

<sup>283</sup> *ibid.*, 13.

<sup>284</sup> *ibid.*, 15.

<sup>285</sup> *ibid.*, 16.

convenient location no more than 200 yards from any shelter.<sup>286</sup> Such posts were to be staffed by nurses, with a doctor employed to visit the large shelter first aid posts regularly.<sup>287</sup> To prevent infectious diseases from spreading, health officers offered free vaccinations for diseases, such as diphtheria, in the shelters.<sup>288</sup> Those suffering from tuberculosis were offered alternate shelter and each family with a tuberculosis case was to have their own shelter, even receiving priority distribution of the Anderson shelter.<sup>289</sup> Smoking was prohibited in all public shelters, but such restrictions were largely ignored and pipes or cigarettes hastily hidden at the sight of an official or warden.<sup>290</sup> One official suggested sandwiching a health hygiene film between two amusing ones to ensure they would be watched and enjoyed.<sup>291</sup>

Special shelter wardens were appointed to keep order. Any public shelter where civilians regularly spent the night required shelter wardens, at the rate of one male and one female warden for shelters with under 200 shelterers and two paid wardens per 500 shelterers in shelters with over 500 regular shelterers.<sup>292</sup> The selection of shelter wardens required care and only those capable of being firm without “adopting a bullying or domineering attitude” were to be chosen.<sup>293</sup> Wardens were also required to be

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<sup>286</sup> *ibid.*

<sup>287</sup> *ibid.*

<sup>288</sup> TNA: HO 207/359, Ministry of Health, *Prevention of infection in public air raid shelters*, December 7, 1940, 1.

<sup>289</sup> *ibid.*

<sup>290</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 4.

<sup>291</sup> TNA: HO 207/386, M.A. Creswick Atkinson, *Plan for Welfare in Shelters*, February 5, 1941, 3.

<sup>292</sup> TNA: HO 207/359, Ministry of Health, *Prevention of infection in public air raid shelters*, December 7, 1940, 9.

<sup>293</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 4.

sympathetic, tactful, and confident.<sup>294</sup> Shelter wardens received training in such subjects as crowd control, the prevention of panic, shelter cleaning, hygiene, sleeping arrangements, canteens, women and girls in shelters, medical arrangements, entertainment, and stimulation of self-help.<sup>295</sup> In some shelters, after complaints were received, shelter wardens received access to a small cubicle or other private space where they could hang their clothes, write reports, eat their meals, and sleep, away from the general public.<sup>296</sup> Those who supported the idea of a private space for shelter wardens argued that public morale was largely dependent on the morale of the shelter warden.<sup>297</sup>

Despite the relatively sophisticated system set up to run the tube shelters, complaints were plentiful. Overcrowding was one of the primary complaints. At the entrances to tube stations the crowds were particularly worrisome, all rushing into the station at the sound of a siren, often with no system of order. Civilians suggested adding strong handrails to entrances, forcing people to enter in a single, orderly line, or making two entrances, one for men and the other for women and children.<sup>298</sup> Sometimes those who had been allotted bunks inside the stations had to fight their way through crowds blocking stairways, escalators, and entrance halls.<sup>299</sup> During a raid people sought protection in the tube stations wherever they could find space, massing on escalators, platforms, stairwells, and entrance halls and this caused particular problems when packed

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<sup>294</sup> *ibid.*

<sup>295</sup> TNA: HO207/386, London Region Circular No. 385, *Training of Shelter Wardens'*, June, 1941, 2.

<sup>296</sup> TNA: HO 207/417, Officer in Charge of Tube Shelters to Ernest Gowers, January 9, 1941, 1.

<sup>297</sup> TNA: HO 207/417, Ruth Dalton to Mr. Thomas, August 8, 1941.

<sup>298</sup> TNA: HO 186/1213, *The Shelter Incident*, March 12, 1943, 1.

<sup>299</sup> *ibid.*

trains arrived with passengers needing to exit.<sup>300</sup> One observer remarked at the crowds pushing and people climbing over railings to escape the throng that “everything was there for the making of a catastrophe.”<sup>301</sup> Bug infestations were not uncommon in public shelters. Old Street tube station drew particular ire from officials for its supposed bed bug infestation and overcrowded conditions, although an official inspector failed to find any vermin at the station.<sup>302</sup> At Finsbury Park, shelter health officials traced an outbreak of vermin to the bunk of one shelterer with infested bedding, worrying that bugs on the platforms could be picked up by tube passengers and increase the infestation.<sup>303</sup> Just a few days later several more tube stations reported sighting bed bugs and London’s civil defense and public health officials issued a circular on how to combat bed bug infestations.<sup>304</sup> Officials considered the shelterers’ bedding “one of the greatest sources of danger” and a variety of solutions to the dirty bedding problem were proposed.<sup>305</sup> Leicester Square, for instance, offered wooden cubby holes where shelterers could leave their bedding during the day for the charge of one shilling.<sup>306</sup> Other authorities contracted with a laundry to have bedding collected in the morning and returned washed in the evening for a small charge.<sup>307</sup> The tight conditions also made nuisance behavior a

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<sup>300</sup> *ibid.*

<sup>301</sup> *ibid.*, 2.

<sup>302</sup> TNA: HO 207/359, Officer in Charge of Tube Shelters to Medical Officer of Health, “Bugs at Old Street Tube Shelter,” June 5, 1941, 1; TNA: HO 207/359, Memorandum to Mr. Pankhurst, “Borough of Shoreditch,” June 24, 1941, 1.

<sup>303</sup> TNA: HO 207/359, Officer in Charge of Tube Shelters to W. Eric Adams, “Finsbury Park Tube Shelter,” June 26, 1941.

<sup>304</sup> TNA: HO 207/359, London Region Circular No. 404, *Air Raid Shelters Infestation by Bed Bugs*, June 30, 1941; Mr. Pankhurst, *Minute Sheet*, June 30, 1941.

<sup>305</sup> TNA: HO 207/359, Officer in Charge of Tube Shelters to Medical Officer of Health, “Bugs at Old Street Tube Shelter,” June 5, 1941, 1.

<sup>306</sup> *ibid.*

<sup>307</sup> *ibid.*

particular problem. In one tube station shelterers complained about the disturbance made by a woman's pet monkey.<sup>308</sup>

Officials worried especially about the shelterers and passengers of the tube in the case of a gas attack. The question of poison gas and the underground network was addressed as early as 1936. One official called on the CDRD to investigate gas-proofing the tube before any determination could be made on whether the underground could be used as a shelter.<sup>309</sup> While experiments indicated that some stations could be gas-proofed, the extensive and overlapping system as a whole made generalizations impossible.<sup>310</sup> The Chemical Warfare Committee initially ruled out the tube as a sheltering system, because, despite it providing good protection against HE bombs, they assumed the ventilation system would draw gas into the tunnels and gas anyone sheltering there.<sup>311</sup> By 1943 a gas warning device had been installed at 34 tube stations to alert officials and shelterers should gas enter the tubes.<sup>312</sup> A protocol was also established for dealing with the presence of gas near a tube station. If gas was present in the vicinity of the station, fans were to be immediately switched off, the stations on either side notified, the drivers and guards of each arriving train were to be warned, a sign displayed on forward headwalls to indicate the presence of gas and slow the trains to 15 mph, and passengers exiting the train alerted with a prominent sign of the presence of gas that also instructed them to don

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<sup>308</sup> "Pet Monkey in Tube Shelter," *Hartlepool Northern Daily Mail*, December 14, 1940.

<sup>309</sup> TNA: HO 45/18540, A.H., April 28, 1936, 1.

<sup>310</sup> TNA: HO 45/18540, Chief Superintendent to Assistant Under-Secretary of State, May 7, 1936.

<sup>311</sup> Chemical Warfare Committee, *Memorandum on the Protection of the Civil Population Against Gas Attack*, July 28, 1924, 14.

<sup>312</sup> TNA: MAF 99/1711, London Passenger Transport Board, *Tube Shelters*, Report No. 30, July 28, 1943, 3.

their respirators.<sup>313</sup> The shelter warden was to be responsible for ensuring that those sheltering on platforms put on their gas masks.<sup>314</sup> As with the communal shelters, the tube stations were not gas proof and thus the respirator was the primary method of defense against a gas attack. Officials found, however, that only a minute proportion of the public actually carried their respirators into the tube, creating concerns of mass casualties should a gas attack occur.<sup>315</sup> Borough of Kensington officials asked for permission to refuse admission to the tube shelters to anyone not carrying their respirator, but civil defense regional officers did not want to give such powers to local authorities.<sup>316</sup> Officials particularly worried about the panic that would erupt when gas entered a tube station and only few people had respirators.<sup>317</sup> Others envisioned the “rougher elements in the shelter” appropriating the respirators of people too weak to fight them.<sup>318</sup>

While deep shelters had never been a priority for the government, five deep shelters were eventually built in underground railway tunnels. Construction on these new shelters began as early as January 1941 and even after they were completed at the end of 1942, these shelters were held in reserve, not to be opened until necessary.<sup>319</sup> The bunk capacity of the deep shelters was around 64,000.<sup>320</sup> One use considered for the deep shelters was

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<sup>313</sup> TNA: HO 207/418, London Transport Railways, *Gas-Instructions to Operating Staff*, February 28, 1941.

<sup>314</sup> *ibid.*

<sup>315</sup> TNA: HO 207/356, Town Clerk Borough of Kensington to London Civil Defence Region Chief Administrative Officer, “Gas Attacks in relation to Public Shelters,” November 21, 1941, 1.

<sup>316</sup> *ibid.*, 2; S.G.G. Wilkinson to Town Clerk Kensington, December 8, 1941.

<sup>317</sup> TNA: HO 207/356, Regional Fire Prevention Officer to A.P. Hughes Gibb, “Carriage of respirators by shelterers at LPTB tube stations,” March 9, 1942.

<sup>318</sup> TNA: HO 207/356, Town Clerk Borough of Kensington to London Civil Defence Region Chief Administrative Officer, “Gas Attacks in relation to Public Shelters,” November 21, 1941, 2.

<sup>319</sup> LMA: ACC/1297/LPT/01/038A, *Chronological Table of 80 Happenings at Tube Station Shelters*, June 23, 1945, 2.

<sup>320</sup> *ibid.*

as a dormitory for night workers who could thus sleep restfully during the day.<sup>321</sup> The press, however, found out about the shelters and published hyperbolic articles that the government thought would undermine morale. The *News Chronicle* published a story that described the new shelters as luxurious, with a “central avenue 16 ft. across, flanked with miniature hospitals, shops, restaurants, offices and inquiry and washing stations.”<sup>322</sup> The shelters were said to hold one million people in total and were “bomb, gas, water and fool proof.”<sup>323</sup> Such exaggerated articles clearly undermined the government’s efforts to promote existing shelters. One annoyed official, scrawling in the margins of the article, asked “How did this silly story happen?”<sup>324</sup> In a letter to newspaper editors the Home Office urged them not to advertise the deep shelters, to avoid giving the world a false impression of how London was coping with the new menace of the flying bombs and to avoid instilling a deep shelter mentality in the public.<sup>325</sup> Too much press coverage concerning the deep shelters could also undermine the public’s trust in their existing shelters and as there was not enough space in the deep shelters for likely demand, this could potential lead to chaos and loss of faith in the government.<sup>326</sup> The flying bomb did ultimately induce the government to open the deep shelters. Over a period of two weeks in July 1944 the five shelters were opened to shelterers transferred from other stations and to new shelterers bombed out of their homes, as well as women and children.<sup>327</sup>

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<sup>321</sup> TNA: HO 186/1763, Memo from Parliamentary Secretary to Minister, *Opening of Deep Tube Shelters*, July 4, 1944, 1.

<sup>322</sup> “London’s Hush-Hush Shelters Are The Last Word in Luxury,” *News Chronicle*, August 31, 1942.

<sup>323</sup> *ibid.*

<sup>324</sup> TNA: HO 186/1668, Copy of “London’s Hush-Hush Shelters Are The Last Word in Luxury,” *News Chronicle*, August 31, 1942.

<sup>325</sup> TNA: HO 186/1668, *Draft P. and C. Letter to Editors*, 1944, 1.

<sup>326</sup> TNA: HO 186/1668, Letter by Controller Press & Censorship, July 13, 1944.

<sup>327</sup> TNA: MAF 99/1711, London Passenger Transport Board, *Tube Shelters*, August 1, 1944.

Sheltering underground might have appeared as the safest option, but there were nevertheless casualties in the tube shelters. There were relatively few fatal accidents inside the tube shelters, but direct hits on tube stations did lead to casualties. On three consecutive nights in October 1940, three tube shelters were hit, killing 90 shelterers total.<sup>328</sup> Direct hits also underscored the government's dispersal policy, as casualties were often significant for single incidents. 64 people were killed in a direct hit on Balham station, while 53 shelterers died at Bank station during a raid.<sup>329</sup> The worst loss of civilian life during the war also occurred at a tube station, although this was not due to bombs, but as a result of the very panic civil defense was aiming to forestall. On the evening of March 3<sup>rd</sup>, 1943, an alert sounded that saw hundreds of those living nearby hurry to seek shelter at the Bethnal Green tube station, a number that was quickly swelled by patrons from two cinemas and three buses setting their passengers down outside the shelter.<sup>330</sup> Within ten minutes of the alert, 1,500 people attempted to enter the shelter through the stairwell when a nearby rocket battery discharged a salvo that created panic in the crowd.<sup>331</sup> Believing the noise to be enemy bombs the crowd surged forward and, when a woman at the bottom step fell, the pressure of the crowd was so intense that many were pushed forward, on top of others that fell, creating a mass of bodies five or six deep.<sup>332</sup> The chief investigator wrote that in the span of ten seconds the stairwell was converted

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<sup>328</sup> LMA: ACC/1297/LPT/01/038A, *Chronological Table of 80 Happenings at Tube Station Shelters*, June 23, 1945, 1.

<sup>329</sup> *ibid.*, 1-2.

<sup>330</sup> Laurence Dunne, *Report on an Inquiry into the Accident at Bethnal Green Tube Station Shelter on the 3rd of March, 1943* (London: HMSO, 1945), 5.

<sup>331</sup> *ibid.*

<sup>332</sup> *ibid.*



from a “corridor to a charnel house.”<sup>333</sup> With the crowd on top of the steps still surging forward to enter the shelter and those at the bottom a tangled mass, extrication was nearly impossible.<sup>334</sup> When the crowd was finally cleared and casualties removed and sent to hospitals, the death toll was staggering. 173 people had died, most of them women and children, and all had died as a result of suffocation and extreme compression.<sup>335</sup> A special investigator was appointed who blamed the disaster on a variety of reasons, both psychological and physical. The tube station’s single entrance, poor lighting in the stairwell, and lack of handrails and crush barriers were contributing factors, while the mad rush of several hundreds of people attempting to push into the shelter was the primary reason for the disaster.<sup>336</sup> As the Borough had, as early as 1941, contemplated the very disaster that actually occurred, yet had failed to address the issues they had highlighted, some of the blame was also directed at the local authority.<sup>337</sup> In 1939 the Hailey Report had advocated ramps be provided over stairs in shelter entrances, suggesting that stairs were likely to lead to disaster.<sup>338</sup>

Larger issues of civil defense were consistently at play in the British shelter program. While physical protection of the civil population was the primary and most important purpose of air raid shelters, the shelter program also served other purposes that fitted into the wider objectives of civil defense. The British government certainly worked actively to offer its population at least basic protection from air raids, but government

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<sup>333</sup> *ibid*, 7.

<sup>334</sup> *ibid*.

<sup>335</sup> *ibid*, 8.

<sup>336</sup> *ibid*, 12-13.

<sup>337</sup> *ibid*, 16-18.

<sup>338</sup> TNA: CAB 24/285, *Air Raid Shelters. Report of the Lord Privy Seal’s Conference*, April 6, 1939, 13.

departments and officials also aimed to make sure the population knew the government was trying to protect them. The distribution of the Anderson shelters, although they did serve a protective purpose, was also intended to quiet the rising criticisms of the government's poor shelter preparations. The goal of maintaining morale infused much of the shelter program, as it did other parts of civil defense. While protecting civilians from physical harm certainly had the side effect of preserving morale, the addition of amenities in shelters, such as bunks, lighting, canteens, and entertainment programs were almost entirely intended to serve this objective, as well. Despite the burden of providing shelters falling on the government and local authorities, the concept of self-help, vital to the success of civil defense, was pervasive in the shelter program, as well. This primarily consisted of encouraging civilians to build and improve their own shelters and to take an interest in their own protection, but was also reflected in the self-help-oriented shelter classes given in large public shelters. Shelter officials specifically instructed that, in order to ensure collective welfare, "the self help spirit must be encouraged and taught."<sup>339</sup> While the British shelter program most certainly saved civilian lives, it also reinforced the general ideas of civil defense that were vital to the nation's continued resistance.

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<sup>339</sup> TNA: HO 207/386, M.A. Creswick Atkinson, *Plan for Welfare in Shelters*, February 5, 1941, 3.

## **Chapter 7 - “Anything but house-trained:” Civil Defense and Issues of Class, Gender, and Childhood**

In the lead-up to WWII and during the war itself, civil defense became intrinsic to British society, informing all aspects of everyday life. Many people volunteered their time and efforts for some type of civil defense work so that civil defense became integrated into many aspects of civilian life. Even those civilians who did not directly volunteer interacted with elements of civil defense during their daily lives, whether by carrying a gas mask, seeking protection in a shelter, or following blackout guidelines. Civil defense became a part of war-time society to the extent that almost no aspect of everyday life remained untouched. While civil defense had a direct impact on British society, society and culture, in turn, also influenced civil defense. Issues of class were pervasive in British society pre-war and even the great equalizing force of war could not always erase biases and prejudices. Civil defense efforts also often caused great consternation as many feared that war-time living would corrode moral values. Children, unable to participate properly in civil defense and considered a particularly vulnerable population, presented one of the largest challenges. Their physical and spiritual wellbeing were ongoing concerns that required careful solutions. The primary response, evacuation, directly correlated with the wider civil defense policy of dispersal.

There was a well-developed class system in British society prior to WWII. While years of war certainly affected all classes and sometimes even required cooperation between classes, the poorer working class, particularly those of dense urban areas like London’s East End, carried the heaviest burden. Despite shared experiences of rationing, sheltering, poison gas anxieties, and aerial raids, the prevailing view of the lower classes

among their social betters remained relatively unchanged. Negative views of the working class as uncouth, unintelligent, and troublesome also informed aspects of civil defense. Issues over class arose in ARP jobs, shelters, with gas masks, and, in particular, with evacuation.

Class issues were particularly evident in the shelters. A report on ARP measures in WWI praised “the more educated and responsible” part of the population, who listened to the advice to stay at home during a raid, in contrast to “the masses, particularly those living in the East End” who were determined not to stay at home at the least sign of a raid and sought better shelter in their thousands.<sup>1</sup> Because most of these civilians sought refuge in the underground stations, causing significant overcrowding and impeding regular business, the government issued a request to news editors to refrain from publishing articles that might add to “the apprehension already prevalent among the poorest and most ignorant classes.”<sup>2</sup> One newspaper correspondent complained about the condition of shelters in Coventry, describing how “the atmosphere of the ‘great unwashed’ met [him] at the head of the steps” and claiming he would not even send his dog to shelter there.<sup>3</sup> A Salvation Army officer found it remarkable that two female workers had served tea to a shelter crowd of six thousand who were considered “to say the least, rough” without being jostled, despite having not even a rail to separate them from the masses.<sup>4</sup>

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<sup>1</sup> TNA: HO 45/14650B, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Anti-Aircraft Precautions (Civilian), 1914-1918*, Part IV, 47.

<sup>2</sup> *ibid*, 48.

<sup>3</sup> “Coventry Shelters Live Down Bad Name,” *Coventry Evening Telegraph*, July 28, 1941.

<sup>4</sup> LMA: A/PMC/071, Salvation Army, Article, 1941, 2.

Issues of class also played a role in public health. Old Street tube shelter, infamous for its supposed bug infestation, had a shelter population made up largely of shelterers from “poor and sometimes dirty houses” and the bugs found in a place where people slept were “presumably brought in by shelterers.”<sup>5</sup> The *Birmingham Daily Gazette* pointed out that “poorer people” in shelters preferred the types of food condemned by nutritionists and did “not take readily” to healthier food, although the sales figures of the Tube Refreshment Service suggest all types of Londoners were guilty of such indulging.<sup>6</sup> One speaker blamed the poor hygiene and bad behavior of evacuated children on their point of origin, explaining that slum children had unsocial habits and were not fit to mix with children enjoying a private education.<sup>7</sup> Another writer agreed that vermin infestation (and nits on the head in particular) was a condition of poverty and a family ‘disease’ that was spread between children and adults in their homes.<sup>8</sup> He added that even if such children were treated at school, they would return to dirty homes in their poor neighborhoods to be reinfected.<sup>9</sup>

Parenting skill was also sometimes defined by class. In trials at Southampton of the baby’s anti-gas helmet, four out of seven babies cried continuously throughout the test, in two cases even driving the mothers to tears as they operated the bellows. The trial report added that the mothers of the three infants who had remained calm were “intelligent and

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<sup>5</sup> TNA: HO 207/359, *Report on visit of Alderman Key, Regional Commissioner, to Shoreditch*, June 25, 1941, 4.

<sup>6</sup> “Shelterers Prefer Cake,” *Birmingham Daily Gazette*, February 8, 1941.

<sup>7</sup> “Children and Slums, Points from the Evacuation Problem,” *Surrey Advertiser and County Times*, January 20, 1940.

<sup>8</sup> “Those Verminous Children,” *North-Eastern Gazette*, October 10, 1939.

<sup>9</sup> *ibid.*

firmer than those of the babies who cried.”<sup>10</sup> A second test, held in a different part of the city, asked the mothers for their impressions on the helmet, because they were “of a superior class” than those who had attended the Southampton test.<sup>11</sup> One writer argued that some people made extremely bad parents due to a disinterest in children, ignorance, or poverty.<sup>12</sup> Attempting to solve the problem of evacuated children, who had been deloused and their behavior adjusted, returning to their poor homes and bad parents, the writer suggested that a considerable proportion of such children could “live quite happily away from their parents.”<sup>13</sup> Evacuated children’s poor table manners were blamed on parents and foster parents were appalled to hear that some children had never seen their mothers cook.<sup>14</sup> The Chief Inspector for the Board of Education suggested that in the case of children who came from the worst homes the conditions that made for sound education had been greatly improved by the children’s evacuation.<sup>15</sup>

The war also created a new type of class—those homeless as a result of air raids. In some areas the newly homeless simply lived in public shelters where they had access to sleeping arrangements and some basic amenities. While many said they would prefer accommodations if they were available, they were ignorant as to how these would be

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<sup>10</sup> TNA:WO 188/407, Porton Down, *Porton Report No. 1971, Anti-Gas Protection of Babies*, August 2, 1938, 1.

<sup>11</sup> *ibid.*, 2.

<sup>12</sup> “Those Verminous Children,” *North-Eastern Gazette*, October 10, 1939.

<sup>13</sup> *ibid.*

<sup>14</sup> “Disclosures of Evacuation,” *Somerset County Herald*, March 25, 1944.

<sup>15</sup> LMA: EO/WAR/5/18, Ministry of Information, *The Schools in Wartime* (London: HMSO, 1941), 7.

obtained.<sup>16</sup> Others refused new billets on the grounds that no shelter was available there, preferring to remain in a less comfortable environment that offered protection.<sup>17</sup>

Conflict was not solely confined to issues of class. Jews often found themselves the target of mistreatment or contempt. In one London shelter a man was removed and barred from returning for causing a “disturbance” against Jews sheltering there.<sup>18</sup> In a shelter used predominantly by Jews the shelterers considered Jewish religious services inadvisable.<sup>19</sup> The LCC had to arrange for a rest center specifically for Jews, as it was often too difficult to accommodate their needs, such as Yiddish speakers and kosher food, in the regular rest centers.<sup>20</sup>

Foreigners also often faced mistrust. A “foreign element” in a public shelter was justification for the appointment of a Shelter Welfare Officer, regardless of the number of shelterers.<sup>21</sup> Lack of British citizenship was also often a bar to volunteering for various ARP posts. Even Shelter Welfare Officers were required to possess British nationality.<sup>22</sup> The refugees from Gibraltar were none too popular. Overcrowding at three tube station shelters was attributed to Gibraltarian refugees who refused to use the shelters provided for them at their hostels.<sup>23</sup> In some stations, groups of these refugees took over entire

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<sup>16</sup> TNA: HO 207/386, *Extract from Minutes of the Metropolitan Town Clerks' Association Meeting*, January 1, 1941.

<sup>17</sup> *ibid.*

<sup>18</sup> TNA: HO207/386, *Shelters, Extracts from Reports by Visiting Ministers*, n.d., 1.

<sup>19</sup> *ibid.*, 2.

<sup>20</sup> TNA: HO 207/386, Assistant Secretary to Mr. H.U. Willink, “Welfare Work for the Homeless,” November 15, 1940, 1-2.

<sup>21</sup> TNA: HO 207/386, J.M. Bowie, *Boroughs which may appoint Welfare Officers*, May 5, 1941, 2.

<sup>22</sup> TNA: HO 207/386, J.M. Bowie, *Boroughs which may appoint Welfare Officers*, May 5, 1941, 2.

<sup>23</sup> TNA: HO 207/404, *Shelter Position in Relation to Recent Raids*, 1944, 1.

platforms to the annoyance of officials.<sup>24</sup> At the South Kensington station they took possession of the bunks at an hour earlier than shelterers were normally allowed to, causing an uproar among the regular shelterers, who had to be sent on to another shelter.<sup>25</sup> Their habits were deemed “unpleasant” and they were separated from the other shelterers.<sup>26</sup> The Gibraltarians were also said to be unpopular due to their “none too cleanly habits.”<sup>27</sup> Some referred to the refugees as “anything but house-trained.”<sup>28</sup> The Borough of Kensington even wrote to complain, arguing that it was not their duty to provide shelter for refugees.<sup>29</sup> WVS workers, however, painted a different picture, suggesting that the permanent shelterers had been extremely rude to the refugees and had started the conflict.<sup>30</sup> The problems seemed to disappear when two of the refugees were appointed as shelter wardens.<sup>31</sup> Another problem station was Notting Hill Gate, where, one official wrote, the “Gibraltarian children have not yet been brought under control.”<sup>32</sup> The children were said to have been seen begging from passengers and the shelter warden wished to find a way to “freeze out the Gibs who are the trouble here.”<sup>33</sup> Evacuees from Malta were also maligned for declining to use their allocated shelters and heading straight

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<sup>24</sup> TNA: HO 207/404, London Passenger Transport Board, *Tube Shelters*, February 29, 1944, 1.

<sup>25</sup> TNA: HO 207/404, Borough of Kensington Director of Shelters to London Civil Defence Region, “Shelterers at Tube Stations,” February 22, 1944.

<sup>26</sup> *ibid.*

<sup>27</sup> TNA: HO 207/, *Shelter Position in Relation to Recent Raids*, 1944, 1.

<sup>28</sup> TNA: HO 207/404, *Extract from the Diary of a Regional Officer, Group 1*, March 4, 1944.

<sup>29</sup> TNA: HO 207/404, Borough of Kensington Director of Shelters to London Civil Defence Region, “Shelterers at Tube Stations,” February 22, 1944.

<sup>30</sup> TNA: HO 207/404, *Extract from the Diary of a Regional Officer, Group 1*, March 4, 1944.

<sup>31</sup> TNA: HO 207/404, J. O’Gara to Col. Warner, March 14, 1944.

<sup>32</sup> TNA: HO 207/404, M. Dallas, *The week in Tubes*, March 6, 1944, 1.

<sup>33</sup> TNA: HO 207/404, *Notting Hill Gate*, March 23, 1944.



for the tubes.<sup>34</sup> One minister of religion blamed an influx of Irish, whom he deemed “lazy, irresponsible, parasitic, and often treacherous,” for the filthy condition of many evacuated children.<sup>35</sup> Irish parents, he claimed, would rather spend their funds on pubs than soap and allowed their children to become filthy and savage.<sup>36</sup>

While sheltering behavior was often correlated with class, people’s attitude towards their gas masks was sometimes similarly described. In fitting tests of the GCR officials concluded that people of at least the middle-class would quickly learn to adjust and wear the respirator when the time came and that they would be unlikely to panic in an emergency. For the poorer classes, however, it was felt that respirator demonstrations would have more positive results and ought to be made compulsory.<sup>37</sup>

Issues over class also often revolved around ideas of morality. Religious figures, charities, and moral crusaders concerned themselves with the potential corruption of the moral fabric of society as a result of war-time living. Civil defense, forming such a significant part of civilians’ everyday life, was concerning because of its potential to upend family life and traditional societal roles. The potential corruption of youth was also a persistent concern. In aiming to prevent a corrosion of morals the focus of most of those concerned with the topic was firmly directed towards the lower classes, whose moral fabric was often already questionable and easily influenced.

Shelter living presented a particular problem to those concerned about morality. The Public Morality Council, established in 1899 and made up of several church

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<sup>34</sup> TNA: HO 207/404, London Passenger Transport Board, *Tube Shelters*, February 29, 1944, 1.

<sup>35</sup> East Side Minister, “Points of View; The Evacuation Scheme,” *The Scotsman*, September 16, 1939.

<sup>36</sup> *ibid.*

<sup>37</sup> TNA: HO 45/17213, Chief Medical Officer, *Part I, Summary of Remarks by Certain Selected Doctors*, November, 1937, 3.

denominations and social and educational societies, tackled the question of the moral condition of public shelters in WWII.<sup>38</sup> The Council considered that the shelter presented a moral problem in two aspects: improper use of empty shelters during daytime and crowds using the shelter during raids.<sup>39</sup> One official wrote that the government's immediate efforts ought to focus on preventing the "unnatural shelter existence having a deteriorating effect on health, morale, and morals."<sup>40</sup> He added that the public shelters' worst feature was the destruction of family life and that the maintenance of the family unit would ensure a strong public rejection of immoral behavior.<sup>41</sup> The London Church of England Temperance Society (LCETS) and the Churches' Committee on Gambling conducted a survey of 150 public shelters to determine the problems arising from shelter living for youth, in particular.<sup>42</sup> Their survey discovered concerning issues of gambling, drinking, and apathy, exacerbated by limited religious instruction.<sup>43</sup>

The congregation and intermingling of large numbers of people naturally led to complaints about behavior and disturbances, inside and outside of the shelters. Bad behavior was to be dealt with through police action, as it was unfair to "decent, orderly people" to have their shelter lives made miserable by "quarrelsome and disorderly persons."<sup>44</sup> Youths under army age were found to be the source of a lot of the trouble, and shelter wardens were instructed that it was not a sign of weakness to ask for a policeman

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<sup>38</sup> LMA: A/PMC/071, General Secretary to Public Morality Council, December 31, 1940.

<sup>39</sup> *ibid.*

<sup>40</sup> TNA: HO 207/386, A.P. H.-G. to Mr. Scott, December 27, 1940, 1.

<sup>41</sup> *ibid.*

<sup>42</sup> LMA: A/PMC/071, The Churches' Committee on Gambling, *Youth in Air Raid Shelters*, March 1941.

<sup>43</sup> *ibid.*

<sup>44</sup> TNA: HO207/386, London Region Circular No. 385, *Training of Shelter Wardens'*, June, 1941, 4.

to check in on the shelterers and to deal with quarrelsome behavior.<sup>45</sup> One Juvenile Court probation officer blamed shelter living and high wages for increases in juvenile crime.<sup>46</sup> Children sometimes used empty shelters as playgrounds, and public toilets, during the day to the consternation of officials.<sup>47</sup> Foreign soldiers and sailors were accused of not being accustomed to the moral standards of Britain and some complaints were received about their behavior.<sup>48</sup> One man was beaten by a crowd and subsequently arrested after being discovered in a shelter with a three-year-old girl that he was accused of having unlawfully and indecently assaulted.<sup>49</sup> The shelters themselves also offered opportunities for thieves and in many locations public shelters were robbed of their electric lightbulbs, closets, picks, and shovels.<sup>50</sup>

The mixing of men and women, particularly in a dormitory setting, was especially concerning. One official suggested that, in order to curb the anxiety arising out of this mixing of the sexes, shelters, where it was possible, should so move or allocate bunks that blocks of compartments of them could be reserved for different groups.<sup>51</sup> The groups would be arranged with unaccompanied men first, then older boys, family parties, girls, and unaccompanied women.<sup>52</sup> Screens were to be set up for nursing mothers behind which they could nurse in privacy.<sup>53</sup> The Chairman of East London's juvenile court

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<sup>45</sup> TNA: HO207/386, London Region Circular No. 385, *Training of Shelter Wardens'*, June, 1941, 4.

<sup>46</sup> LMA: CL/CD/1/275, *Report on Critical Comment in London Local Press, Week ending 15th March, 1941.*

<sup>47</sup> "Public Shelters Being Abused, Says Chief Constable," *Derby Daily Telegraph*, September 10, 1940.

<sup>48</sup> LMA: A/PMC/071, Public Morality Council, *Other Complaints*, n.d.

<sup>49</sup> "Drama at City Shelter," *Liverpool Echo*, November 6, 1940.

<sup>50</sup> "Public Shelters Being Abused, Says Chief Constable," *Derby Daily Telegraph*, September 10, 1940.

<sup>51</sup> TNA: HO 207/386, M.A. Creswick Atkinson, *Plan for Welfare in Shelters*, February 5, 1941, 4.

<sup>52</sup> *ibid.*

<sup>53</sup> TNA: HO 207/386, M.A. Creswick Atkinson, *Plan for Welfare in Shelters*, February 5, 1941, 4.

claimed that any young girl going into a shelter without her mother and father was “simply asking for trouble.”<sup>54</sup> One shelter warden claimed he kept his population under control and out of trouble by separating the men’s beds from those of the women and children.<sup>55</sup> The same warden also turned away young, unaccompanied girls from the shelter, claiming that the shelter was there to offer protection and not free lodging for girls looking to attract men.<sup>56</sup> Issues over the mixing of the sexes could occur even in domestic shelters. One woman, whose family shared an Anderson shelter with a neighbor and her male lodger, would refuse to lie down on the bunks as she could not put her feet up in the presence of a man.<sup>57</sup>

The presence of vices in the population was consistently a reason for complaint. Drinking was common “among certain groups of people” and some of these brought their drinking into the shelters.<sup>58</sup> Problems with drunkenness were particularly noticeable on payday, weekends, and evenings without raids when people would spend their time in pubs before returning to the shelter.<sup>59</sup> The presence of drink or drunkenness in shelters sapped moral conduct among shelterers, although many people likely drank as a result of boredom.<sup>60</sup> Drinking among both young men and women was increasing and again intense boredom was cited as the cause.<sup>61</sup> One observer suggested it was the combination

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<sup>54</sup> “Shelter Perils,” *Evening News*, November 4, 1940.

<sup>55</sup> “Coventry Shelters Live Down Bad Name,” *Coventry Evening Telegraph*, July 28, 1941.

<sup>56</sup> *ibid.*

<sup>57</sup> IMW: Documents.17427, Private Papers of John McCann, 3.

<sup>58</sup> TNA: HO207/386, *An abbreviated Report on Shelter & Youth enquiries*, January 1941, 2.

<sup>59</sup> *ibid.*

<sup>60</sup> *ibid.*

<sup>61</sup> LMA: A/PMC/071, The Churches’ Committee on Gambling, *Youth in Air Raid Shelters*, March 1941, 1.

of drink and women that led to “objectionable incidents.”<sup>62</sup> Reports of drunkenness in shelters were widespread. In some shelters drunken brawlers terrorized women and children and continued their fights even during an actual air raid.<sup>63</sup> Several such drunken brawlers received month-long prison sentences, although magistrates wished they could impose harsher punishments on such men.<sup>64</sup> Gambling was an even more common sight than drinking, with small groups of people engaged in various games, usually secluded in a corner or bay.<sup>65</sup> The presence of children in shelters, who might observe these games, made gambling a more pressing concern.<sup>66</sup> Social workers and the clergy particularly wanted to avoid the initiation of youth into gambling habits and occurrences of gambling in shelters were dealt with strictly.<sup>67</sup> Across the country shelterers caught gambling could be charged under the Vagrancy Act, which deemed anyone playing by way of wagering in public a vagabond, or under the Gaming Act of 1845, which could see fines as high as £50 or even jail time for an offense.<sup>68</sup> In several cases, men, women, and juveniles were fined between two and twelve shillings for playing games such as pontoon, Brag, and rummy.<sup>69</sup> Card sharpers, who moved from shelter to shelter and preyed on youth and women, were considered a particular nuisance.<sup>70</sup> While the responsibility for catching

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<sup>62</sup> “Coventry Shelters Live Down Bad Name,” *Coventry Evening Telegraph*, July 28, 1941.

<sup>63</sup> “Hooliganism in Shelters,” *Aberdeen Press and Journal*, August 30, 1940.

<sup>64</sup> “Shelter Hooligans,” *Yorkshire Evening Post*, September 7, 1940.

<sup>65</sup> TNA: HO207/386, *An abbreviated Report on Shelter & Youth enquiries*, January 1941, 2.

<sup>66</sup> *ibid.*

<sup>67</sup> LMA: A/PMC/071, The Churches’ Committee on Gambling, *Gambling in Air Raid Shelters*, November 1940, 1.

<sup>68</sup> *ibid.*

<sup>69</sup> *ibid.*

<sup>70</sup> *ibid.*

gamblers and notifying police rested with the shelter warden, shelterers themselves were encouraged to report such behavior.<sup>71</sup>

Even outside of the shelters gambling and betting were considered immoral vices. Although sports associated with betting were suspended at the outbreak of war, within just a few weeks horse and greyhound racing, as well as football, returned and with them gambling quickly rose to almost its pre-war levels.<sup>72</sup> When it was suggested that betting pools on football matches would improve the morale of the working man by giving him something to do in the evenings, one official in the Northwestern Region commented that this was a “confession of moral bankruptcy that needs no comment.”<sup>73</sup>

Shelters were also sometimes linked to inappropriate sexual behaviors. The conditions of darkness and congestion in shelters were said to cause immoral behavior.<sup>74</sup> In central London young men and women supposedly used the large shelters as meeting points and then returned to unused surface shelters for sexual activities.<sup>75</sup> Most concerning, however, were the rumors that in some districts prostitutes used shelters to ply their trade.<sup>76</sup> A member of the Church Army reported that “undesirable women” were making use of a shelter in Portsea Place and that one woman in particular had made it a habit to bring different men in and out while keeping to a dark corner of the shelter.<sup>77</sup> Another observer claimed one basement shelter, its dim lighting making it difficult to see

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<sup>71</sup> *ibid.*

<sup>72</sup> LMA: A/PMC/071, The Churches’ Committee on Gambling, *War Time Restrictions on Gambling*, July 1940, 1.

<sup>73</sup> TNA: HO 186/2082, Director of Home Publicity to Sir Wilfrid Eady, September 26, 1939, 2.

<sup>74</sup> TNA: HO207/386, *An abbreviated Report on Shelter & Youth enquiries*, January 1941, 2.

<sup>75</sup> *ibid.*

<sup>76</sup> *ibid.*

<sup>77</sup> LMA: A/PMC/071, Isabel Thorpe to Mr. Tomlinson, November 11, 1940.

what was going on, was being used for immoral purposes and quoted the shelter's warden as claiming the shelter was nothing more than a brothel.<sup>78</sup> Shelter wardens received specific training in how to deal with prostitutes, although they were cautioned about identifying a woman as a common prostitute, as a mistake could bring "serious consequences."<sup>79</sup> The primary duty of a shelter warden in regard to prostitutes was simply to stop solicitation and prevent the annoyance of shelterers.<sup>80</sup> In another shelter a teenaged girl commandeering the darkest part of the shelter was said to regularly invite boys her own age to "share her blanket," a state of affairs the Church Army found "very distressing."<sup>81</sup> At several stations complaints were made about "luridly jacketed so called novels" on display and officials quickly withdrew the offending books.<sup>82</sup> At the Ramsgate Tunnels shelter, officials had to institute new rules about the use of cubicles for sleeping and remove curtains and doorways after public morality concerns arose.<sup>83</sup> The City Council of Gloucester also complained about immoral behavior occurring in their public shelters, but police were too short-handed to effectively combat the problem.<sup>84</sup> A juvenile court probation officer blamed problems of immorality on adolescents sleeping huddled together in the public shelters.<sup>85</sup>

Women, and their morality and plight, generally received special attention. The presence of women in shelters sometimes occasioned concern. Shelter wardens were

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<sup>78</sup> LMA: A/PMC/071, Public Morality Council, *Moral Conditions in Air Raid Shelters*, n.d.

<sup>79</sup> TNA: HO207/386, London Region Circular No. 385, *Training of Shelter Wardens*, June, 1941, 12.

<sup>80</sup> *ibid.*

<sup>81</sup> LMA: A/PMC/071, Isabel Thorpe to Mr. Tomlinson, November 11, 1940.

<sup>82</sup> LMA: A/PMC/071, Public Morality Council, *Other Complaints*, n.d.

<sup>83</sup> "Families Must Quit Ramsgate Tunnels Now," *Evening News*, March 8, 1941.

<sup>84</sup> "City Raid Shelters Are Problem for Police," *Gloucester Journal*, March 24, 1945.

<sup>85</sup> "Says Shelter Morals Lax," *Daily Mirror*, March 7, 1941.

specifically trained to deal with “special cases” of women, including prostitutes, “strays,” and women with children who were neglected.<sup>86</sup> Strays included runaways from homes or schools, stranded girls, and “generally wayward girls,” which, in all cases, required the involvement of the police to return the young women to their proper location.<sup>87</sup> When women ambulance drivers asked to be issued the men’s combination suit, which was more practical, instead of the traditional woman’s greatcoat, officials were initially reluctant, pointing to the resistance of Herbert Morrison and Lady Reading to female civil defense workers wearing trousers.<sup>88</sup> One official thought that the opposition to trousers was based on “the fundamental grounds of aesthetics” instead of practicality, however.<sup>89</sup> The Home Office eventually acquiesced, allowing female civil defense workers to wear uniform trousers, if their local authority approved.<sup>90</sup> Some worried that women wearing trousers, a much more common sight during the war as a result of women in the workforce and the civil defense services, negated their function as women and that the war would have been fought in vain were it to continue.<sup>91</sup> One vicar considered the wearing of trousers an “evil habit,” condemning the increasing practice on the basis of the Bible.<sup>92</sup> Others merely opposed women wearing trousers on the grounds of aesthetics, wishing a law could be enforced to end the practice.<sup>93</sup>

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<sup>86</sup> TNA: HO207/386, London Region Circular No. 385, *Training of Shelter Wardens!*, June, 1941, 12.

<sup>87</sup> *ibid*, 13.

<sup>88</sup> TNA: HO 186/26, *Minute Sheet*, October 10, 1939.

<sup>89</sup> *ibid*.

<sup>90</sup> “Uniform Trousers for Women in A.R.P.,” *The People*, July 20, 1941.

<sup>91</sup> “Masculine Women,” *Stirling Observer*, September 17, 1940.

<sup>92</sup> “Trousers for Women,” *Western Gazette*, August 25, 1939.

<sup>93</sup> Disgusted Woman, “Women in Trousers,” *Torquay Herald & Express*, October 28, 1939.



The persistent apathy among shelterers was a concern for the government. Apathy was particularly concerning because it undermined the civil defense principles of self-help and the upkeep of morale. One person complained that “the young industrialist in the Shelter is becoming the spiritual and mental antithesis of his brother in the Spitfire.”<sup>94</sup> The apathy among shelterers was also referred to as “dumb stoicism” and led to a lack of enthusiasm for the war and the necessary work that could threaten to undermine the war effort.<sup>95</sup> To combat this apathy, suggested one civilian, it was necessary to increase and improve the social amenities available in the shelters and to do this shelter space needed to be enlarged, as well.<sup>96</sup> The survey conducted by the LCETS found that lack of space for welfare activities and social life resulted in apathy and a deterioration of “gay courage into dumb stoicism [...]”<sup>97</sup>

While actual cases of improper behavior may have been isolated, concerns over immorality received widespread attention. So much so that the issue of shelter immorality was serious enough to be addressed by the House of Commons, although the Undersecretary of the Home Office reassured members that claims of immorality made by the Public Morality Council specifically had been greatly exaggerated.<sup>98</sup> Newspapers were quick to take up the cause and both the *Daily Mirror* and the *Evening Standard* published articles about immoral behavior occurring in shelters and the response needed

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<sup>94</sup> TNA: HO207/386, Head of the Oxford House to Councillor Key, April 9, 1941, 1.

<sup>95</sup> TNA: HO207/386, *A Report on Shelters & Youth enquiries*, 1941, 3.

<sup>96</sup> TNA: HO207/386, Head of the Oxford House to Councillor Key, April 9, 1941, 1.

<sup>97</sup> LMA: A/PMC/071, The Churches’ Committee on Gambling, *Youth in Air Raid Shelters*, March 1941, 1.

<sup>98</sup> United Kingdom, House of Commons, “Shelters,” *Parliamentary Debates*, No. 52, Vol. 371, 23 April 1941.

to combat the problem.<sup>99</sup> The *News Review* described moral conditions inside London's air raid shelters as horrifying and praised Bishop Godfrey Fisher, Chairman of the Public Morality Council, for his dedication to eradicating the problem.<sup>100</sup> Immorality was concerning not merely for its spiritual implications, but because a decay in morality was likely to impact public morale, in general.

Civilians, government officials, and the clergy were continuously attempting to combat these perceived problems. A Salvation Army officer claimed that immorality was an issue only in poorly-managed shelters, suggesting that close control and oversight were the solution.<sup>101</sup> The primary method to address vice was to alleviate boredom, as most officials and clergy believed that boredom was the main impetus for bad behavior.<sup>102</sup> A strong community spirit also aided the prevention of immorality.<sup>103</sup> In areas where a large proportion of one church's congregation sheltered together the impact of religion on shelter life was "bold and authoritative," ensuring good conduct and the absence of immorality.<sup>104</sup> The presence of good shelter wardens would control conduct and ensure a high standard of behavior in the shelters.<sup>105</sup> Additionally, an increased police presence could deter bad behavior and Scotland Yard formed an anti-vice squad of forty policewomen specifically to prevent immorality in or around air raid shelters.<sup>106</sup> An

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<sup>99</sup> "Immorality in Shelters," *Daily Mirror*, November 6, 1940; "'Code' to Clean up Shelters," *Evening Standard*, December 3, 1940.

<sup>100</sup> "Shelter Clean-Up," *News Review*, December 12, 1940.

<sup>101</sup> LMA: A/PMC/071, Salvation Army Officer to Mr. G. Tomlinson, January 21, 1941, 2.

<sup>102</sup> TNA: HO207/386, *An abbreviated Report on Shelter & Youth enquiries*, January 1941, 2.

<sup>103</sup> *ibid.*

<sup>104</sup> TNA: HO207/386, *A Report on Shelters & Youth enquiries*, 1941, 2.

<sup>105</sup> TNA: HO207/386, *An abbreviated Report on Shelter & Youth enquiries*, January 1941, 2.

<sup>106</sup> "Shelter Clean-Up," *News Review*, December 12, 1940; "Shelter Squad of Women Police," *Daily Mail*, December 3, 1940.

informal committee was formed to address social problems in shelters, made up of representatives of organizations such as the Church of London Temperance Society, the Church of England Moral Welfare Council, the Church Committee on Gambling, and the LCC.<sup>107</sup> The committee instituted a survey that asked youth about drinking, gambling, and sexual immorality in shelters and what could be done to combat this.<sup>108</sup> One vicar asked the LCC to convert his unsuitable church building into an air raid shelter to have all of his flock under his control, as the only alternative for the people was to shelter in small groups in nearby basements and brick shelters.<sup>109</sup> In one district the bothersome juveniles were given jobs to do to keep them occupied and out of trouble.<sup>110</sup> One group handed out pamphlets detailing the dangers and immorality of games of chance through the use of quotes and anecdotes in an attempt to combat gambling in the shelters.<sup>111</sup>

Religious ministration was one of the primary means of combating problems of behavior and morality. The Salvation Army ministered to the spiritual, temporal, and moral needs of those in the shelters, seeing the provision of refreshments to shelterers as a means to attend their spiritual and moral needs, as well.<sup>112</sup> The Baptist Union of Great Britain and Ireland saw in the shelter population a “good Christian opportunity of influencing them for moral or spiritual good.”<sup>113</sup> One Reverend claimed “opportunities in

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<sup>107</sup> TNA: HO207/386, Memorandum to Mrs. Atkinson, January 22, 1941, 1.

<sup>108</sup> TNA: HO207/386, G.R.R. Martin, *Shelters & Youth*, January 1941.

<sup>109</sup> TNA: HO 207/706, Frank Bennett, “Borough of Lambeth, Holy Trinity Institute, Royal Street,” March 17, 1941, 2.

<sup>110</sup> LMA: A/PMC/071, Bermondsey Shelter Council for Social Activities, January 27, 1941, 5.

<sup>111</sup> LMA: A/PMC/071, E. Benson Perkins, *Any Luck? Wit and Wisdom on the Ways of Chance* (London: Guardian Press, n.d.).

<sup>112</sup> LMA: A/PMC/071, The Salvation Army, *Service in Air Raid Shelters*, 1941, 1.

<sup>113</sup> LMA: A/PMC/071, Baptist Union of Great Britain and Ireland to Public Morality Council, January 20, 1941.

Shelters are unbounded,” but cautioned his colleagues to first make the people “God-conscious.”<sup>114</sup> The Church Army’s slogan was “Prayer in every Shelter every night” and they issued a pamphlet with prayers specifically intended to uplift the spirit of those in shelters.<sup>115</sup> A Conference of Clergy met specifically to address how to make the best use of spiritual opportunities in public shelters. One Reverend boasted of the success of church services in shelters, explaining how in one shelter a group of men who regularly played cards would drop their game when the service began to join in the singing and prayer.<sup>116</sup> The Derby Christian Social Council saw religious intervention as a means to combat rising juvenile crime rates, suggesting that a more vital interest in Sunday School work and wiser and stricter guidance in the home could solve the problem.<sup>117</sup>

Children, as a particularly vulnerable group, presented a pressing concern to both government and civilians alike prior to the outbreak of war. Despite the issue of gas masks and provision of shelters for the population, the remaining risk to children from air raids was still considered unacceptable. Casualties were inevitable in war and even those children who were not harmed directly by raids would nevertheless suffer from the strains of war-time living. The best solution to protect vulnerable children in urban areas likely to be bombed seemed to be an extreme form of dispersal—to evacuate them to safer locations. The government’s evacuation program aimed to remove school-aged children from big cities, such as London or Birmingham, and send them to live with

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<sup>114</sup> LMA: A/PMC/071, Clergy Conference Held at Church Army Headquarters, “Spiritual Opportunities in Tube Stations and Public Shelters,” January 22, 1941, 4.

<sup>115</sup> LMA: A/PMC/071, Clergy Conference Held at Church Army Headquarters, “Spiritual Opportunities in Tube Stations and Public Shelters,” January 22, 1941, 1; Church Army, *Suggested Prayers in the Shelter & At Home* (Oxford: Church Army Press, n.d.).

<sup>116</sup> LMA: A/PMC/071, Clergy Conference Held at Church Army Headquarters, “Spiritual Opportunities in Tube Stations and Public Shelters,” January 22, 1941, 2.

<sup>117</sup> LMA: A/PMC/071, Derby Christian Social Council, “Juvenile Crime,” n.d.

volunteer families in rural areas of the country. While the evacuation program came into action almost immediately upon the declaration of war in September 1939, its overall success is difficult to determine.<sup>118</sup>

Evacuation was under consideration even before the outbreak of war. The idea was part of the government's larger policy of dispersal and proposed removing large parts of the population from zones of danger in the case of war. Parliament, the press, government officials, and the public at large considered whether evacuation was feasible and to what extent. As early as 1925 the CID considered solutions to limit damage from air raids in London and concluded that, although those vital to maintaining the city's activities should remain, arrangements ought to be made to evacuate "the unnecessary mouths."<sup>119</sup> A committee formed in 1938 to specifically address the idea of evacuation similarly concluded that in order to ensure the continuance of the national war effort and supply essential civilian needs, the large industrial towns needed to be maintained, but that evacuation should be considered for non-essential parts of their populations.<sup>120</sup> For the

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<sup>118</sup> For a more detailed look at Britain's evacuation scheme see John Welshman, *Churchill's Children: the evacuee experience in wartime Britain* (Oxford: Oxford University Press, 2010); Travis Crosby, *The impact of civilian evacuation in the Second World War* (London: Croom Helm, 1986); Jessica Mann, *Out of harm's way* (London: Headline, 2014); Julie Summers, *When the children came home: stories from wartime evacuees* (London: Simon & Schuster, 2011); Edward Stokes, *Innocents abroad: the story of British child evacuees in Australia, 1940-1945* (St. Leonards, NSW, Australia: Allen & Unwin, 1994); Mike Brown, *Evacuees: Evacuation in Wartime Britain, 1939-1945* (New York: The History Press, 2013).

There are also many published memoirs and recollections of former child evacuees, including Doreen Lehr, *A Girls War: A Childhood Lost in Britain's WWII Evacuation* (Charleston, SC: Advantage Media Group, 2010); Gillian Mawson, *Evacuees: Children's Lives on the WW2 Home Front* (Casemate Publishers, 2014); Janice Anderson, *Children of the war years: childhood in Britain during 1939 to 1945* (London: Futura, 2008); Christina Rex, *Children's voices of the Second World War: doodlebugs, gas masks & gum* (Stroud: Amberley, 2015).

<sup>119</sup> TNA: CAB 24/171, Committee of Imperial Defence, Sub-Committee on Air Raid Precautions, *Report*, July 8, 1925, 13.

<sup>120</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 6.

purposes of evacuation the country was divided into three categories: Evacuation Areas, the most congested industrial areas in danger of attack, Neutral Areas, less congested areas not to be evacuated but not suited for receiving evacuees, and Reception Areas where evacuees were to be billeted.<sup>121</sup> Three groups qualified for evacuation under the government scheme: schoolchildren, who were to be accompanied by their teachers, pre-school aged children accompanied by their mothers or other women, and adult blind or handicapped persons.<sup>122</sup> At the time of the September Crisis in 1938 hasty plans were made for evacuation, which were then extended or replaced by much more detailed plans in the intervening year before the outbreak of war.<sup>123</sup>

At the outbreak of war evacuation was to follow a set plan. The government eventually established three evacuation plans to cover all schoolchildren, as well as mothers with young children, although the initial wave of evacuation only dealt with schoolchildren. Plan V, also referred to as “the Trickle,” evacuated school-aged children to billets in reception areas.<sup>124</sup> Plan VII transported mothers and young children through the government’s scheme, while Ev. 10 allowed mothers and children to evacuate to self-selected billets, such as a relative’s house, using railroad vouchers.<sup>125</sup> Emergency food rations were to be issued or sent forward to last each evacuee 48 hours, to ensure that the receiving area’s strictly-rationed food supply was not overwhelmed until proper supplies

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<sup>121</sup> *ibid.*

<sup>122</sup> *ibid.*

<sup>123</sup> TNA: CAB 16/190, Committee of Imperial Defence, *Report of Conference to consider Departmental Reviews of Precautionary Measures (Civil Defence) taken during the Czecho-Slovakian Crisis, September 1938, Part II, Appendices*, “Enclosure A, Air Raids Precaution, Evacuation of the Civilian Population (Scotland),” November 14, 1938, 40; “Evacuation of Towns,” *Aberdeen Press and Journal*, June 19, 1939.

<sup>124</sup> LMA: EO/WAR/1/48, The Chairman of the Education Committee, October 1940, 1.

<sup>125</sup> *ibid.*

could be allocated.<sup>126</sup> Each child evacuee received a bag containing one can of meat, two cans of milk, one packet of biscuits, and a quarter pound of chocolate.<sup>127</sup> Adults were issued the same supplies, plus an extra can of meat, and were instructed to rely on the emergency rations for the first few days in the reception area.<sup>128</sup> A particular problem for the evacuation scheme were children under school age whose mothers could not accompany them. Mothers could send their young children with another woman willing to look after them, who would qualify for the same lodging benefits as the mother, or they could apply for one of the very limited spaces in a country nursery.<sup>129</sup> To register for evacuation parents were asked to contact the child's school, or, if the mother planned to evacuate, as well, to register at an emergency rest center.<sup>130</sup> For each child the government paid the receiving householder between eight shillings sixpence and 15 shillings, depending on the age of the child.<sup>131</sup> Parents were obligated to pay six shillings a week per evacuated child, although this fee was adjusted based on means.<sup>132</sup> Similarly, for mothers evacuating with their children, a lodging allowance would be paid to the householder taking them in, although such lodgers were generally expected to supply their own food.<sup>133</sup> Parents were also asked to supply their children with boots, clothing,

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<sup>126</sup> TNA: MAF 72/30, Advisory Committee on Evacuation, *Draft of a General Memorandum on the Government Evacuation Scheme*, n.d., 13-15.

<sup>127</sup> TNA: MAF 72/30, Food Defence Plans Department, "F.D. 1839/38," 1939, 1.

<sup>128</sup> *ibid.*

<sup>129</sup> LMA: EO/WAR/1/48, Ministry of Health, *Government Evacuation Scheme, Notes for Visitors* (London: HMSO, 1940), 2.

<sup>130</sup> LMA: EO/WAR/1/48, Ministry of Health, *Government Evacuation Scheme, Important Notice to Mothers* (London: HMSO, 1940), 2.

<sup>131</sup> LMA: EO/WAR/1/48, Ministry of Health, *Government Evacuation Scheme, Notes for Visitors* (London: HMSO, 1940), 1.

<sup>132</sup> *ibid.*

<sup>133</sup> LMA: EO/WAR/1/48, Ministry of Health, *Government Evacuation Scheme, Important Notice to Mothers* (London: HMSO, 1940), 2.

and little necessities before sending them off, but children whose parents could not afford to do so were outfitted by the government and through charities, such as the WVS.<sup>134</sup> Parents were allowed to visit their children, although they were encouraged to let the children settle in and not to visit too often as not to clog up the roadways and railways vital to the war effort.<sup>135</sup> A fourth evacuation scheme, the Bombed Babies Scheme, dealt with the evacuation of children being discharged from hospitals who normally resided in an evacuation area. Unlike the other schemes, which were entirely voluntary, by 1941 a regulation empowered authorities in evacuation areas to order the removal from the area any child “suffering in mind or body as a result of hostile attacks or is in such a state of health as to be likely to suffer if he remains in that area.”<sup>136</sup> Officials would strongly encourage the parents of injured children to consent to evacuation, either with the school class in the case of school-aged children or with a nursery party in the case of unaccompanied younger children.<sup>137</sup>

The benefits of evacuation, for children especially, were plentiful. Removing children from areas likely to be bombed was the best solution to providing safety. Shelters, not immune to direct hits, could not only not guarantee safety, but offered poor living conditions. Removing the children from danger would also allow parents to avoid worrying about their safety, ensuring they could focus their full attention on supporting the war effort. Evacuation was a particularly potent argument when it came to the “bombed babies,” or children who were in the hospital as a result of enemy action.

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<sup>134</sup> LMA: EO/WAR/1/48, Ministry of Health, *Government Evacuation Scheme, Notes for Visitors* (London: HMSO, 1940), 1.

<sup>135</sup> *ibid.*

<sup>136</sup> LMA: EO/WAR/2/19, *Civilian casualties discharged from hospital, 1941*, 1.

<sup>137</sup> *ibid.*, 2.



Government officials were anxious that such children, especially those sent to recover outside of evacuation areas, not return to the dangerous cities and instead be evacuated.<sup>138</sup> Besides safety, evacuation was touted as providing several other benefits to children. Health and well-being of children was a popular talking point for those advocating evacuation and was reiterated consistently by the evacuation propaganda material. The fresh country air was seen as beneficial to children living in crowded cities.<sup>139</sup> Shelter living, with its associated lack of fresh air, sunlight, restful sleep, and risk of disease, was considered a serious hazard to the health of children and evacuation was offered as the alternative.<sup>140</sup> A 1941 Ministry of Information pamphlet claimed that “practically all the [evacuated] children have improved in physique, general health, poise and bearing [...]” during their stay in the reception area.<sup>141</sup> Such an improvement was attributed to the fresh air, as well as increased availability of fruit and vegetables.<sup>142</sup>

Education was another benefit of evacuation. While schooling in urban cities, and London in particular, was severely interrupted, children could continue full-time school work in the reception areas.<sup>143</sup> Despite the LCC’s attempts to keep schools open if some attendance could be achieved, many schools in the five boroughs and the City had to be closed.<sup>144</sup> LCC officials estimated that only one out of six London children were

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<sup>138</sup> LMA: EO/WAR/2/19, London Education Officer to Ministry of Health, “Government Evacuation Scheme,” January 22, 1941, 1.

<sup>139</sup> LMA: EO/WAR/1/48, “At the present time it is estimated that,” October 1940, 3.

<sup>140</sup> LMA: EO/WAR/1/48, The Chairman of the Education Committee, October 1940, 1.

<sup>141</sup> LMA: EO/WAR/5/18, Ministry of Information, *The Schools in Wartime* (London: HMSO, 1941), 9.

<sup>142</sup> *ibid.*

<sup>143</sup> LMA: EO/WAR/1/48, “At the present time it is estimated that,” October 1940, 3.

<sup>144</sup> LMA: EO/WAR/1/48, The Chairman of the Education Committee, October 1940, 1-2.

attending school and those schools that were open averaged fewer than fifty pupils.<sup>145</sup> Additionally, the reduced school hours of twenty per week were even further diminished by air raid alarms that would see pupils and teachers huddle in shelters for hours a week without educational instruction.<sup>146</sup> A pamphlet designed to convince mothers to evacuate their children told readers that “it is not fair” for children to go without education or fresh air and uninterrupted sleep.<sup>147</sup> Evacuating the children was also said to make life easier for those remaining. There would be more spaces in shelters and less food, fuel, and care would be needed for those remaining in the city.<sup>148</sup> Citing these benefits of evacuation was not only intended to convince parents of evacuating their children, but also assured them they need not worry. Dispersal, intending to reduce mass casualties and preserve morale, was even more important in the case of children, whose deaths were likely to negatively affect morale across society. Thus evacuating and protecting British children was another means by the government to ensure the preservation of civilian morale.

The press supported the evacuation scheme by publishing articles and pictures of evacuated children enjoying their new surroundings. *The Sphere* depicted evacuated London children enjoying an exercise session on the beach and roaming the woods and fields in Devonshire.<sup>149</sup> *The Scotsman* pictured smiling evacuees playing in a cornfield and reassured readers that the children were settling down happily.<sup>150</sup> A writer for the *Coventry Herald* argued that, although six months after evacuation many people

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<sup>145</sup> *ibid*, 2.

<sup>146</sup> *ibid*.

<sup>147</sup> LMA: EO/WAR/1/48, Ministry of Health, *Government Evacuation Scheme, Important Notice to Mothers* (London: HMSO, 1940), 1.

<sup>148</sup> *ibid*.

<sup>149</sup> “New Homes for Young Children,” *The Sphere*, August 24, 1940.

<sup>150</sup> “Happy Child Evacuees,” *The Scotsman*, September 4, 1939.

considered the scheme a failure, evacuation had had positive benefits. Not only were the children safe, but they were improving in knowledge, outlook, experience, and health.<sup>151</sup> Country life was said to have a remarkable effect on the children's physiques.<sup>152</sup> The *Newcastle Evening Chronicle* showed evacuated local children happily smiling at the camera surrounded by nature, while one of them held a dog.<sup>153</sup> An official government pamphlet, issued by the Ministry of Information, was similarly reassuring, depicting evacuated children frolicking in hay, helping out with farm work, receiving education, playing in nature, and cuddling with farm animals.<sup>154</sup>

Complaints about evacuation were nevertheless plentiful. Evacuation was hugely unpopular among the population. Parents who did evacuate their children were sometimes criticized by their neighbors.<sup>155</sup> As the initial evacuation scheme only covered schoolchildren, many doubted the government's sincerity, questioning why younger children were not included, as well.<sup>156</sup> Evacuation officials also believed that parents had a false sense of security as a result of Anderson shelters and balloon barrages, but feared that compulsory evacuation would breed resentment and would be opposed by the people.<sup>157</sup> Evacuation officers estimated that as many as 80% of parents in London would refuse to evacuate their children if the scheme were made compulsory.<sup>158</sup> The Minister of Health, although a proponent of compulsory evacuation, argued that forcing parents to

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<sup>151</sup> "Has Evacuation Scheme Failed?" *Coventry Herald*, March 2, 1940.

<sup>152</sup> *ibid.*

<sup>153</sup> "Gateshead Children in Cheery Mood," *Newcastle Evening Chronicle*, September 8, 1939.

<sup>154</sup> LMA: EO/WAR/5/18, Ministry of Information, *The Schools in Wartime* (London: HMSO, 1941).

<sup>155</sup> LMA: EO/WAR/1/48, *Compulsory Evacuation*, 1940, 1.

<sup>156</sup> *ibid.*

<sup>157</sup> *ibid.*

<sup>158</sup> *ibid.*, 3.

evacuate their children would seriously impair the morale of the population.<sup>159</sup> Some people were wary about evacuation because of rumors that empty homes with furniture would be commandeered by the government for billeting purposes, and the furniture sold.<sup>160</sup> While school-aged children were evacuated with their school class, younger children could not be evacuated on their own. Mothers were encouraged to evacuate with their young children, although, many women were reluctant to leave behind husbands, older children, or other relatives who required their assistance.<sup>161</sup>

With tensions rising in Europe, the evacuation scheme was put into motion two days before the outbreak of war. On September 1<sup>st</sup>, 1939, the government evacuation scheme came into effect and immediately required the transport of one and a half million people across the country, more than half of them children.<sup>162</sup> Evacuation was mostly completed in two to three days, suggesting the detailed plans created after the crisis in 1938 had been successful.<sup>163</sup> In London, the scheme evacuated 286,000 people on day one, 192,000 on day two, and over 100,000 on day three.<sup>164</sup> While tens of thousands of people were evacuated under the scheme, things did not always go smoothly.

Transportation was complicated, particularly outside of London, and some schools found themselves in remote locations with no local schools or education supplies, while other schools were split up across several small villages.<sup>165</sup> Many of the receiving areas, rural

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<sup>159</sup> LMA: EO/WAR/1/48, London County Council, Education Officer's Department, *Government Evacuation Scheme*, 1940, 1.

<sup>160</sup> LMA: EO/WAR/1/48, Divisional Officer, *Evacuation Publicity Campaign*, November 2, 1940.

<sup>161</sup> LMA: EO/WAR/1/48, "At the present time it is estimated that," October 1940, 3.

<sup>162</sup> LMA: EO/WAR/5/18, Ministry of Information, *The Schools in Wartime* (London: HMSO, 1941), 4.

<sup>163</sup> *ibid.*

<sup>164</sup> LMA: EO/WAR/1/48, The Chairman of the Education Committee, October 1940, 1.

<sup>165</sup> LMA: EO/WAR/5/18, Ministry of Information, *The Schools in Wartime* (London: HMSO, 1941), 4.

locations with small resident populations, had school accommodations only sufficient for local children.<sup>166</sup> Officials thus spent weeks moving schools, re-billeting children, sending books and equipment, and pressing into service halls, large houses, and other buildings to serve as school rooms.<sup>167</sup>

Finding places to billet the children and adults accompanying them was not always easy, either. Some women and children evacuated to a Scottish town found themselves bunked in a large hall with sacks of straw and jail mattresses as bedding, because the huts intended for them were not yet available.<sup>168</sup> Finding billets for mothers and their young children was particularly difficult and the LCC considered the initial 1939 evacuation of this group a failure due to the lack of skilled social workers to assist the receiving authorities.<sup>169</sup> Mothers were said to present the biggest billeting problem, as they were often unhappy and prone to upset the householder of their billet. Many returned home to their husbands in the danger areas, taking their children with them.<sup>170</sup> Some groups of people, such as the aged and infirm, invalids, the mentally disabled, and the blind, were considered unsuitable for billeting with private householders and required hostels or institutions in the reception area.<sup>171</sup> Schoolchildren who were physically disabled, behaved poorly, or were of difficult character were also not to be billeted in private homes.<sup>172</sup> Some civilians suggested making use of the unused country homes of the

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<sup>166</sup> *ibid.*

<sup>167</sup> *ibid.*, 6.

<sup>168</sup> "Mr Campbell Steven, Women and Children in Hall at Inveraray," *The Scotsman*, September 15, 1939.

<sup>169</sup> LMA: EO/WAR/1/48, Letter to Sir George Gater, October 18, 1940, 2.

<sup>170</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 7.

<sup>171</sup> *ibid.*

<sup>172</sup> *ibid.*

wealthy to accommodate evacuated children. One owner of such a house, however, argued that there was not enough domestic staff to look after children, that the government billet fee was too small, and that “the cottage is more suitable than the castle for billeting purposes.”<sup>173</sup>

The government invested heavily in several publicity campaigns to solve this problem. The Ministry of Information created posters and advertisements intended to tug at the heartstrings of potential foster mothers, convincing them of the vital part they could play in the war effort. Such advertisements mentioned the safety of the children, their improved health and behavior, and the gratitude of parents and the government towards the foster mothers.<sup>174</sup> Taking in evacuated children was touted as “splendid service to the nation.”<sup>175</sup> While the National Service Campaign recruited volunteers for civil defense jobs, caring for evacuated children was also advertised as “real National Service.”<sup>176</sup> Householders who took in evacuated children were thus reassured that this represented a vital contribution to the war effort and the nation. The Ministries of Information and Health also published a booklet describing the difficulties of billeting and suggested ways of overcoming these problems. The booklet mentioned three primary difficulties in billeting evacuees: a hesitation among the population to accept evacuees, a bad atmosphere that had sometimes developed between hostess and the evacuee mother, and a lack of volunteers for the many services<sup>177</sup> required to take care of the evacuees.

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<sup>173</sup> D.G. Greig, “Points of View; Evacuation, 1940,” *The Scotsman*, March 2, 1940.

<sup>174</sup> LMA: EO/WAR/5/20, Evacuation Advertising.

<sup>175</sup> LMA: EO/WAR/5/20, Evacuation Advertising, “Someone here is going to need your help,” n.d.

<sup>176</sup> *ibid*, “Caring for this boy is real National Service,” n.d.

<sup>177</sup> LMA: EO/WAR/5/19, Ministry of Health and Ministry of Information, *Publicity to assist in The Problem of Billeting*, 1941, 2.

overcome these problems the booklet suggested breaking down the resistance among the population in regard to evacuees, bringing the hostess and evacuee mother together to make them see each other's point of view, and making people in receiving areas conscious of their responsibilities.<sup>178</sup> To achieve this, solutions were sought by using different avenues of publicity intended to saturate the receiving areas. Press advertising was one of the easiest means of reaching local populations and evacuation advertisements were specifically aimed at breaking down resistance to billeting and creating a better feeling between parties.<sup>179</sup> Other advertisements sought to recruit volunteer social workers and other helpers, such as leaders of sewing parties and staff to man communal feeding centers.<sup>180</sup> Additionally, local meetings were advocated as a means of breaking down resistance.<sup>181</sup> The local press was encouraged to support the campaign by writing articles that emphasized the danger of leaving children in crowded and bombed areas, as well as by directing columns and articles directly at improving the atmosphere between hosts and evacuees.<sup>182</sup>

Unaccompanied children under five, however, presented the greatest problem. These children were too young to be evacuated alone and, without their mother to accompany them, they required adult supervision. Evacuated residential nurseries were set up to take in these children, but space was extremely limited.<sup>183</sup> Such nurseries for children under five were run by the British Red Cross or the WVS and took in children

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<sup>178</sup> *ibid.*

<sup>179</sup> *ibid.*, 4.

<sup>180</sup> *ibid.*, 7-13.

<sup>181</sup> *ibid.*, 17.

<sup>182</sup> *ibid.*

<sup>183</sup> LMA: EO/WAR/2/19, Education Officer's Department, *Minute to The District Care Organisers*, September 27, 1941.

according to their priority class.<sup>184</sup> Children were classed under different priority groups, with Priority 1 cases having been actual air raid casualties, while Priority 2 children were suffering due to air raids but had not been actual casualties.<sup>185</sup> By 1942 there were 390 nursery parties and 12,000 total cots available for unaccompanied children between the ages of two and five.<sup>186</sup> The WVS was particularly involved in taking care of the under-fives, keeping track of the over 28,000 who were sent to nurseries in the country and running three receiving centers in London, where children were examined and outfitted before being sent on.<sup>187</sup>

The negative opinion of evacuation among the public did not change even after several months of successful evacuations. Many parents were refusing to evacuate their children and officials began a campaign to stimulate interest in evacuation. In London, in particular, officers aimed to make nightly visits to public shelters and daytime visits to homes and public gatherings, such as queues.<sup>188</sup> Home visits were believed to be more fruitful and London's dispersal officers aimed to make visits to all homes in each borough where children might be living.<sup>189</sup> In the County of London, officers were able to reach over 134,000 parents, but only around 30,000 agreed to register for evacuation after being spoken to.<sup>190</sup> Over 20,000 refused outright and gave no reason, but many refused to register their children because other family members, such as older children,

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<sup>184</sup> LMA: EO/WAR/2/19, G.A.N. Lowndes to P.M. Middlemiss, November 12, 1941.

<sup>185</sup> LMA: EO/WAR/2/19, G.A.N. Lowndes to Mr. Frankau, April 19, 1941, 1.

<sup>186</sup> LMA: EO/WAR/2/19, G.A.N. Lowndes to P.M. Middlemiss, August 26, 1942, 1.

<sup>187</sup> TNA: MAF 102/12, Women's Voluntary Services, *Mid-Summer Bulletin*, July 1944, 6.

<sup>188</sup> LMA: EO/WAR/1/48, London County Council Education Officer's Department, *Government Evacuation Scheme*, October 24, 1940, 1.

<sup>189</sup> *ibid.*

<sup>190</sup> LMA: EO/WAR/1/48, Government Evacuation Scheme, Metropolitan Evacuating Area, Campaign of Personal Visitation, Schedule for Classification of Results, County of London, n.d.



grandparents, and fathers, were not eligible to go.<sup>191</sup> Nearly 18,000 refused as a result of an earlier unsatisfactory evacuation.<sup>192</sup> Other parents believed London was just as safe as elsewhere in the country, while some did not trust strangers with their children.<sup>193</sup> The Bombed Babies scheme suffered not only from a lack of available space, but the whole process was much too slow to prevent injured children from being returned to a dangerous area.<sup>194</sup> The process could often take weeks during which the child recovered and was either returned home or took up a valuable hospital bed.<sup>195</sup> A rumor that evacuated children were being asked to fight fires caused by incendiary bombs in agricultural fields worried some parents, although officials were quick to reassure the public that this was not the case.<sup>196</sup> Those parents with the means to avoid government evacuation paid their children's way to a safer location, many as far away as America, Australia, and Canada.<sup>197</sup> Other parents bought weekend cottages in the countryside or in Wales to evacuate themselves and their children to safety.<sup>198</sup>

There were also consistent complaints about the children themselves. Children evacuated from Glasgow were reported to have arrived at the receiving area in a "verminous condition."<sup>199</sup> In another area, both mothers and children were accused of

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<sup>191</sup> *ibid.*

<sup>192</sup> *ibid.*

<sup>193</sup> *ibid.*

<sup>194</sup> LMA: EO/WAR/2/19, W. Allen Daley to Education Officer (Evacuation), "Evacuation of Children under 5 from Children's Hospitals," September 17, 1942.

<sup>195</sup> *ibid.*

<sup>196</sup> "Evacuees Merely Collect Twigs to Fight Fires," *Newcastle Journal and North Mail*, July 16, 1941.

<sup>197</sup> IMW: Ministry of Information Second World War Press Agency Print Collection, HU 36233; HU 69007; IMW: Canadian Second World War Official Collection, The Evacuation of British Children to Canada During the Second World War, Photographs.

<sup>198</sup> IMW: Documents.17427, Private Papers of John McCann, 8.

<sup>199</sup> "Complaints of Condition of Glasgow Children," *The Scotsman*, September 15, 1939.

arriving in dirty and verminous states to the point where mattresses they had used needed to be destroyed.<sup>200</sup> Elsewhere the children were not only verminous upon arrival, but some of them also had “unsatisfactory house habits.”<sup>201</sup> Some children were also accused of being ill-clad, undisciplined, and unhealthy, suffering from scabies, impetigo, and other skin diseases supposedly brought on by dirt and lack of good food.<sup>202</sup> Their behavior was also shocking to those receiving them, as they swore, lied, pilfered, refused to sit down for meals, failed to use cutlery, or even asked for beer.<sup>203</sup> One writer considered the discovery of verminous and ill-trained children a national blemish, but suggested that in this case war had rendered a service in allowing the country to fix this problem.<sup>204</sup> A minister called for severe penalties for parents who allowed their children to become verminous and who refused to clean their homes.<sup>205</sup> Some officials, however, thought the claims of dirty children had been greatly exaggerated. The Secretary of State for Scotland considered the idea that almost no child left its home in a clean state to be nonsense, although he conceded that there certainly had been some cases of children arriving at their billets in filthy condition.<sup>206</sup> One reverend was appalled to hear that some towns were refusing evacuees because of the rumors of vermin, explaining that while some children had arrived in filthy condition they were not the majority.<sup>207</sup> He suggested

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<sup>200</sup> *ibid.*

<sup>201</sup> “Children and Slums, Points from the Evacuation Problem,” *Surrey Advertiser and County Times*, January 20, 1940.

<sup>202</sup> “Disclosures of Evacuation,” *Somerset County Herald*, March 25, 1944.

<sup>203</sup> *ibid.*

<sup>204</sup> “Those Verminous Children,” *North-Eastern Gazette*, October 10, 1939.

<sup>205</sup> East Side Minister, “Points of View; The Evacuation Scheme,” *The Scotsman*, September 16, 1939.

<sup>206</sup> “Mr Colville Reassurance in Regard to Verminous Children,” *The Scotsman*, September 15, 1939.

<sup>207</sup> Rev. George Sutherland, “Points of View; The Evacuation Scheme,” *The Scotsman*, September 16, 1939.

that remedying the problem was as simple as water, carbolic ointment, and patience.<sup>208</sup>

While the majority of the hundreds of thousands of evacuees were clean and well-behaved, there certainly were cases of vermin and disease, some serious enough to involve the police. Two Glasgow parents were sentenced to six months imprisonment after the evacuated mother and her three children had been sent home from the receiving area for being in a verminous and filthy state.<sup>209</sup>

While the government successfully evacuated hundreds of thousands of children, the program was not entirely successful in protecting vulnerable populations. Between the start of evacuation in September 1939 and the first intense bombing raids on Britain almost a whole year passed, leading many civilians to believe there was no need for evacuation. By October 1940, about 300,000 London schoolchildren had been evacuated by the government or through private means, while evacuated mothers with young children numbered over 100,000.<sup>210</sup> During this period before intense bombing began, however, half of all children evacuated with their school parties and nearly all children evacuated with their mothers returned home.<sup>211</sup> Some mothers had returned within just a month of being evacuated.<sup>212</sup> While many returned because of a lack of perceived danger in the evacuation areas, others were dissatisfied with conditions in the reception areas.<sup>213</sup> Some were said to have become “fed-up with country life.”<sup>214</sup> For many parents the lack of serious raids and the desire to have their children with them ultimately overcame the

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<sup>208</sup> *ibid.*

<sup>209</sup> “Neglected Children,” *The Scotsman*, November 16, 1939.

<sup>210</sup> LMA: EO/WAR/1/48, “At the present time it is estimated that,” October 1940, 1.

<sup>211</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 7.

<sup>212</sup> “Has Evacuation Scheme Failed?” *Coventry Herald*, March 2, 1940.

<sup>213</sup> Ministry of Home Security, *Civil Defence in the United Kingdom* (London: HMSO, 1942), 7.

fears that had led them to evacuate the children in the first place.<sup>215</sup> A large number of children returned home when, at the end of October 1939, the parents' first monetary billeting contribution came due.<sup>216</sup> London was the primary focus of evacuation schemes and ultimately had the most people evacuated, but cities across Britain sent their vulnerable populations to safer areas. In Scotland, a total of 175,000 people were evacuated in 1939, most of them children.<sup>217</sup>

Interest in evacuation, and consequently the numbers of evacuees, rose and fell depending on the perceived danger in big cities. All evacuation areas saw a slow trickle of returnees almost immediately after evacuation had begun. By the end of 1939 only about 63% of those who had evacuated remained in the reception areas and by April of the next year only 300,000 evacuee children were still in the country.<sup>218</sup> Authorities estimated that roughly over 120,000 school children had remained in London, although the start of the Blitz a month prior had again increased the interest in evacuation.<sup>219</sup> Additionally, the German invasion of the Low Countries and France increased the threat of air attack and invasion and also meant that some areas previously categorized as reception areas were now evacuation areas.<sup>220</sup> Roughly 17,000 mothers and children were evacuated weekly from London under all schemes at the start of October, but even at that rate officials worried full evacuation of vulnerable children would take several months.<sup>221</sup>

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<sup>214</sup> "Fed-Up with Country Life," *Berwickshire News*, September 19, 1939.

<sup>215</sup> "Has Evacuation Scheme Failed?" *Coventry Herald*, March 2, 1940.

<sup>216</sup> *ibid.*

<sup>217</sup> "Mr Colville Reassurance in Regard to Verminous Children," *The Scotsman*, September 15, 1939.

<sup>218</sup> LMA: EO/WAR/5/18, Ministry of Information, *The Schools in Wartime* (London: HMSO, 1941), 6.

<sup>219</sup> LMA: EO/WAR/1/48, The Chairman of the Education Committee, October 1940, 1.

<sup>220</sup> LMA: EO/WAR/5/18, Ministry of Information, *The Schools in Wartime* (London: HMSO, 1941), 6.

<sup>221</sup> LMA: EO/WAR/1/48, The Chairman of the Education Committee, October 1940, 1.

The LCC urged another propaganda campaign to convince those parents unwilling to evacuate their children, but London's Dispersal Officers thought the public had reached their saturation point with evacuation publicity.<sup>222</sup> Also, the reception areas were also not immune from air raids and many lacked shelter facilities, making parents cautious about sending their children.<sup>223</sup> Again several hundred evacuated schoolchildren returned to London per week in October 1940, worrying officials.<sup>224</sup> Some considered ordering the railroad authorities not to carry children from reception areas to the cities without a certificate signed by a responsible local official.<sup>225</sup> By the end of 1940 the number of children in evacuation areas had again risen to 620,000, although this was still well below the numbers officials would have liked.<sup>226</sup> The introduction of the flying bomb in 1944 again increased the interest in evacuation. On July 1<sup>st</sup>, shortly after the first buzzbombs fell on London, children and mothers were again urged to evacuate and applications for unaccompanied under-fives rose dramatically.<sup>227</sup> The advent of this new weapon also led to the inclusion in the evacuation scheme of a new group, the elderly, select cases of whom were sent from London to special hostels.<sup>228</sup> The knowledge that the rich had sent their children to safety across the Atlantic led to calls of unfairness and this, coupled with a growing threat of German invasion, led the government to form the Children's Overseas

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<sup>222</sup> LMA: EO/WAR/1/48, Letter to J.C. Wrigley, "Overnight Evacuation Scheme," October 16, 1940, 1.

<sup>223</sup> LMA: EO/WAR/1/48, "At the present time it is estimated that," October 1940, 3.

<sup>224</sup> LMA: EO/WAR/1/48, Letter to Sir George Gater, October 18, 1940, 2.

<sup>225</sup> *ibid.*

<sup>226</sup> LMA: EO/WAR/5/18, Ministry of Information, *The Schools in Wartime* (London: HMSO, 1941), 7.

<sup>227</sup> TNA: MAF 102/12, Women's Voluntary Services, *The Bulletin*, No. 58, August 1944, 3.

<sup>228</sup> TNA: MAF 102/12, Women's Voluntary Services, *The Bulletin*, No. 61, November 1944, 7.

Reception Board (CORB) in 1940.<sup>229</sup> This scheme intended to evacuate children to safer overseas locations, primarily to the Dominion countries of Canada, Australia, New Zealand, and South Africa.<sup>230</sup> The program lasted only a few months before a ship carrying evacuees to Canada was torpedoed and sunk, costing the lives of over 70 children.<sup>231</sup> The public outcry and the blame directed at the government and CORB led to the abandonment of the scheme and ultimately fewer than 3,000 children were evacuated under the program.<sup>232</sup> Despite the various evacuation schemes many children remained in, or returned to, urban areas that ultimately saw extensive air raids.

Officials consistently complained that there were too many children in London shelters. One report argued that children's parties in shelters were to be "deplored," as it would only encourage parents with evacuated children to retrieve them in order to take part in such events.<sup>233</sup> While some Christmas festivities were allowed in public shelters, officials urged that there be no reference to children's Christmas parties so as to avoid encouraging parents who kept their children in domestic shelters from bringing them into the public shelter.<sup>234</sup> Unofficial parties occurred nevertheless, and 11,000 toys were distributed to shelter children on Christmas Day 1940.<sup>235</sup> Children living in shelters were sometimes described as neglected, as families spent as much time as possible in the

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<sup>229</sup> "Evacuation Scheme, 20,000 Children for the Dominions," *Birmingham Mail*, June 20, 1940; "20,000 Children Will Find Safety Overseas," *Dundee Courier*, June 20, 1940.

<sup>230</sup> "Children Go Overseas," *Liverpool Daily Post*, June 20, 1940; "Children to Empire Plan," *Daily Mail*, June 20, 1940.

<sup>231</sup> "On Torpedoed 'City of Benares'," *West London Press*, September 27, 1940.

<sup>232</sup> "Sevacuation May Stop for Winter," *Daily Record and Mail*, September 24, 1940; "Parliament, Evacuees in Canada and U.S.," *Yorkshire Post and Leeds Intelligencer*, November 12, 1941.

<sup>233</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 5.

<sup>234</sup> TNA: HO 207/386, *Christmas Festivities in Shelters*, n.d.

<sup>235</sup> LMA: ACC/1297/LPT/01/038A, *Chronological Table of 80 Happenings at Tube Station Shelters*, June 23, 1945, 1.

shelter and otherwise wandered the streets or sat in public parks, the children never receiving a proper bath and becoming “verminous or diseased.”<sup>236</sup> Those officials working in public shelters, such as shelter wardens, were encouraged to persuade people who brought young children into shelters to evacuate them.<sup>237</sup> Doctors and nurses were to be part of this task, and were asked to convince parents that shelters were no place for small children.<sup>238</sup> It was also considered to have Child Welfare train workers specifically to go into the shelters in which there were a number of children in order to talk with the mothers and “preach the gospel of evacuation.”<sup>239</sup> As a private initiative, the Association of Psychiatric Social Workers specially trained 150 women to go to shelters with an “abnormal” number of children and contact the mothers to “preach evacuation.”<sup>240</sup>

The behavior of children in shelters was often a source for discontent. One report referred to the young children frequenting public shelters as “little hooligans.”<sup>241</sup> Shelter wardens and officials were instructed to record the names and addresses of children in shelters and find out which ones were not attending school, passing on this information to school attendance officers.<sup>242</sup> “Young hooligans” was a repeated description used in

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<sup>236</sup> TNA: HO207/386, London Region Circular No. 385, *Training of Shelter Wardens'*, June, 1941, 14.

<sup>237</sup> TNA: HO 207/386, *Comfort and Amenities in Shelters*, December 4, 1940, 5.

<sup>238</sup> *ibid.*

<sup>239</sup> TNA: HO 207/386, M.A. Creswick Atkinson, *Plan for Welfare in Shelters*, February 5, 1941, 3.

<sup>240</sup> TNA: HO207/386, Interview with Mrs. Hunnybun, of the Association of Psychiatric Social Workers, n.d.,

<sup>241</sup> TNA: HO 207/386, M.A. Creswick Atkinson, *Plan for Welfare in Shelters*, February 5, 1941, 2.

<sup>242</sup> *ibid.*

complaints about youth behavior, particularly the damaging of shelters.<sup>243</sup> Outside of the shelters, children with nothing to do since schools had closed in many urban areas roamed the streets as “batches of young hooligans,” thieving and generally causing mischief.<sup>244</sup>

Solutions to this problem usually revolved around occupying the children in some way. One suggestion was to draw the children into groups where quiet occupation could be arranged for them, such as drawing, charades, or quiet games.<sup>245</sup> Sometimes this welfare work with shelter children extended outside the shelter. One official was very positive about the “Save the Children Fund’s” effort to engage children outside of the communal shelters where they slept, watching as “approximately 40 slum children” worked in the street at carpentry, modeling, sewing, and drawing, and judged this to be good welfare work because it was done in the open air.<sup>246</sup> Another solution was the provision of dormitory shelter at the local Boys’ and Girls’ Clubs, allowing the clubs to continue their work during the evening and removing a major source of nuisance, adolescents, from the larger public shelters.<sup>247</sup>

While participating in the war effort and civil defense drew together all factions of British society, some negative aspects could not be overcome. Different elements of society often mingled to a greater extent than they had before the war, working together as civil defense volunteers, standing in food queues, working in factories, living in

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<sup>243</sup> “Young Hooligans,” *Liverpool Echo*, April 24, 1941; “A.R.P. Shelters Damaged,” *Bath Chronicle and Weekly Gazette*, December 2, 1939; “Shelter Vandals,” *Nottingham Journal*, January 7, 1943.

<sup>244</sup> “Bailie and ‘Young Hooligans’ in Dundee,” *Dundee Evening Telegraph*, December 16, 1939.

<sup>245</sup> *ibid.*

<sup>246</sup> TNA: HO 207/386, Memorandum to Ms. Creswick Atkinson, September 29, 1941, 1.

<sup>247</sup> LMA: EO/HFE/1/222, London Civil Defence Region, *Shelter at Boys’ and Girls’ Clubs*, Regional Circular No. 281, 1941.



shelters, or being evacuated together, yet old prejudices persisted. A negative perception of the lower classes permeated almost every aspect of civil defense, but particularly shelter living and evacuation. Opinions of foreigners and Jews also sometimes affected how people viewed certain shelters or workers. The mingling of the sexes, increasing through civil defense work and shelter living, was concerning to some members of society who were particularly focused on issues of immorality. Wartime living, in general, was accused of having a negative impact on morality, especially through sheltering, but also the increasing role of women in society and the breakup of families. As a vulnerable population that could offer little help to civil defense efforts, and whose deaths would certainly be considered more tragic and undermine morale, children consistently received special attention. Following civil defense principles of dispersal, the government's solution was to evacuate all children from dangerous areas, ensuring not only safety for the children themselves, but also lightening the burden on industrial areas in terms of services needed. Additionally, removing the children from danger would ensure that parents, freed from worry, could focus their attentions on contributing to the war effort. While hundreds of thousands of children were ultimately evacuated, a persistent return of evacuees and re-evacuation ultimately makes it difficult to determine how many lives were successfully saved by such schemes.

## Conclusion - “Civil Defence is Common Sense”

At the end of the war in 1945, British civil defense had proven a relative success. The various services, from the volunteer firefighters and demolition teams disregarding their own safety to put out flames and rescue survivors, to the WVS volunteers braving bombs to supply hot tea, had saved both civilian lives and infrastructure and had preserved morale. Despite occasional problems, long hours, understaffing, and an increasing lack of supplies as the war continued, all of the civil defense services had succeeded in performing their duties. Civil defense workers, however, were much more likely to suffer injury or death than the average civilian in the pursuit of their duties. Volunteers who sustained “war service injuries,” that is physical injuries suffered while on civil defense duty, were eligible for free treatment in all general hospitals, or at first aid posts for more minor injuries.<sup>1</sup> As indication of the risks faced, the London Ambulance and Rescue Services had lost over 30 volunteers killed by March 1941.<sup>2</sup>

The other aspects of civil defense enjoyed similar successes, albeit often hampered by issues of organization or supply, but ultimately providing the protection they were intended to. In the end, chemical weapons were not used in WWII and none of the anti-gas protective measures were put to the test. The psychological impact of poison gas on civil defense and the population, however, was significant. Not only did gas masks reassure the population that the government was taking steps to protect them, but the masks also served as a reminder of a citizen’s responsibilities in wartime Britain. Gas

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<sup>1</sup> LMA: CL/CD/247, Ministry of Home Security, *Home Security Circular No. 165/1940, Medical Treatment of Civil Defence Volunteers for Injuries Sustained on Duty*, July 8, 1940, 1.

<sup>2</sup> LMA: CL/CD/1/265, London County Council, *Return of Casualties to ARP personnel for the periods 3rd September, 1939 to 28th February 1941, March and April 1941*, 1941.

masks were a consistent, physical reminder of civil defense and the threat of poison gas, offering both a means to ease anxiety while simultaneously ensuring anxiety was present in the right amount needed for participation in civil defense. The shelters, although not proof against a direct hit, offered protection for millions of civilians during air raids. The underground sheltered many Londoners for the duration of the war, offering not only protection, but also companionship, entertainment, and hot meals or drinks. The government's policy of dispersal in sheltering proved generally successful to the extent that even when there was a direct hit on a shelter, the numbers of casualties were not shockingly high. Some of the highest single-event casualty figures of the war occurred later on, when people had become more complacent about sheltering and many entertainment venues were open again. In 1943 a bomb dropped on a cinema in East Grinstead, collapsing the roof and sidewall, and caused 190 casualties, 69 of them fatal.<sup>3</sup> The V2 rocket, lacking the distinctive sound of the V1, exploded without warning and left civilians no opportunity to seek shelter, undermining the government's attempt at effective dispersal and low casualty numbers. It was estimated that over 1,000 V2 rockets fell on southern England between September 1944 and the end of the war.<sup>4</sup> One V2 fell on a row of flats, killing 134, while another killed 110 shoppers at a market.<sup>5</sup> Over 160 people died at a Woolworth's department store when a V2 exploded in the store during a

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<sup>3</sup> TNA: HO 199/262, *Incident at Whitehall Cinema, East Grinstead, 9.7.43*, July 14, 1943.

<sup>4</sup> "1,050 V2's Fell, One Rocket Killed 160 People," *Western Daily Press*, April 27, 1945.

<sup>5</sup> *ibid.*

sale.<sup>6</sup> None of these major incidents received newspaper coverage at the time, however, partially because of the morale-lowering effect of mass casualty figures, but also because the government censored all reports of V weapon damage to prevent the Germans from knowing their successes and improving targeting.<sup>7</sup>

Despite the best efforts of civil defense personnel, German air raids did cause significant casualties among the British civilian population. During the first month of the Blitz in London alone, there were over 14,000 casualties, of which nearly 6,000 proved fatal.<sup>8</sup> By June 1944, when the V rockets added another element of danger, 51,822 British civilians had been killed in the war, with another 63,000 injured seriously enough to require hospital admission.<sup>9</sup> 57,298 civilians had been killed by August 1944, over 7,000 of them children.<sup>10</sup> A final total of 146,760 British civilians became casualties of WWII, with over 60,500 killed, among them nearly 8,000 children under the age of 16.<sup>11</sup> Air raids also significantly impacted the infrastructure of the country. Out of 13 million houses in Britain at the start of the war, 4.5 million had been damaged by enemy action, with many completely destroyed or damaged beyond repair.<sup>12</sup>

Civil defense as a topic enjoys much popular and academic recognition, with a large literature being devoted to the issue. The image conjured up at the mention of civil defense, however, is that of Cold War America and the often humorous aspects of

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<sup>6</sup> "Story of V2 Bombs," *Liverpool Daily Post*, April 27, 1945.

<sup>7</sup> TNA: HO 199/316, B.B. to L.D. Gammans, August 25, 1944.

<sup>8</sup> TNA: HO 186/561, London Civil Defence Region, *Numbers of Casualties to Civilians in September 1940 due to enemy air action*, October 11, 1940.

<sup>9</sup> *Statistics Relating to the War Effort* (London: HMSO, 1944), 9.

<sup>10</sup> *ibid.*

<sup>11</sup> "Civilian Casualties," *Gloucester Citizen*, July 13, 1945.

<sup>12</sup> *Statistics Relating to the War Effort* (London: HMSO, 1944), 31.

American civil defense procedures, such as the much-ridiculed ‘Duck and Cover.’ In Cold War Britain, civil defense also played an important role and the creation of the Civil Defence Corps in 1947 sought to ensure civilian protection in the case of atomic war. What accounts of Cold War civil defense fail to fully address, however, is that its practices and idiosyncrasies have their roots in WWII Britain and its successful, and war-tested, civil defense services. Additionally, the impetus that drove much of civil defense creation (and which was consistently used as a means to alarm the population sufficiently for participation in civil defense) was the threat of poison gas. Most of the major themes of Cold War civil defense are direct reflections of its earlier counterpart. Cold War civil defense, and even modern-day schemes, are evolutions of British WWII civil defense adapted for new or different threats.

Fear and anxiety drove the creation of civil defense programs. As it was clear to government officials in the 1930s that a future war would see devastating attacks on civilians, the potential destruction that could be wrought on civilian populations by a nuclear war was even more evident after 1945. The bombings of Hiroshima and Nagasaki made it clear to all observers that if atomic bombs were used in a future war the danger to civil populations was higher than ever before. Civil defense had been a successful tool in Britain during the war as it not only reassured the population, but also made them useful tools in the war effort. Civil defense programs could once again be useful to governments in soothing their populations’ anxieties and fears. Additionally, a new type of invisible terror now loomed. Where poison gas had been the concern that informed every aspect of civil defense, after 1945, when the true realities of the atom bomb became apparent, the

invisible and terrifying enemy now became radiation and fallout.<sup>13</sup> In mid-1945 a Committee on Chemical Warfare considered the future use of gas against Britain “extremely remote,” although they concluded that gas could potentially be used in conjunction with the atomic bomb.<sup>14</sup> The Committee also concluded that the use of a biological weapon could not be ruled out, either by itself or in conjunction with the atomic bomb, suggesting that poison gas had now been replaced by two new threats.<sup>15</sup> A recruitment pamphlet for the Civil Defence Corps suggested that “survival might depend on CIVIL DEFENCE,” presenting the reader with a horrifying scenario of a burning and demolished city and a “trail of radioactive dust downwind.”<sup>16</sup> Wardens, previously on the frontline of a potential gas war, were now trained to use radiation-measuring equipment instead of testing for gas.<sup>17</sup> The Civil Defence Pocketbook No. 3 contains sections dealing with radiation dangers, fallout, and protection therefrom, but makes no mention of the poison gas that had been such a popular topic prior to 1945.<sup>18</sup> While WWII pamphlets had provided instruction on making shelters gas proof, Cold War pamphlets instructed civilians on how to protect themselves from fallout.<sup>19</sup> The American booklet *Survival Under Atomic Attack* sought to negate the fear of fallout and radiation, arguing that it ought to be less feared than blast or heat and that only 15 percent of deaths would

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<sup>13</sup> For more on atomic fears see footnote on page 7.

<sup>14</sup> TNA: HO 186/2661, Inter Service Committee on Chemical Warfare, *Preservation of Civilian Respirators, Report to the Chiefs of Staff*, November 1, 1945, 1.

<sup>15</sup> *ibid.*, 2.

<sup>16</sup> TNA: INF 13/284, Home Office, *Join the Civil Defence Corps*, n.d., 3.

<sup>17</sup> TNA: INF 13/284, *Why Civil Defence Needs People Like You*, n.d., 2.

<sup>18</sup> Home Office, *General Information (All Sections), Civil Defence Pocketbook No. 3* (London: HMSO, 1960).

<sup>19</sup> *Your Basement Fallout Shelter* (Ottawa: Alger Press, Ltd, 1961).

likely be due to radiation.<sup>20</sup> The use of such fears, particularly stressing the invisible nature of the threat, was vital to achieve compliance among the population with civil defense measures. Objects such as gas masks served as a reminder of this threat, but also soothed anxieties with their mere presence, ensuring that the population was anxious enough to participate in civil defense, but not so anxious that panic would ensue.<sup>21</sup>

Civil defense was the face of the war on the home front. While Cold War programs consistently broadcast this idea, in WWII civil defense was quite literally fighting the war in the domestic sphere. In recruitment campaigns, civil defense services were consistently equated with national and war service, suggesting that what a civilian could do at home was often just as important as what British soldiers could do overseas. Cold War civil defense schemes adopted this idea of civilians fighting the war at home, particularly as a nuclear war would have mostly targeted the home front.<sup>22</sup> A 1955 advertisement in a British newspaper calling for civil defense volunteers is reminiscent of those of WWII, suggesting there were jobs only civilians could do and that civil defense was a way for

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<sup>20</sup> *Survival Under Atomic Attack* (Washington, DC, US Government Printing Office, 1950), 8-9.

<sup>21</sup> Gas masks offer protection in a radiological emergency by preventing the inhalation and ingestion of harmful alpha and beta particles, although both can also be effectively stopped by a layer of clothing. The U.S. government therefore did not integrate gas masks into their wider civil defense plans, although models were available for civilian purchase through private vendors. In Russia, however, civilian gas masks played a significant role in civil defense planning during the Cold War. Stocks of decades-old Russian respirators are still presently sold to civilians across the world looking for protection from chemical and nuclear weapons (although the efficacy of these respirators today is questionable). The CDC recommends a simple dust mask to protect against radioactive dust for civilians concerned with nuclear attack today.

“U.S. Civil Defence Calls Call for Gas Masks,” *Coventry Evening Telegraph*, February 29, 1960; Leon Gouré, *Soviet Civil Defense* (The Rand Corporation, 1960), 7; Centers for Disease Control, National Center for Environmental Health, *A Guide to Operating Public Shelters in a Radiation Emergency*, Appendix D: Decontamination Job Aids, “Decontamination for Yourself and Others,” February 2015, <https://emergency.cdc.gov/radiation/pdf/operating-public-shelters.pdf>.

<sup>22</sup> For more discussion on Cold War civil defense and the home front see Grossman, *Neither Dead Nor Red*; McEnaney, *Begins at Home*; Rose, *Underground*.

everyone to play a part in national defense.<sup>23</sup> The British Civil Defence Corps advertised for recruits in local and national papers, urging readers to “join now” as volunteers were urgently needed.<sup>24</sup> Another advertisement called for “many thousands” who were needed to staff the various civil defense services, similar to recruiting posters from before and during WWII.<sup>25</sup>

Civil defense was a tool to control the population’s behavior. As recruiting ads and government pamphlets often mentioned, civil defense sought to teach people certain skills so they could then perform them without problem when needed, such as first aid, fire fighting, or putting on a gas mask. Civil defense training thus ensured that civilians could perform the actions necessary to save their own and others’ lives in a crisis. In WWII, this training was repeatedly and successfully put to the test, not only by the volunteers of the civil defense services, but by those civilians who sought shelter at the sound of a siren, those who could use a stirrup pump to extinguish a fire, and those who could quickly don their gas mask upon hearing the gas rattle. Cold War civil defense volunteers never used their skills during an actual crisis, but repeated exercises nevertheless ensured the behavior was ingrained and could be performed without problem under duress.<sup>26</sup> Both volunteers and regular civilians were then expected to react in a specific, desired way should war come, without becoming frightened, disoriented, or creating chaos. Offering prescribed actions in the event of an emergency also served to redirect civilian attention away from fear of death to a more useful set of behaviors.

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<sup>23</sup> “Q: Whose job is civil defence now?” *Yorkshire Post and Leeds Mercury*, April 27, 1955.

<sup>24</sup> “Your local Civil Defence Services want men and women urgently,” *Cornishman*, December 14, 1950.

<sup>25</sup> “Civil Defence - Join Now,” *Nottingham Evening Post*, December 2, 1950.

<sup>26</sup> For more on Cold War civil defense and civilian behavior see Davis, *Stages of Emergency*; Oakes, *Imaginary War*; Grossman, *Neither Dead Nor Red*.



Civil defense sought to ensure the psychological soundness of civilians as much as it aimed to protect physical bodies. The idea that civil defense offered psychological benefit to the populace was a major component of the British scheme in WWII. Through controlling civilians' behavior, the government hoped to also sustain morale and control panic. Both were consistent concerns among government officials, as low morale could severely undermine the population's willingness to endure war and panic would create chaos. Civil defense also reassured civilians that there was something to be done in the face of danger, offering action instead of fatalism. This was even more important during the Cold War, as the potential for mass annihilation was a serious threat to public morale. While WWII civil defense volunteers actually engaged in valuable work that saved lives, Cold War civil defense workers had to derive their morale from being reassured that they could do something if war did happen.<sup>27</sup> Giving civilians specific tasks to do if atomic war occurred, such as filling containers with water to carry to the shelter, allowed them to concentrate on something other than certain annihilation. Objects sometimes also served this purpose of reassurance. In WWII, the gas mask was a visible and tangible reminder that civilians could protect themselves from gas, as long as they followed the prescribed steps. During the Cold War the objects of civil defense were much more symbolic, generally offering limited protection unlike their WWII counterparts. Cold War gas masks and shelters did offer some protection, against fallout and blast, but were unlikely to actually save lives in a nuclear war. These objects thus served mostly to reassure civilians that they could be protected.<sup>28</sup> Although officials had realized by the mid-1950s that

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<sup>27</sup> For more on Cold War civil defense and psychology see Weart, *Fear*; Boyer, *Bomb*; Krugler, *Only a Test*; Oakes, *Imaginary War*; Rose, *Underground*; Grant, *After the Bomb*.

<sup>28</sup> Monteyne, *Fallout Shelter*, 63; Oakes, *Imaginary War*, 77.

existing shelters left over from the War provided only limited protection against an atomic bomb, they nevertheless decided not to demolish existing structures because of the anticipation that the population would expect the government to provide some form of protection.<sup>29</sup> While civil defense recruitment pamphlets painted horrific images of a hydrogen bomb explosion, they were also quick to reassure people that there was something to be done and that passive acceptance was unacceptable.<sup>30</sup> Civil defense was still important, one pamphlet argued, because although a nuclear attack on Britain would be devastating, millions of people would nevertheless survive and need help afterwards.<sup>31</sup> Such messages served both as a reassurance that survival was possible and also redirected the civilian towards a useful task—civil defense.

The government used civil defense to gain support for its policies. By ensuring the physical and psychological soundness of civilians, civil defense in turn also offered support to the government's policies. In WWII, providing a scheme of civil defense that would see civilians sheltered, rescued, treated, fed, transported, and generally protected ensured that the British government could enter the war knowing an attack on its civilian population was likely. Civil defense also reassured the population that the government was there to take care of them, helping to create a more positive image of government in a time of war. During the Cold War, civil defense was a vital tool that allowed the American government to undertake its policy of deterrence and mutually assured destruction. The government thus used civil defense as a means of reassuring the populace and negating people's fear of a nuclear war by offering solutions for survival

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<sup>29</sup> TNA: HO 322/161, *Demolition of Last War Shelters*, March 8, 1955, 2.

<sup>30</sup> TNA: INF 13/284, Home Office, *Join the Civil Defence Corps*, n.d., 3.

<sup>31</sup> TNA: INF 13/284, *Why Civil Defence Needs People Like You*, n.d., 2.

and life after the bomb.<sup>32</sup> The British government, too, posited the need for the hydrogen bomb as a tool of deterrence and suggested that civil defense was the solution to deal with the threat of the bomb.<sup>33</sup> One pamphlet suggested that for deterrence to work, the country needed not only a strong military, but strong civil defense, as well.<sup>34</sup>

Ideas of self-help and personal responsibility permeated civil defense. As much as civil defense was the government's scheme to protect its population, civil defense relied on every civilian's desire and willingness to participate. While the British government offered protection in the form of gas masks and shelters, people needed to be actively engaged to make full use of what the government provided. A significant part of the responsibility for protecting oneself thus lay with the civilians themselves and the government actively encouraged civilians to be prepared for emergencies beyond just the minimum. For the civil defense services to work, civilians also needed to be encouraged to participate and to be reminded that they had a duty to their nation to serve. Urging civilians to take their own precautions, in accordance with government instructions, also removed some of the burden of responsibility from the government. During the Cold War, British civilians were encouraged to form domestic self-help parties under guidance of their local warden.<sup>35</sup> In Cold War America, the burden of providing protection fell much more heavily on the civilians themselves, who were encouraged to build their own shelters and stock them with supplies, making self-help a primary theme of American

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<sup>32</sup> For more on civil defense and deterrence see Oakes, *Imaginary War*; Garrison, *Armageddon*.

<sup>33</sup> TNA: INF 13/284, Home Office, *Join the Civil Defence Corps*, n.d., 3.

<sup>34</sup> TNA: INF 13/284, *There's a job for women too!*, 1953, 2.

<sup>35</sup> TNA: INF 13/284, *There's a job for women too!*, 1953, 2.

civil defense.<sup>36</sup> As it had been during WWII, ideas of self-help were heavily reflected in government issued pamphlets on how civilians could protect themselves. The U.S. Government's *In time of Emergency* was a handbook for citizens intended to teach them about nuclear attack and offer various means of protection from fallout.<sup>37</sup> The handbook suggested that preparedness would raise the chances of survival and urged readers to follow a checklist that included knowing the warning signals, knowing what to do in case of attack, building a fallout shelter or improvising one in an emergency, learning first aid, and stocking supplies in the shelter.<sup>38</sup>

Dispersal was a key component of civil defense programs. In WWII Britain dispersal worked on a much smaller scale than would be the case during the Cold War. Here, the government had actively sought to disperse the population to avoid large clusters of casualties that could have the potential to seriously undermine morale and the war effort. Additionally, those elements of the population who could not directly contribute to the war effort, such as children and invalids, were dispersed by being removed from areas of danger. During the Cold War, dispersal operated on a much larger scale, as the potential radius of destruction of an atom bomb was significantly larger than conventional bombs.<sup>39</sup> The British evacuation scheme called for the evacuation of

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<sup>36</sup> For more on self-help as a theme of American civil defense see Krugler, *Only a Test*; Grossman, *Neither Dead Nor Red*; McEnaney, *Begins at Home*; Boyer, *Bomb*.

<sup>37</sup> Office of Civil Defense, *in time of Emergency, a citizen's handbook on nuclear attack, natural disasters* (Washington: US Government Printing Office, 1968).

<sup>38</sup> *ibid*, 6-7.

<sup>39</sup> For more on themes of dispersal in American civil defense see Boyer, *Bomb*; Vanderbilt, *Survival City*; Krugler, *Only a Test*; Monteyne, *Fallout Shelter*; Rose, *Underground*; Garrison, *Armageddon*.

everyone 18 and younger, largely because of the susceptibility of youths to the hazards of radiation.<sup>40</sup>

While American civil defense post-1945 was created almost entirely from scratch, British Cold War civil defense could build upon existing structures and schemes. WWII civil defense had not only proven successful, but had also put a significant financial burden on the British government, which saw no reason after the war not to make use of existing objects and structures. As early as 1944, the War Office and Home Office considered the preservation of existing civilian respirators for a few years after the end of the war.<sup>41</sup> Initially after the war the Home Office ordered local authorities to collect all special types of gas masks, such as the child's mask and baby's helmet, which were to be kept alongside existing stores of civilian and service respirators to form a strategic five-year reserve.<sup>42</sup> The poor result, in both numbers and condition, however, coupled with new fears of nerve gases and biological weapons, led officials to conclude new types of respirators needed to be developed.<sup>43</sup> The existing stores of 34 million were nevertheless kept as a basic precaution.<sup>44</sup> A 1954 experiment tested the ability of various gas masks to withstand the heat flash of a nuclear bomb.<sup>45</sup>

The shelter program had protected millions of Britons from German air raids during the war, but government officials now wondered if the same program, reworked, could

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<sup>40</sup> TNA: HO 322/161, Home Office, Conference of Regional Directors of Civil Defence, *Minutes of a Conference held in Room 530, Horseferry House*, March 10, 1959, 5.

<sup>41</sup> TNA: HO 186/2661, *Respirators, Notes on Discussion with Major Sadd by Mr. Kirwan, Major Martin, Dr. Armstrong on 14th September 1944*, September 15, 1944, 1.

<sup>42</sup> TNA: DEFE 5/1, Chiefs of Staff Committee, *Preservation of Civilian Respirators*, February 12, 1947, Annex I.

<sup>43</sup> *ibid.*

<sup>44</sup> *ibid.*, Appendix I.

<sup>45</sup> TNA: DEFE 16/932.

protect the population against a nuclear bomb. While immediately after the war domestic and communal shelters were demolished, by 1947, on economic grounds, shelters were to be demolished only where it would result in the recovery of steel.<sup>46</sup> The Berlin Crisis in September 1948 led to the decision that shelter demolition ought to be stopped entirely.<sup>47</sup> Since it was considered impractical to embark on a new program of shelter construction, the old shelters were expected to serve a useful purpose in the case of future hostilities.<sup>48</sup> Not even the introduction of the hydrogen bomb changed this perception and officials argued that, outside of areas of complete devastation, shelters from the last war “should give reasonable protection against blast and heat and radiation [...]”<sup>49</sup> There was some consternation, however, that such shelters were taking up space in public parks and fields and by the late 1950s it was decided that where a shelter obstructed playing fields it could be demolished.<sup>50</sup> Based on information gathered in a shelter survey, officials determined that in 1955 roughly 100,000 domestic shelters and 10,000 communal shelters remained across the country.<sup>51</sup> In 1954 the Atomic Weapons Research Establishment tested the value of the Anderson shelter as a form of protection against the atomic bomb.<sup>52</sup> The Anderson shelter was chosen in part because of its efficacy against HE bombs, but also because it was assumed that the shelter would play a large role in any emergency shelter

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<sup>46</sup> TNA: HO 322/161, *Demolition of Last War Shelters*, March 8, 1955, 1.

<sup>47</sup> *ibid.*

<sup>48</sup> TNA: HO 322/161, Home Office, Conference of Regional Directors of Civil Defence, *Provision of Playing Field Facilities As Grounds For Demolition Of Shelters*, Note by O. Division, February 26, 1959, 1.

<sup>49</sup> *ibid.*

<sup>50</sup> TNA: HO 322/161, T.G. Weiler to All Regional Directors for Civil Defence, April 9, 1959.

<sup>51</sup> TNA: HO 322/161, *Demolition of Last War Shelters*, March 8, 1955, 1.

<sup>52</sup> TNA: ES 5/19, Department of Atomic Energy, Atomic Weapons Research Establishment, *Operation Hurricane Group Reports, Anderson Shelters*, March 24, 1954, 1.

program in the future.<sup>53</sup> The tests found that the Anderson shelter was extremely efficient at protecting against blast, allowing survival as close as 460 yards from a nuclear explosion.<sup>54</sup> Unsurprisingly, however, the tests also showed that 100% of potential occupants would have died from radiation exposure, undermining the use of the shelter in an atomic world.<sup>55</sup> By 1961, the Minister of Defence told an audience concerned about the government's plan for nuclear attack that air raid shelters were of no use in the next war.<sup>56</sup> The government's policy was nevertheless the maintenance and development of existing shelters as a primary task of civil defense.<sup>57</sup>

The civil defense services were restructured during the Cold War, but retained their original purpose. Air raid wardens, a cornerstone component of the civil defense services, were again recruited as a vital asset to safeguard British civilians. Wardens were to be the link between the civil defense services and the public at large, as they had been in WWII, and were to reconnoiter, report, and organize their communities.<sup>58</sup> The Rescue and Ambulance Services retained their former purpose and names, with the same eligibility requirements.<sup>59</sup> First Aid Parties remained a part of civil defense to provide emergency medical care.<sup>60</sup> A new Pioneer Section was created for men who would help restore and

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<sup>53</sup> *ibid*, 2.

<sup>54</sup> *ibid*, 9.

<sup>55</sup> *ibid*, 10.

<sup>56</sup> "Shelters No Use, Minister Says," *Times (London)*, September 28, 1961.

<sup>57</sup> TNA: HO 322/161, R.G.H. Whitworth to the Urban District Councils Association, "Demolition of Air Raid Shelters," September 21, 1960.

<sup>58</sup> TNA: INF 13/284, Home Office, *Men and women are needed now in the CIVIL DEFENCE CORPS* (London: HMSO, n.d.), 2.

<sup>59</sup> *ibid*.

<sup>60</sup> TNA: INF 13/284, *Why Civil Defence Needs People Like You*, n.d., 4.

rebuild infrastructure in an emergency.<sup>61</sup> For women volunteers, the Welfare Section combined several of the WWII jobs under one heading, such as assisting with evacuation, working in rest centers, and running mobile canteens and emergency feeding centers.<sup>62</sup>

As in WWII, civil defense workers were issued pamphlets or pocketbooks that offered written instructions on civil defense.<sup>63</sup> The AFS remained a separate, but complementary, part of civil defense during the Cold War, continuing its wartime mission.<sup>64</sup> The service did, however, now seek to recruit “men—and women— of courage *and* intelligence,” the intelligence now necessary to handle the equipment designed to fight fires caused by nuclear attack.<sup>65</sup> While in WWII employers had been encouraged to create their own civil defense sections at their factory or place of business, for the Cold War the government created an entire section specifically for industrial civil defense. The Industrial Civil Defence Service had its own headquarters section, wardens, rescue and first aid parties, welfare section, and fire guards.<sup>66</sup> Volunteers trained directly at their place of work, so as to be immediately prepared and available in the case of emergency.<sup>67</sup> The WVS, too, continued their civil defense work after the end of the war, engaging again in the welfare type of work which they had performed during the war.<sup>68</sup> British Cold War civil defense also found it difficult to recruit new members, as door-to-

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<sup>61</sup> *ibid*, 3.

<sup>62</sup> *ibid*.

<sup>63</sup> TNA: HO 322/161, Home Office, Conference of Regional Directors of Civil Defence, *Minutes of a Conference held in Room 530, Horseferry House*, March 10, 1959, 6.

<sup>64</sup> TNA: INF 13/284, Home Office, *Learn to fight fire—join the AFS*, n.d.

<sup>65</sup> TNA: INF 13/284, Central Office of Information, *They're just like you, People joining the AFS now* (London: HMSO, 1964), 2.

<sup>66</sup> TNA: INF 13/284, *Why Civil Defence Needs People Like You*, n.d., 5.

<sup>67</sup> *ibid*.



door canvassers encountered repeated arguments from civilians who had learned about the hydrogen bomb's effects from scientists, which seemed to undermine the purpose of civil defense.<sup>69</sup> While the civil defense services had plenty of wartime experience, they lacked necessary data on atomic explosions to prepare for the aftermath of a nuclear attack. In order to provide such data Britain simulated an attack on the Port of London by detonating an atomic bomb in a ship off Australia's coast in October of 1952, titled 'Operation Hurricane.'<sup>70</sup> In America, the most important finding in a report on a simulated nuclear attack with over 200 targets was that civil defense preparedness could reduce the casualties of the assumed attack from approximately thirty percent of the population to just three percent.<sup>71</sup>

Civilians continued to receive civil defense instruction from the government, with the primary focus now on an atomic bomb. Government officials still worried about finding the balance between scaring the population enough to take action, but not so much as to create panic and fatalism. In 1959, civil defense officials considered whether using the 10 megaton bomb as an example in the Householder's Handbook was excessive and whether or not a two or five megaton bomb should be used to explain the atomic bomb's effects.<sup>72</sup> The government once again invested time and money into civil defense recruitment, using films, posters, pamphlets, and newspaper advertisements. In post-1945

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<sup>68</sup> TNA: HO 322/161, *Conference of Principal Officers held on Tuesday, 6th July, 1954, at Horseferry House*, 3.

<sup>69</sup> TNA: HO 322/161, *Conference of Principal Officers held on Tuesday, 6th July, 1954, at Horseferry House*, 4.

<sup>70</sup> TNA: PREM 11/563, Statement by Dr. William Penney; Statement by Winston Churchill.

<sup>71</sup> *ibid*, 8.

<sup>72</sup> TNA: HO 322/161, Home Office, Conference of Regional Directors of Civil Defence, *Minutes of a Conference held in Room 530, Horseferry House*, March 10, 1959, 1.

Britain civilians were now to be convinced to join civil defense with a catchy slogan: “Civil defence is common sense.”<sup>73</sup>

In America, civil defense permeated every aspect of Cold War life, much as it had done in wartime Britain. Artists, especially, incorporated themes of civil defense into their works. In WWII Britain, George Formby’s popular songs, such as “I Did What I Could With My Gas Mask” and “Mr. Wu’s an Air Raid Warden Now,” made humorous occasions of civil defense.<sup>74</sup> Florence Desmond’s “The Deepest Shelter in Town” managed to turn an everyday part of wartime life into a racy metaphor.<sup>75</sup> In WWII Britain, artists who painted or sketched scenes on civil defense could have their works purchased by the Artists’ Advisory Committee and exhibited publicly.<sup>76</sup> American artists during the Cold War focused either on the humorous side of atomic civil defense or used their art as a form of protest. Tom Lehrer’s “We Will All Go Together When We Go,” made fun of the idea that civil defense could protect the population against an atomic bomb, while one of Bob Dylan’s earliest songs, “Let Me Die in My Footsteps,” protested the idea of going underground for safety.<sup>77</sup>

Since its inception as a scheme to protect civilian populations from modern war, civil defense has existed in some type or form in many societies. After the end of the Cold War interest in civil defense waned as there seemed to be no more need for it, but

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<sup>73</sup> TNA: INF 2/122, “Civil Defence Today,” 1957.

<sup>74</sup> George Formby, “I Did What I Could With My Gas Mask,” recorded 1941, Regal Zonophone. Shellac; George Formby, “Mr. Wu’s An Air Raid Warden Now,” recorded 1942.

<sup>75</sup> Florence Desmond, “Oh! What a Surprise for the Duce!/ Deepest Shelter in Town,” recorded 1941, His Master’s Voice. Shellac.

<sup>76</sup> LMA: CL/CD/1/263, E.C.H. Salmon, *Artistic Record of the War, Civil Defence and General Purposes Committee*, July 13, 1940.

<sup>77</sup> Tom Lehrer, “We Will All Go Together When We Go,” recorded 1959, *An Evening Wasted with Tom Lehrer*, Lehrer Records; Bob Dylan, “Let me Die In My Footsteps,” recorded February 1962, *The Bootleg Series Volumes 1-3 [Rare & Unreleased] 1961-1991*, Columbia. Compact Disc.

the events of September 11, 2001 brought a resurgence of civil defense thinking, particularly in the United States. While contemporary preparedness lacks the governmental civil defense structures and schemes, the focus has entirely shifted to the self-help and personal responsibility aspects, urging civilians to prepare for potential acts of terrorism. Preparedness instructions, posters, and pamphlets nevertheless are reminiscent of the civil defense instructions of WWII and beyond. An American Red Cross pamphlet on preparing for terrorism instructs civilians to make a plan, stock supplies, familiarize themselves with local emergency schemes, learn first aid, and to shelter.<sup>78</sup> Instructions for sheltering in place post-9/11 are similar to instructions for creating a gas proof refuge room prior to WWII.<sup>79</sup> A terrorist preparedness booklet published by a U.S. Congressman reiterates the idea of civil defense as psychological preparedness, suggesting that knowing how to respond to an emergency will allow the reader to remain calm and avoid panic.<sup>80</sup> Additionally, the threat of terrorism has also renewed fears of chemical weapons, with the advocacy of protective measures such as a modern-day gas-proof refuge.<sup>81</sup> Since its inception in the 1930s, civil defense has played a significant role in western societies in various iterations and schemes, with many of the basic themes and elements remaining similar over the years. Fear was always a driving factor of civil defense programs, both the fear of physical attack on civilians, such as air raids, but also the fear of something that appeared more gruesome or terrifying. Prior to and during WWII this fear revolved around poison gas and influenced every aspect of

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<sup>78</sup> American Red Cross, *Terrorism, Preparing for the Unexpected*, October 2001.

<sup>79</sup> American Red Cross, *Fact Sheet on Shelter-in-Place*, February 2003.

<sup>80</sup> Robert Pittenger, *Preparing Your Home, Family, and Business for Terrorist Attacks, Some Common Sense Suggestions on Getting Ready*, n.d., 1.

<sup>81</sup> Federal Emergency Management Agency, *Are You Ready? Terrorism*, n.d., 160.

British civil defense, serving both as the impetus for civil defense and as a persistent reminder of its necessity. During the Cold War, radiation took the place of poison gas, but civil defense schemes in both Britain and America built on the very principles and ideas that had worked successfully in WWII Britain. Even modern-day schemes of civil defense, less organized and intense, nevertheless use the imagery of both of these terrors to create in civilians a need for urgency and participation.

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## PUBLICATIONS AND PRESENTATIONS

### Conference Presentations

Malfoy, Jordan. "The Gas Mask is not a Talisman: Protecting the Civil Population from Gas in Britain, 1915-1945." Paper presented at the British Commission for Military History Conference, St. John's College, Cambridge, UK, November, 2017.

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