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**CIVIL DEFENCE IN CANADA, 1939 - 1965:
GARNERING PUBLIC SUPPORT FOR WAR AND NUCLEAR WEAPONS
THROUGH THE MYTH OF PROTECTION**

**A thesis presented to the
Department of History
Lakehead University**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Arts in History**

**by
Anne Fisher ©
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ABSTRACT

The Canadian federal government used a civil defence program to sustain public support for World War Two and afterwards for a defence policy based on nuclear weapons.

The successful implementation of civil defence measures depended upon the public's perception of their credibility. During the Second World War, enduring and widespread participation in Canadian civil defence activities suffered because the likelihood of an enemy attack was perceived as being too remote. As Allied victory became more apparent, civil defence was dropped from the government agenda and did not re-emerge until after 1949, when the Soviet Union detonated its first atomic bomb.

Civil defence, responding to the perceived threat of an enemy attack, was practiced during the Cold War as part of the military's strategy of nuclear deterrence. Three reasons are identified for public acquiescence and support for a defence policy based on nuclear weapons: censorship of the atomic bombings of Hiroshima and Nagasaki, political restructuring of the post-war international order, and public association of communism with "the enemy." These three issues provided a rationale for a re-emergence of civil defence measures in Canada.

An analysis of civil defence pamphlets, municipal survival plans, and mock attack exercises show how civil defence helped convince people that it was possible to survive a nuclear war by minimizing the danger from radioactive fallout and its associated health hazards. However, the credibility of civil defence measures was undermined by the 1954 hydrogen bomb detonation, code named BRAVO, which declassified the occurrence of widespread radioactive fallout. As the dangers of radioactive fallout became better known the federal government increasingly emphasized the individual's responsibility to provide for his or her own survival. A review of civil defence policies in Canadian news magazines (1950-1965) shows a growing public resistance for evacuation and shelters as radioactivity weakens the belief in the possibility of surviving a nuclear war.

Canada's civil defence programme was carefully manufactured for very purposeful utilitarian reasons; to demystify an atomic bombing without discussing the human cost. Civil defence strengthened the idea that nuclear weapons could provide for national security. Through civil defence organizations and preparations, public participation was co-opted in favour of nuclear war. By appearing to provide civilians with the means to protect themselves during an attack and the resources to meet their needs in the aftermath of a nuclear war, support was increased for nuclear deterrence.

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INTRODUCTION

As an instrument of war, the new but still frail aircraft had proven its effectiveness during the First World War, when German air raids over London had significantly upset British morale. Initially, the public responded to aerial bombardments with poor worker efficiency, mass hysteria, and rioting. The devastating effects of air raids was re-affirmed during the 1930s with Japan's bombing of China, Italy's bombing of Ethiopia, Germany's bombing of Spain and Britain's bombing of Somalia and Iraq. Those who became adults during the 1930s "expected" war to include the aeroplane dropping bombs onto cities.¹ The impact of the warplane on society was adeptly described by philosopher Jean-Paul Sartre in The Reprieve, the second volume of his trilogy Roads to Freedom. Sartre noted that both psychologically and physically, the bomber had taken away the medieval impenetrability of the stone wall. Against "ten-thousand-pounder bombs," no one could feel secure. For the urban dweller, security had "vanished" under the city's "hundred tons of stone." As Sartre was quick to realize, people were "wandering about among poised avalanches."² The city had become a trap.

From a military perspective, countering speculative fears and sustaining public support for a war was deemed possible by keeping morale high. The morale factor was not a new concept in war plans. As military historian Lawrence Freedman noted, the importance of

¹Eric Hobsbawm, The Age of Extremes: The Short Twentieth Century 1914-1991 (London: Abacus, 1994), p. 35.

²Jean-Paul Sartre, The Roads to Freedom, vol. 2: The Reprieve, trans. Eric Sutton (Suffolk: The Chaucer Press, 1945), p. 21.

esprit de corps had long been recognized, but aerial warfare was dimming the distinction between military and civilian society. Victory was no longer simply a test of military strength and morale now that the civilian population could be threatened with indiscriminate death. Militarists such as Italy's Giulio Douhet (1869-1930) reasoned that if people could be brought to suffer from a complete societal breakdown, then, acting from the instinct of self-preservation, they would rebel against their government and demand an end to the war.³ Under such circumstances, "[c]ivilian suffering might be a cause of defeat - not just a consequence."⁴ Maintaining public morale in the face of terror bombing was the objective of civil defence measures.

Civil defence consisted of municipal preparations which would facilitate the protection of the public in anticipation of an aerial attack. Known to some as the "fourth arm" of the military, civil defence was intended to mitigate terror by teaching people what to expect and how to respond. The success of civil defence ultimately rested with individuals who were expected voluntarily to adopt civil defence measures for the safety of their own life and property. Assistance would come from ordinary municipal services such as fire, police, health, public utility, welfare and transportation; but it was the duty of individuals to arrange for their own personal survival. Civil defence was premised on

³For an overview of the early developments to the theory of strategic bombardment see Lawrence Freedman, The Evolution of Nuclear Strategy (New York: St. Martin's Press, 1981), pp. 7-9.

⁴Ibid., p. 8.

protecting the public before an attack occurred and as such was known as a passive defence. Defence of the country from an attack was the responsibility of the armed forces and was known as active defence.

In this thesis I argue that civil defence was used by the Canadian federal government to sustain public support for World War Two and afterwards for a defence policy based on nuclear weapons. The successful implementation of civil defence measures depended upon the public's perception of their credibility. In Chapter One, I argue that during the Second World War, enduring and widespread participation in Canadian civil defence activities suffered because the likelihood of an enemy attack was perceived as being too remote. In the public's mind, the need to implement protective measures could not be rationalized by the threat of an aerial attack. As Allied victory became more apparent, civil defence was dropped from the government agenda and did not re-emerge until after 1949, when the Soviet Union detonated its first atomic bomb and the notion of immense physical destruction inflicted unexpectedly upon a defenseless people caught in horror-struck panic became a possibility.

Civil defence, responding to the perceived threat of an enemy attack, was practiced during the Cold War as part of the military's strategy of nuclear deterrence. Preparatory measures were expected to boost the morale of the civilian population and dampen the resolve of the enemy to launch an attack on city centers. Nuclear deterrence ultimately rested on the plausible risk of a nuclear

war. Underlying this credibility was the assumption that people would only accept a policy of nuclear deterrence if they could be assured that a nuclear attack on their own cities would not be too costly.

In Chapter Two, I identify three reasons for public acquiescence and support for a defence policy based on nuclear weapons: censorship of the atomic bombings of Hiroshima and Nagasaki, political restructuring of the post-war international order, and public association of communism with "the enemy." These three issues provided a rationale for a re-emergence of civil defence measures in Canada.

The issue of censorship is examined in relation to the atomic bombing of Hiroshima and Nagasaki. In North America, information about the aftermath of the two bombs passed through the United States' Defence Department prior to public release. Exceptionally tight control of the details allowed for the atomic bomb to be portrayed as just another, albeit more powerful, conventional weapon, while the dangers to human health from radiation exposure were suppressed. Without censorship of the atomic bombings, it would have been difficult to create and then maintain a defence policy based on nuclear weapons because people would not have been assured of humanity's survival. The sheer lack of uncensored information on the atomic bomb and its known effects allowed the Canadian government, through the civil defence organization, to assure the Canadian public that they could actually be protected against an atomic attack. So successful was the initial distortion

of information on the atomic bomb that as late as 1961, civil defence officials were minimizing the danger of radioactivity to human life. In part, this was possible because the prevalence of the idea of mutually assured destruction was not popularized until the late 1960s when critics of the US Secretary of Defence Robert McNamara seized upon the acronym to denounce the rationale of nuclear deterrence.

Canada's military participation in regional and bilateral defence organizations required that the public associate national security with nuclear weapons. Canadian security was identified with keeping secret the United States' knowledge of how to make an atomic bomb. The idea of national security was wrapped-up in the notion of exclusive knowledge and prevented Canada from adopting a more independent stance at the United Nations Atomic Energy Commission. When, through the Gouzenko Affair, it was revealed that spies were trying to obtain the atomic secret for the Soviet Union, the threat to national security was quickly associated with communism. By creating an external enemy, members in the defence alliance of NATO were able to promote a strategy of nuclear deterrence, and through deterrence, depict the atomic bomb as the protector of life.

In Chapters Three and Four, I show how the civil defence program helped to convince people that it was possible to survive a nuclear war and reconstruct society, making nuclear deterrence a viable military policy. Chapter Three explores how the civil defence program was implemented through survival planning, and how

the denial of death from radiation exposure was central to obtaining public participation. Civil defence propaganda presented an atomic bomb attack as a localized disaster, the outcome being not much different than that of a conventional bomb. With the right knowledge, civilians were told they could save themselves from an atomic bomb attack. In Chapter Four, I look at the various national civil defence policies, namely evacuation and private, public, and government shelters, as they were depicted in the Canadian media. Many of the magazine articles show a growing public resistance to civil defence policies as the hydrogen bomb, the "missile gap," and the ensuing nuclear arms race weakened public belief in the possibility of surviving a nuclear war.

Canada's "national survival escapade" (a term coined by Desmond Morton)⁵ was carefully manufactured for very purposeful utilitarian reasons; to demystify an atomic bombing without discussing the human cost. Civil defence strengthened the idea that nuclear weapons could provide for national security. The civil defence program helped to forge consensus about the meaning of security by suggesting to the public that a nuclear war was manageable if people made appropriate arrangements. Through civil defence organizations and preparations, public participation was co-opted in favour of nuclear war. By appearing to provide civilians with the means to protect themselves during an attack and

⁵Desmond Morton, Canada and War: A Military and Political History (Toronto: Butterworths, 1981), p. 208.

the resources to meet their needs in the aftermath of a nuclear war, support was increased for nuclear deterrence.

CHAPTER ONE

The Origins of Civil Defence in Canada

By the mid 1930s, technological advances in aviation, especially in aircraft carriers and the long-range bomber (which was now capable of crossing the Atlantic Ocean with only one refuelling stop) meant that air raids could also threaten the security of Canada. Worried over the possibility of being drawn into another European war, Canada's Chiefs of Staff re-evaluated the state of their defenses and found them "impoverished."⁶ In May of 1935, Major-General A.G.L. McNaughton sounded the alarm bell. In a confidential memorandum prepared for government, he noted that there was "not a single modern anti-aircraft gun of any sort in Canada;" neither was there an aircraft "of a type fit to employ in active operations," nor a bomb that could be dropped from an aircraft.⁷ The response from government was to create a sub-committee of Cabinet, known as the Canadian Defence Committee (later known as the Defence Committee of the Cabinet). At its inaugural meeting, held on August 20, 1936, Major General E.C. Ashton, Chief of the General Staff from 1935 to 1938, recommended the organization of a civil defence planning committee. Ashton was in favour of a planning committee for air raid precautions, but he was not prepared to keep it under the authority of the Defence Department. With the view that responsibility for civilian protection from a potential aerial attack would be too costly an

⁶C.P. Stacey, Arms, Men and Governments: The War Policies of Canada, 1939 - 1945 (Ottawa: Queen's Printer, 1970), p. 3.

⁷Ibid.

undertaking, Ashton preferred that Canada adopt the British model, which had made civil defence a preoccupation of the Home Office.⁸

Follow-up on recommendations originating from the Canadian Defence Committee was slow to occur. The committee's ability to influence defence policy was incumbent upon the Prime Minister who was, in Donald Creighton's words, "ostentatiously aloof" from discussions on foreign policy and related defence themes.⁹ In its role as senior advisor on defence policy, the Canadian Defence Committee was reduced to an occasional forum through which the Chiefs of Staff were given the opportunity to discuss defence estimates with the Ministers of Justice, Finance, and National Defence prior to their submission to Parliament.¹⁰

Prime Minister Mackenzie King was loath to respond to the increasingly heightened international tensions, but Germany's rearmament program, coupled with the absorption of Austria by Germany in March of 1938, could not be ignored. People began to question Hitler's intentions and the legitimacy of German

⁸Canada, Department of National Defence, Historical Division, R.G. Rannie, "Civil Defence in Canada, 1936-1946," 1950, p. 2; also available at the National Archives of Canada (NAC), Department of National Health and Welfare (DNH&W), RG 29, Vol 639, File 100-1-10. Possessing an M.A. in History, Major Rannie, who served in artillery during the Second World War, was contracted by the Department of National Defence, Historical Division in 1949 to write a history of the Air Raid Precaution program as a back-grounder to the Army's newly formed civil defence office. The only in-depth study available on ARP, this paper, among other things, amalgamated into one holding the federal documents of the then defunct ARP program.

⁹Donald Creighton, The Forked Road: Canada 1939-1957 (Toronto: McClelland and Stewart, 1976), p. 3.

¹⁰Stacey, Arms, Men and Governments, p. 69.

grievances, while politicians and bureaucrats grew increasingly more convinced that another European war was impending. British historian A.P. Taylor suggests that Hitler's use of the German army to assure himself of Austria's smooth transition from independence to incorporation had an unfavourable influence on foreign public opinion. As Taylor pointed out, "Hitler ceased to be an idealistic liberator of his fellow nationals; he appeared instead as an unscrupulous conqueror, bent on war and domination."¹¹ Soon a stunned world began to witness the rapid rise of German nationalism. Mackenzie King could not ignore the failures in European diplomacy and in March of 1938 the Canadian Defence Committee established six inter-departmental committees, including one on Air Raid Precautions (ARP), to plan for the defence of Canada in the event of a war.¹² Each of the committee reports made substantial contributions to the War Book,¹³ but King was adamant that the general public was to have no inkling of the preparations being made for their security.¹⁴ King desperately wanted to avoid the sensitive issue of a general mobilization which had become, in the public mind, associated with matters of Imperial obligations and conscription. The government's war preparations were lax and

¹¹A.J.P. Taylor, The Origins of the Second World War. 2nd ed. (Greenwich: Fawcett Publications, 1961), p. 165.

¹²In addition to the ARP committee, home defence was to be studied by Committees on Defence Co-ordination, Censorship, Treatment of Aliens and Alien Property, Treatment of Ships and Aircraft, and Emergency Legislation.

¹³Stacey, Arms, Men and Governments, p. 69.

¹⁴Rannie, "Civil Defence in Canada, 1936-1946," p. 4.

muted in order to avoid unpleasant charges of provocation and a re-ignition of the unity debate that had so sorely tested Prime Minister Robert Borden during the First World War.

Creation of the Inter-departmental Committee on Air Raid Precautions by Privy Council Order 531 marks the administrative beginning of civil defence activities in Canada. The committee's task was "to draw up a comprehensive scheme detailing the non-military measures" which could be taken to protect the civilian population from air raids.¹⁵ Ashton's previous resistance to a military obligation for the program resulted in supervisory authority being assigned to the Department of Pensions and National Health. Although no justification was given for the decision, Major R.J. Rannie suggests that it was because medical assistance to civilians was expected to be of a high priority.¹⁶ He also noted that the Department of Pensions and National Health had close working relationships with the various provinces in addition to its familiarity with public health issues. The ARP Committee was chaired by the Deputy Minister of Pensions and National Health, Dr. R.E. Wodehouse, with representation from the Departments of Finance, External Affairs, Transport, Labour, Trade and Commerce, National Defence, the Secretary of State and the Postmaster General.¹⁷ In spite of such well-rounded representation, the

¹⁵Privy Council Order 531, March 14, 1938.

¹⁶Rannie, "Civil Defence in Canada, 1936-1946," p. 5.

¹⁷Canada, Department of Pensions and National Health, Annual Report for March 31, 1940 (Ottawa: Queen's Printer, 1940) p. 151.

actual report was written through an exchange of memoranda between Dr. Wodehouse and Colonel M.A. Pope, Secretary of the Chiefs of Staff. Remaining committee members "gave constant approval and encouragement, and wisely did nothing."¹⁸ The report identified several non-military measures that would protect citizens from air or gas attacks including; a warning system, lighting restrictions, protection from incendiary and gas bombs, treatment of casualties, rescue parties, maintenance of utilities, dispersal of population and instructions for the public. It recommended, among other things, that Cabinet avoid a "wait and see" attitude and immediately begin ARP preparations. Cabinet approved the report. In July of 1938 a ten member Executive Committee of the Department of Pensions and National Health was officially made responsible for air raid precaution measures and a primer on the subject, modified from the 1934 British publication, Handbook of Passive Air Defence, was printed and stored for future distribution should the need arise.¹⁹

Other than writing a manual, there was little else that could be done given the requirement of secrecy. The Chiefs of Staff, having been relieved of their responsibility for public safety, lost interest in air raid precautions and turned their attention to the military defence of Canada. ARP preparations remained dormant until August of 1939 when the Prime Minister learned of a Soviet-

¹⁸Rannie, "Civil Defence in Canada, 1936-1946," p. 7.

¹⁹Ibid., p. 6; also see the Department of Pensions and National Health, Annual Report for 1940, p. 152.

German treaty of non-aggression and friendship. Aware of Britain's commitment to come to the aid of Poland should it be invaded, King assumed the worst and began to prepare for war.

The First Wave of Public Interest in Civil Defence

On August 24, 1939, Dr. Wodehouse was instructed to inform the Premiers of Nova Scotia, New Brunswick, British Columbia, and Quebec of ARP measures. On the following day the Premiers of Nova Scotia, New Brunswick, and British Columbia each met with a member of the ARP Executive Committee and Quebec was approached one week later. All four provinces agreed to co-operate with the federal government and establish local ARP committees in municipalities considered by the military to be "definite risk areas" including Sydney, Cape Breton, Halifax, Dartmouth, Saint John, Quebec City, Montreal, Vancouver, Victoria, Nanaimo, and Prince Rupert. On August 31, Cabinet granted \$150,000 to the Department of Pensions and National Health to assist in the implementation of ARP measures and on September 10, when Canada declared war on Germany, provincial ARP committees began their call for volunteers. Almost instantaneously, the safety of an estimated 2.5 million people had become the responsibility of an Executive Committee whose officials, restricted by secrecy, had been capable of doing little more than "copy on paper the outlines of the ARP scheme that had been prepared in the United Kingdom."²⁰

²⁰Rannie, "Civil Defence in Canada, 1936-1946," p. 19.

There were very few guidelines to regulate the decisions of the Executive Committee whose duties were never fully stipulated. Overall, policy appears to have been to pass on to provincial organizations the responsibility for implementing ARP, or "as much of the program as each province would accept."²¹ Influenced by Britain's civil defence organization, Canada followed a decentralized system for ARP's organizational structure but missed an essential point of the English system which made regional controllers responsible to central direction. In Canada, the Executive Committee was delegating responsibilities to provincial authorities over which it had little jurisdictional control. From the start, each province was given responsibility for implementing its own ARP program which created a very weak system for program standardization and co-ordination.

Lack of consultation with provincial authorities also produced endless confusion over funding arrangements. The Federal government was willing to cover the expenses of first aid training, instructional literature, and anti-gas equipment, but provincial governments were warned not to expect financial assistance for implementing a civil defence program. It was not long before the provinces were asking why they should be charged with the financial responsibilities of protective measures for federally designated cities. The lack of a financial policy was also the source of much criticism by provincial authorities who found themselves left to

²¹NAC, DNH&W, RG 29, Vol 639, File 100-1-10, "Civil Defence In Canada 1936 to 1946, (Synopsis)," 22 January 1953, p. 12.

finance and equip ARP programs in low-risk towns that wanted to implement civil defence measures. The issue of financial responsibility became most illuminated in the "hysteria" that followed the collapse of France in 1940:

Scores of local officials and private organizations throughout the country clamoured for aid and direction in organizing passive defence measures. They bombarded the government with criticism, pleas and suggestions.²²

Eventually, in February of 1942, the Federal government agreed to pay fifty per cent of ARP expenditures, and in June of 1942 a per capita provincial grant formula was agreed upon.

In addition to poorly defined administrative duties and weak funding arrangements, shortage of ARP supplies and equipment resulted in provincial accusations of favouritism directed at the federal government. One contentious issue was not being able to charge the Federal treasury for routine, operational expenses of the federally created program. It was federal policy that such expenses as clerical help, utilities, telephone charges, office rent, janitorial wages, and many other items, should be assumed under each municipality's general operating budget. As one former Federal ARP officer remarked, "We had no money, we had no policy except to avoid antagonizing anybody and, above all, avoid commitments."²³

Popular interest in ARP measures arose in response to the capitulation of France. Municipalities were quick to jump into

²²Rannie, "Civil Defence in Canada, 1936-1946," p. 19.

²³Ibid., p. 44.

civil defence activities so long as the perception of an enemy attack on Canadian soil was sufficiently strong. When the perceived threat receded, municipalities found themselves the sponsor of preparedness exercises whose value could not be shown.

The Second Wave of Public Interest in Civil Defence

A rekindling of concern in ARP measures inspired many to join local committees following the opening of the Pacific theater of war. Until Japan's attack at Pearl Harbour, Hitler had been cautious about challenging the territorial sovereignty of the North American coast. With the United States' entry into the war, however, warfare acquired a more intimate reality for some Canadians. German submarines began to appear on the St. Lawrence River, while sporadic sightings of Japanese submarines occurred on the West Coast. In 1942, a total of twenty-three ships on the St. Lawrence Gulf and River had been hit by German torpedoes, resulting in twenty-two of the ships sinking; and on the West Coast, a Japanese submarine fired shells at Estevan Point on Vancouver Island.²⁴ Acting on the sense of urgency that accompanied the development of the Pacific War, the Department of National Defence advised of new and vastly expanded definite risk areas. National security prevented the publication of the accepted municipalities and instead, a shaded map was used. All municipalities lying within darkly shaded areas were considered in definite risk while those located in lightly shaded areas were thought to be of a lesser risk

²⁴Stacey, Arms, Men and Governments, p. 132.

and, while qualifying for ARP funding, were given secondary importance in provision requests.²⁵ Almost overnight the ARP program became responsible for the protection of 7.5 million people.

The threat of an enemy attack on Canadian soil created a jump in the number of ARP workers by fifty percent within three months.²⁶ With interest rekindled, public insistence on some tangible evidence of government protection pressed the federal ARP Executive Committee to hire a full-time director to oversee the demands of the program.²⁷ On January 1, 1942 Dr. R.J. Manion, a former Member of Parliament for the riding of Fort William and past leader of the Conservative Party, was appointed Director of Civil Air Raid Precautions. "Fighting Bob" had lost to Mackenzie King in the snap election of March, 1940. Upon relinquishing the leadership of the Conservative Party, Manion was made an associate member of the Chemical Warfare Interservices Board. The purpose of this Board was to study gas defence requirements and retaliatory measures for waging gas warfare. Not surprisingly, gas protection became a

²⁵While previously a handful of cities qualified for federal assistance, the expanded program included the entire province of Prince Edward Island and Nova Scotia, the coastal areas of New Brunswick, all communities along the banks of the St. Lawrence River, and the entire coast of British Columbia.

²⁶Canada, Department of Pensions and National Health, Annual Report, 31 March 1942, pp. 155-156. On December 15, 1942, the number of ARP workers was 94,233. By March 1943 the number of volunteers had jumped to 153,360 participants.

²⁷Ibid., p. 155.

paramount concern in ARP training.²⁸ An order for two million gas masks was placed with the Dominion Rubber Company with distribution left to the provincial authorities.²⁹ The threat of an enemy gas attack was never taken seriously by Canadians, and only a small proportion of the population actually purchased a mask. Most of them were "never taken out of storage for assembly and were eventually turned over to the War Assets Corporation at the end of the war."³⁰ Further orders for anti-gas equipment and clothing were cancelled when Brigadier General Alexander Ross, Chairman of the Manitoba Veteran's Association, took over the ARP program upon the death of Dr. Manion in July of 1943. As head of Manitoba's Veteran's Legion, the appointment of Ross was an acknowledgement of the valuable volunteer services provided by the veterans of Canada.

With the growing conviction that Canada was no longer in danger of having bombs dropped on it, the decision was made in 1943 to initiate a shut-down of the local ARP organizations in central Canada. Later, coastal ARP organizations were notified that all financial aid would cease at the end of the fiscal year, on March 31, 1945, and provincial authorities were told to turn over all equipment to the War Assets Corporation. In spite of the

²⁸Rannie, "Civil Defence in Canada, 1936-1946," pp. 47-9.

²⁹On the east coast, gas masks were being sold for \$1.25 from various retail outlets as it had been thought that greater care would be given to the masks if they had to be purchased. However, criticism of the policy eventually reached the House of Commons where it was suggested that respirators should be made available free of charge in areas designated vulnerable to attack. Canada, House of Commons, Debates, Vol 5, 1943, p. 4832.

³⁰Rannie, "Civil Defence in Canada, 1936-1946," p. 49.

administrative weaknesses and limited public support, approximately 775 communities had been organized and had received ARP equipment. Smaller towns and villages benefited from training in fire fighting and many auxiliary fire fighting services became volunteer brigades at the end of the war. In addition to fire safety, communities benefited from the development of emergency medical response programs and first aid instruction.

Observations on the Air Raid Precaution Programme

The initial blanket of secrecy surrounding ARP preparations undermined the administrative effectiveness of the program. Wodehouse had "repeatedly" requested permission to conduct community needs assessments and each time he was refused by the Canadian Defence Committee. Unable to determine what was lacking, purchase orders were not placed prior to the declaration of war and by then, industries were busy with military requests. ARP orders were given a very low priority. Much confusion could have been avoided had the federal government released a public statement on the ARP guidelines at the outset of the program and had clear funding guidelines been made available. The omissions created needless confusion for participants and strong criticism from low-risk municipalities who were being refused federal aid. By late 1940, complaints that ARP was not doing enough to protect the public gained prominence in press coverage and it became increasingly difficult to maintain enthusiasm for the program, even among the volunteer personnel. Eventually, under Dr. Manion,

funding guidelines were developed for supply purchases and for their distribution. The introduction of a consistent policy reduced much of the early condemnation although it did not improve the flow of desired supplies. Nor did the distribution of gas masks help to deflect public criticism of the program. Manion had also been critical of the lack of interest and representation by the military. He managed to get an agreement with the Department of National Defence for military representation at staff meetings but Ross cancelled the arrangement.

The inability to meet the equipment needs of local ARP organizations was an ongoing problem and the chronic lack of supplies accounted for much of the poor state of ARP preparedness. ARP locals waited for such items as fire pumps, hoses, sirens, respirators, protective clothing and surgical supplies, in addition to basic personal equipment such as steel helmets, rubber boots and overalls. In the city of Vancouver, for instance, it was estimated that an efficient ARP program would require 20,000 participants, yet the city could provide its volunteers with only 75 pairs of rubber boots and 1,500 steel helmets.³¹ By March 1942, \$721,000 of equipment had been distributed among the target cities, but on order was \$1.3 million of unfilled requests.³² It was becoming increasingly difficult for municipalities to facilitate home preparedness measures.

³¹P.W. Luce, "British Columbia ARP Farce," Saturday Night, 31 January 1942, p. 14.

³²Department of Pensions and National Health, Annual Report, 1942, p. 156.

As the war in Europe dragged on, municipalities experienced greater difficulties in obtaining emergency equipment. Engines for fire truck pumpers had to be imported from the United States and could no longer be secured, nor was it possible to get sirens driven by electric motors. Communities were urged to improvise their air raid alarms (which could not always be heard in homes and businesses). Popular siren inventions included the "artillery bomb" made by converting an old washing machine motor to run with an attached bell; other contraptions called for the re-gearing of small motors to activate a horn. Sound making alternatives included wind blown foghorns, hand-held whistles, factory whistles, steam whistles, fireworks, church bells, car horns, and just plain old shouting. Eventually, communities across Canada came to regard this lack of emergency preparedness as an affront by the federal government. If the poor state of ARP preparations was not a serious concern of the federal government or, for that matter, the military, then clearly, people believed, no real danger existed. Increasingly ARP was regarded as a "war farce" rather than a war service.

The one-way relationship between civil defence officials and military authorities helped to foster a public attitude of mockery toward air raid precautions. The Department of National Defence regarded the ARP program as a non-military operation, but in fact ARP had always been dependent on the advice of the military which kept the program focussed on responding to military threats. Part of the difficulty in maintaining public interest in civil defence

measures was the organization's dependence on a sense of urgency. As Rannie pointed out, the designation of a "definite" risk area, did not coincide with the "attitude" of the military from 1938 onward.³³ If there was a grave danger to society, then surely the organization of air raid precautions would have experienced closer integration with the military and a higher priority for accessing equipment. Since Canada's civil defence measures were never tested under actual assault conditions, it is impossible to know if there was adequate protection to safeguard the civilian population. There is, however, little evidence to indicate that National Defence regarded civil defence as a legitimate "fourth arm;" nor is there any indication that a concerted effort was undertaken by any branch of the military to integrate passive with active defence measures. Quite the opposite occurred when it came to the issue of defending the homeland, as ARP and militia organizations competed against each other for membership.

There was a firm expectation in the Federal government that the bulk of the work would be undertaken by private citizens on a voluntary basis. As it turned out, the volunteers who were attracted to civil defence were the patriotic, the seriously-minded, and the veterans of the last war.³⁴ Participation in air raid precautions offered an opportunity for those who either wanted to express their sense of civic duty while ensuring their own personal safety, or were rejected from active service yet still

³³Rannie, "Civil Defence in Canada, 1936-1946," p. 18.

³⁴House of Commons, Debates Vol.5, 1943, p. 4832.

wanted to make a contribution to the war effort.³⁵ To qualify as a civil defence worker in Canada, participants had to take a basic course consisting of nine lectures.³⁶ Upon completion, participants were given an arm band, I.D. card and the title of Sector Warden. The second phase of training consisted of choosing a municipal service in which to specialize, while in the third phase workers responded to a worst case scenario, co-ordinating two or more services under blackout conditions. The quality of training varied greatly. The St. John's Ambulance had taken over first aid training and provided a fairly comprehensive course in emergency assistance; however, one reviewer of Canada's ARP program bluntly stated that warden training was deficient:

It is doubtful if more than a small minority of the ARP workers who were enrolled in other categories [other than first aid] ... really understood their job or could have dealt adequately with the effects of even a small scale air attack.³⁷

As the war progressed, recruiters for the ARP organization found themselves in competition with those recruiting for the army reserve, and the reserve army or militia offered greater prestige. The militia, with its new uniforms and buildings, had grown in

³⁵Ibid.

³⁶The nine lectures comprising the Basic Course in civil defence were: 1. General Organization and Control of Civilian Defence; 2. Incendiary Bombs; 3. High Explosive Bombs; 4. War Gases; 5. Personal Protection Against Gas; 6. Protection Against Gas; 7. Elements of First Aid; 8. Transportation Services and; 9. Public Utilities Services. C.J. Eustace, ed., Defence Training, an Elementary Manual for Defence Training in Secondary Schools, p. 99.

³⁷NAC. DNH&W, "Civil Defence In Canada 1936 to 1946, (Synopsis)," p. 12.

public esteem and in its sense of purpose as the war was brought closer to North America. Although Canada's security was still vulnerable to the possibility of an air attack, the real threat was from the submarine. Men left civil defence organizations for reserve forces because the reserve army "more closely approximated actual war activities."³⁸ As more men moved out of the ARP and into the militia, it became increasingly difficult to keep the organization functioning at the municipal level. In British Columbia, the loss of personnel had become so acute that the Adjutant General was instructed by the Minister of National Defence not to recruit ARP members for the reserves without the prior approval of the ARP Provincial Committee.³⁹ There was talk of making ARP service compulsory for those men not yet enlisted in the reserve forces, but the suggestion was tempered by the idea that "foreigners" or "non-British" persons would then be participating in the ARP program.⁴⁰ This colonial perspective was a reflection of the large veteran constituency. Nor was the federal government willing to pursue the idea of compulsory ARP service: from a bureaucratic perspective the nationalizing of auxiliary fire and police services would interfere with provincial jurisdictions, but mainly, compulsory service contravened the spirit of the ARP

³⁸House of Commons, Debates Vol. 5, 1943, p. 4832.

³⁹Rannie, "Civil Defence in Canada, 1936-1946," p. 51.

⁴⁰"Military Discipline Idea For Members of A.R.P. Advanced at Meeting," Globe and Mail, 30 January 1943, p. 4.

program with its intent to be purely voluntary and to engage moral obligations.

For the general public, ARP measures were often an annoyance tolerated out of a sense of civic duty, and there were times when the ARP participants appeared to be over-stepping their authority. In Verdun, Quebec, for example, the civil protection committee took it upon itself one Saturday afternoon in March of 1941, to stop cars and demand registration certificates and licenses from drivers.⁴¹ The most invasive of ARP activities were the black-out exercises, undertaken periodically between 1941 and 1944. During these simulations, wardens would walk the neighborhoods peeking through key holes and shining flashlights through kitchen windows, trying to catch a cheating household. Smoking was not allowed outside and traffic would crawl to a virtual standstill except for the daring few who would race the blackened streets unrestrained by traffic lights. With a fifteen-miles-per-hour speed limit, blackouts were busy times for the police.⁴² Eventually, as the tides of war turned in favour of the Allied Forces and the threat of an enemy attack on Canada receded, public complaints about the behaviour of wardens and the length of the blackouts became more frequent. With no enemy assaults on Canadian soil, diminished public esteem of the organization and a lack of participation by the general population became one of the ARP program's most salient features.

⁴¹Canada, House of Commons, Debates, Vol 3, 1941, p. 2719.

⁴²Canada, House of Commons, Debates, Vol 5, 1943, p. 4822.

In Canada during the Second World War, the importance of civil defence waxed and waned according to the public's perception of the seriousness of the enemy's threat to personal safety. The first peak occurred in 1940 in reaction to Germany's lightning occupation of the Low Countries, the British army's dramatic escape from Dunkirk, and the capitulation of France. The second wave of public interest occurred with the Japanese bombing of Pearl Harbour in December of 1941. In both instances interest was fleeting and throughout the war the program suffered from a lack of public credibility. As Canada's first director of air raid precautions sardonically noted, "A few bombs might have changed Canada's mentality of civil defence committees."⁴³

Civil defence measures during the Second World War did not acquire a consistent level of respect among Canadians. One of the greatest drawbacks was limited access to equipment: epidemic throughout the country, it stretched the patience of many a volunteer while the distribution of gas masks grew increasingly farcical as the perception of a possible attack on Canadian soil diminished. As people followed the news of Germany's retreat under the combined offensive of the Soviet Union and Allied Forces, the perceived threat of an air raid on Canada diminished. Heightened confidence in the defeat of Germany began as early 1943 when the King government downsized the ARP program to its 1940 boundaries: there was no need to protect central Canada from northern attack

⁴³"Military Discipline Idea For Members of A.R.P. Advanced at Meeting," p. 4.

routes now that the Red Army had momentum. The only remaining danger was to the coastal regions.⁴⁴ The ARP program was officially closed down in March of 1945, five months prior to the atomic bombing of Hiroshima.

Civil defence remained dormant until the perceived threat of a nuclear attack on North America was acknowledged with the Soviet detonation of an atomic device in August of 1949. Civil defence measures were re-introduced into the public domain as protection against the effects of the atomic bomb. Had the voices of the atomic bomb victims of Hiroshima and Nagasaki, along with the real consequences of the atomic bomb, not been censored it would have been extremely difficult for people to accept civil defence preparedness as protection against the effects of the atomic bomb. Suppressing the real consequences of the atomic bomb, a new international world order, and associating communism with the threat to world peace were the three criteria needed to restore civil defence.

⁴⁴Because of their close integration with neighbouring cities in the United States, border towns such as Windsor, Sarnia and Sault Sainte Marie also kept active civil defence organizations until 1945.

CHAPTER TWO

Post World War II Issues: Laying The Ground For Civil Defence

From 1945 to 1949 there was little perceived need for a civil defence program in Canada because the wartime atomic alliance of Canada, Britain, and the United States held a monopoly on atomic power.⁴⁵ So long as the alliance held the advantage in nuclear technology the Canadian public could rest assured, knowing that possession of the atomic bomb automatically implied control of the battle's outcome; threatening the aggressor with an atomic attack was considered a legitimate strategy so long as there was no threat of a counter-attack. When the Soviet Union detonated its first atomic device in August of 1949, the belief in nuclear superiority was shaken. Russia's possession of the "atomic secret" had a sobering effect upon the general population, and civil defence was re-introduced into the public domain.

By promoting the illusion of protection, the civil defence program encouraged public acceptance of the concept of nuclear deterrence and its assurances that peace could be achieved through the will to risk a nuclear war. Educating by persuasion, civil defence was a government-sponsored propaganda campaign, one in which information management on the effects of an atomic bomb was of paramount importance to the program's success.

⁴⁵Information on civil defence during the interim years can be found in Steven Hugh Lee, "Power, Politics and the Cold War: The Canadian Civil Defence Program and the North Atlantic Alliance, 1945-1959," M.A. Thesis, McGill University, 1987, pp. 26-50. This thesis traces the administrative history of Canada's civil defence program at the federal level and contends that civil defence helped to consolidate Canada's "junior partnership" in the defence alliance with Britain and the United States.

Without the initial censorship on the effects of atomic bombs, especially radioactive fallout, the government claim that civil defence measures provide protection against an atomic bomb attack would not have been so readily accepted by the civilian population. Suppression of atomic horrors was designed to evoke specific public reactions to the atomic bomb which legitimized the political power of nuclear weapon adherents, a defence policy based on nuclear deterrence, and civil defence measures. This is what the winner of the 1994 Nobel Peace Prize for Literature, Kenzaburo Oe suggested when he said: "Hiroshima and Nagasaki had become known throughout the world because the power of the atomic bomb had been demonstrated there, not because of the suffering of the A-bomb victims."⁴⁶

Atomic bombs were esteemed for their power to destroy instantly while the magnitude of human misery, suffering, and death that is part of the weapon's effects were deliberately ignored. The unrestrained willingness of Canadians to adopt civil defence measures confirms a general state of public ignorance about the human misery an atomic bomb causes and affirms the unqualified success of a carefully controlled media campaign. It was not until the consequences of the 1954 hydrogen bomb test, code named BRAVO, became known that Canadians began to realize that they had been misinformed about the dangers of radiation and radioactive fallout.

⁴⁶Kenzaburo Oe, Hiroshima Notes, trans. D. Swain and Toshi Yonezawa (Tokyo: YMCA Press, 1965; reprint ed., New York: Grove Press, 1996), p. 68.

Initial Censorship of the Atomic Bomb in Canada

The final directive sent from the military officer in charge of building the atomic bomb, General Leslie R. Groves, to General Spaatz, Field Commander of the sortie dropping the atomic bomb, stated:

Dissemination of any and all information concerning the use of the weapon against Japan is reserved to the Secretary of War and the President of the United States. No communiqués on the subject or releases of information will be issued by Commanders in the field without specific prior authority. Any news stories will be sent to the War Department for special clearance.⁴⁷

By policy announced on July 23, 1945, all foreign dispatches on the atomic bomb were subject to clearance by the United States War Department's Information Office in Washington, D.C. The policy restricted the transmission of information about Hiroshima to one radio channel. Thus, the War Department's Information Office had sole jurisdiction on determining the kind of information being released to the Press because it alone decided how much information would be available and the phrases around which news stories could be printed. From the outset, Canadian newspapers were dependent upon American foreign press services for their information on the atomic bombings. Under the rubric of national security, everything North Americans learned through the media about the bombings had

⁴⁷Leslie R. Groves, Now It Can Be Told: The Story of the Manhattan Project (New York: Harper & Brothers, 1962), pp. 308, 346-48; also see Rachelle Linner, City of Silence: Listening to Hiroshima (New York: Orbis Books, 1995), p. 16.

been censored and as such, prepared by the United States War Department.⁴⁸

Initial press reports about the atomic bombing of Hiroshima saturated people with images of the bomb's enormous destructive power. The banner headline for the Fort William Daily Times Journal for August 7, 1945 read "Atomic Bomb of Terrifying Power Blasts Jap Base." Headlines for the articles about the atomic bombing confirmed that a monumental event had occurred. Phrases such as: "Huge Damage," "Stunned Nips," "New Ultimatum" and a "Big Role Played by Canada" reinforced the powerful impact caused by the atomic bomb and Canada's participation in building a technologically superior weapon. Only "enemy propagandists" protested the bomb's use under the heading "Japs Scream Atomic Bomb Is Inhuman," but even here the focus was on the catastrophic power of the bomb. Through these initial articles, the citizens of Northwestern Ontario, like those across the country, would learn about the destructive power of the atomic bomb.

Through media releases, the destructive force of an atomic bomb was identified with blast and fire and subsequent claims of atomic bomb victims dying from radiation sickness were vehemently denied. Eventually, the United States would recognize death from exposure to gamma radiation emitted by the initial explosion of the atomic bomb but would not admit to death from delayed, radioactive

⁴⁸For an exhaustive study on the political, ethical, and psychological effects of censorship on the American public, see Robert Jay Lifton and Greg Mitchell, Hiroshima in America: Fifty Years of Denial (New York: G.P. Putman's Sons, 1995).

fallout. The campaign to deny lingering radiation saturated the North American news wires with various articles. On September 12, the Daily Times Journal published an Associated Press clipping out of San Francisco whose headline read, "Experts Report: Atomic Toll Staggering" which quoted from Colonel Stafford Warren, chief medical officer of the Manhattan Project and head of the Hiroshima Investigation Team's medical component. While the destruction had been "much greater" than had been anticipated, Warren noted that, "there was no dangerous radio-activity lingering in the area."⁴⁹ Warren did not deny that radioactivity was produced by the atomic bomb, but casualties were from the initial explosion rather than afterwards from residual radiation. The reason for such certainty? "The bomb was designed as a blast weapon." A second article, "No Trace of Radio-action at Hiroshima" appeared two days later.⁵⁰ This article discredited rumours of relief workers falling ill after assisting in the evacuation of the wounded: "No measurable radio-activity was found under the point of detonation or elsewhere on the ground, streets, in ash cans or on other materials." The claim was given further credence by citing a Japanese "official" who reported that not one of the relief workers had died and, just in case there was some residual radiation, "none was affected seriously." Descriptions of the extent of damage caused by the bomb's blast occupied most of the article's space.

⁴⁹"Experts Report: Atomic Toll Staggering," Daily Times Journal, 12 September 1945, p. 13.

⁵⁰"No Trace of Radio-action At Hiroshima," Daily Times Journal, 14 September 1945, p. 5.

The pronouncement of no residual radiation or radioactive fallout ended the public relations campaign from Japan as the flow of information from Hiroshima virtually ceased after the denial of radiation dangers. On September 19, a press code was adopted that imposed Occupation approval for Japanese radio broadcasts, news articles, magazines stories, and other print media. As a result, publications of reports, commentaries, and treatises dealing with atomic bomb damages were forbidden. The Press Code ended on October 31, 1949, although the Allied Occupation enforced silence on A-bomb matters until 1951. Scholarly research picked up quickly after the occupation ended, but public discussion remained sparse until the 1954 hydrogen bomb test, BRAVO, sparked new interest in radioactive fallout.

The practice of pre-censorship had obscured the human cost by distracting public attention with questions of political control, with scientific explanations of how an atomic bomb worked, with justifications for its use and fantasies about its future applications.⁵¹ Significantly, the first graphic descriptions of human suffering were countered by reminders of Pearl Harbour and of bringing the war to a quick conclusion. Any compassion toward the suffering of the A-bomb victims was countered by descriptively

⁵¹One future scenario depicted the heating of the Great Lakes by detonating an atomic bomb over Lake Superior; the warmed water would keep shipping lanes open year round while creating a new "summer paradise" out of the frozen north capable of rivalling the Mediterranean vacation. This grotesque fantasy was one of hundreds and testified to people's ignorance about the nature of the atomic bomb. "Heating of Great Lakes by Atomic Power Held Possible," Daily Times Journal, 11 August 1945, p. 1.

lurid accounts of Japanese treatment towards prisoners of war. From these first crucial moments of the atomic age, references to the human experience were markedly limited and always presented in competition with other issues surrounding atomic energy.⁵²

Monica Braw wrote a path-breaking dissertation for the University of Ulam, Sweden, on the Occupation's Press Code. Accepted for publication, in the book she said that censorship had "distorted the post-war global nuclear debate by stilling the voices of atomic victims and by concealing basic information on the consequences of atomic warfare."⁵³ Steadfast denial of residual radiation and burial of the human suffering caused by the atomic bombings thwarted public discussion on the wisdom of pursuing a defence policy based on nuclear deterrence. Concealment of the human effects of the atomic bombing of Hiroshima and Nagasaki lie at the heart of civil defence measures and offers one such example of how the nuclear debate was distorted for the general public.

The need for civil defence in the postwar period was reinforced by the Soviet Union and the United States military establishments' desire to acquire, maintain and expand their nuclear arsenals. In order to sustain a program of nuclear weapons modernization, the military needed political and public support.

⁵²For information on the United States' domestic censorship practices toward atomic energy, see Patrick S. Washburn, "The Office of Censorship's Attempt to Control Press Coverage of the Atomic Bomb During World War II," Journalism Monographs 120 (September 1989): 1-43.

⁵³Monica Braw, The Atomic Bomb Suppressed: American Censorship in Occupied Japan (New York: East Gate Book, 1991), p. 16.

Political support was gained by restructuring international relations into two monolithic blocs. Public support was gained by suppressing the real nature of the atomic bomb and on the basis of a threat to national security.

A New System of International Order

In the aftermath of World War Two neither Russia nor the United States wanted war, but both were afraid of peace. In many ways, the Cold War was an "extension" of the Second World War - a new "system of international order" brought about as a direct result of their failure to settle the terms of peace.⁵⁴ Sustained by intense antagonism and hostility, neither superpower could ignore the perpetual threat of a nuclear end. Security became the substitute for peace. Canada endeavoured to achieve national security by two means: through the United Nations, particularly through the International Atomic Energy Commission (IAEC); and through military alliances, most notably the North Atlantic Treaty Organization (NATO) and the North American Air Defence treaty (NORAD). As it became clearer that the IAEC would not be able to develop an effective system of control for atomic weapons, Canadians turned to participation in continental and multilateral security alliances. These regional military alliances helped create

⁵⁴Reg Whitaker, "From World War to Cold War," Uncertain Horizons: Canadians and Their World in 1945, Canadian Committee for the History of the Second World War (Ottawa: Queen's Printer, 1997), p. 308.

a society that, in Richard Falk's words, was living in a "permanent pre-war posture" that makes "wartime" the "institutional norm."⁵⁵

In the autumn of 1945, Canada renounced any intention of building atomic bombs but, as noted by John W. Warnock, the government never renounced the use of atomic weapons, only their production.⁵⁶ This policy would influence Canada's actions on the United Nations' International Atomic Energy Commission. General A.G.L. McNaughton, Canada's first representative on the Atomic Energy Commission and Committee Chairman for the period of August 14 to September 14, 1946, worked hard to obtain a consensus between American representative, Bernard Baurch, and Soviet representative, Andrei Gromyko, on international control of atomic weapons. While McNaughton may have been sincere in his desire to reach an agreement, the Prime Minister's instructions were to forfeit a system of international controls over atomic energy if it required splintering the atomic alliance.⁵⁷ In short, McNaughton could seek to modify the Baurch Plan (the United States' proposal for international control of atomic energy) but could not advocate an alternate scheme.

When it came time for the Commission to vote on acceptance of the Baurch Plan, Canada voted with the United States and helped to ensure a stalemate which persisted for much of the following year.

⁵⁵Lifton and Falk, Indefensible Weapons, pp. 140-41.

⁵⁶John W. Warnock, Partner to Behemoth: The Military Policy of a Satellite Canada (Chicago: New Press, 1970), p. 95.

⁵⁷James Eayrs, In Defence of Canada: Peacemaking and Deterrence (Toronto: University of Toronto Press, 1972), p. 284.

In November 1947, then Under Secretary of State for External Affairs Lester B. Pearson, informed Canada's Advisory Panel on Atomic Energy that it was because of the intransigence of the Soviet Union that international control of atomic energy could not be achieved. General McNaughton remained silent on this issue, but years later, in 1965, he told an interviewer that the Baurch Plan was "insincerity from beginning to end."⁵⁸ According to Gordon Edward, founder of the Canadian Coalition for Nuclear Responsibility, there was a perceived need in Canada to maintain close ties with the American nuclear program since Canada's nuclear industry was dependent upon American support; Canada could not afford to expand its nuclear industry without plutonium sales to the United States.⁵⁹ Canada's acceptance of and participation in nuclear weapons proliferation helped create a governing consensus that differed little from the American views of nuclear strategy.

Attempts at creating collective defence arrangements through the United Nations were failing. The veto system of the Security Council effectively nullified its ability to act in situations of international crisis; and as much as Canadians yearned for "One World," security was not going to be found through the United Nations. The successive takeover of East European states by Communist parties, culminated in the communist coup of

⁵⁸Ibid., p. 295.

⁵⁹Edward Gordon, "Canada's Nuclear Industry and the Myth of the Peaceful Atom," in Canada and the Nuclear Arms Race, eds. Ernie Regehr and Simon Rosenblum (Toronto: James Lorimer & Co., 1978), p. 124.

Czechoslovakia in February of 1948. This event, taken together with the Soviet blockade of Berlin later that same year and the accumulation of Soviet land forces on their western border, prompted the creation of the North Atlantic alliance in 1949. The alliance offered the security guarantees that the UN was unable to provide. It restored political and psychological confidence, and a balance of power to Western Europe; the threat of a Soviet invasion was countered by the threat of nuclear retaliation from the United States. In Canada, the alliance was seen as a "necessity for stability" and substituted for the failure of the United Nations to provide for collective security.⁶⁰ At the same time, this multilateral alliance lessened Canadian fears of a "North American bunker" mentality developing in the United States, which threatened to undermine Canadian sovereignty. As one Canadian diplomat noted, "you were less likely to get raped if there were fifteen in the bed."⁶¹

The American monopoly on nuclear weapons was broken four months after the signing of the North Atlantic treaty, and that same year the communists under Mao Tse-tung won control of mainland China. In 1950, the invasion of South Korea by the Democratic People's Republic of Korea appeared as further proof that the Soviet Union was intent on expanding its sphere of influence. The full-scale conflict of the Korean War consolidated world power into

⁶⁰Tom Keating and Larry Pratt, Canada, NATO and the Bomb: The Western Alliance in Crisis (Edmonton: Hurtig Publishers, 1988), p. 19.

⁶¹Ibid., p. 22.

two blocs. The Western bloc understood the bipolarity as a policy of "containing" the expansionism of the Soviet Union, mainly by strategically placed military bases, a sort of cordon sanitaire. To the Russians, this appeared as "encirclement" and came to form one of the main themes of the Soviet Union's propaganda against "imperialism" in the Cold War; between the two superpowers, fears were reciprocal. Regardless of the system of government, wrote political scientist John H. Herz, "both blocs have in common the essential tendency to form one vast impermeable unit of territoriality under the leadership (or control) of one predominant state within the bloc."⁶² In its search for security, Canada had joined the collective security of the Western bloc.

Breaking from the study of Canada's position in interbloc history, British historian Mary Kaldor proposed an "imaginary war concept" which presupposes fear of an external enemy to address conflicts within the blocs.⁶³ Imaginary war was predicated on maintaining internal cohesion within the bloc and on military preparedness. Kaldor questioned whether there ever was a deep underlying conflict between East and West, suggesting instead that the two post-war social systems complemented each other: neither side intended to invade the other. Deterrence, instead of preventing war, actually contributed to keeping the idea of war and the idea of conflict alive.

⁶²John H. Herz, International Politics in the Atomic Age (New York: Columbia University Press, 1962), p. 126.

⁶³Mary Kaldor, The Imaginary War: Understanding the East-West Conflict (Oxford: Basil Blackwell Ltd., 1990).

Civil defence in Canada can also be regarded as a symptom of the imaginary war - in a permanent state of pretend war, civil defence preparations contributed to the normalization of wartime practices. Public interest in civil defence correlates strongly with brinkmanship politics, where intensified international hostilities were marked by an increase in war rhetoric. Against Soviet subversion, public support for a policy of deterrence was reliant on the cultivation of a belief in the possibility of survival - itself resting upon the presentation of civil defence programs. Through civil defence, Canadians could be taught to fear communism but not panic at the prospects of a nuclear war.

Creating the Enemy in the Public Mind

A crucial instrument in the selling of nuclear security was the promulgation of the concept of an external enemy. British physicist and former naval officer, P.M.S. Blackett, was an early critic of security based on atomic weapons. He foresaw that large stockpiles of nuclear weapons would only be tolerated by people convinced of a truly diabolical enemy: "Once a nation bases its security on an absolute weapon, such as the atom bomb, it becomes psychologically necessary to believe in an absolute enemy."⁶⁴ In

⁶⁴Quoted in Frank Barnaby, ed., The Gaia Peace Atlas: Survival into the Third Millennium (New York: Doubleday, 1988), pp. 45-6. In addition to contesting America's reasons for dropping the atomic bomb on Hiroshima and Nagasaki, Blackett challenged the widespread conviction that the Soviet Union would launch an attack on American cities as soon as it became technically feasible. By confronting this conviction he concentrated on the atomic bomb as the ultimate weapon of war. President Truman once remarked that Blackett's mistake was to analyze the atomic bomb as a weapon of war. The

the ensuing East-West conflict and competition, the military in each bloc fostered and maintained the other as the "absolute enemy" in order to sustain a political structure accepting of and dependent on nuclear weapons.

It was during the later half of the 1940s that Canadians came to regard the Soviet Union as the enemy. The first concerted government effort to vilify the Soviet Union was through the Gouzenko Affair. On September 6, 1945, Prime Minister Mackenzie King learned that a cipher clerk in the Russian Embassy, Igor Gouzenko, had defected with documents proving that Canadian civil servants were being used to provide Soviet intelligence with information. Gouzenko's defection became public knowledge five months later, when twelve men and two women were picked up by the RCMP and detained incommunicado.

Soviet espionage came as a startling surprise both inside and outside of government. Even before Gouzenko's revelation became public knowledge, top-level ministerial inquiries within the atomic alliance had ended any concerns that nuclear physicist Alan Nunn May, identified by Gouzenko to be a spy, had passed vital atomic bomb information over to the Russians. Nonetheless, a decision was made by Mackenzie King, British Prime Minister Clement Atlee, and President Truman to link the matter of Russian espionage with the problem of effectively controlling the atomic bomb. Reginald

annihilating factor precluded its use but the threat of its use could not be ignored and was useful as a political and diplomatic weapon, see Spencer Weart, Nuclear Fear, A History of Images (Massachusetts: Harvard University Press, 1988), p. 139.

Whitaker and Gary Marcuse argue that the decision to emphasize atomic spying was made because such a scandal would "damage the case" for international agreement on atomic bomb control while strengthening the unity of the atomic alliance.⁶⁵

The Taschereau-Kellock Royal Commission to investigate Gouzenko's claims of Soviet espionage inside Canada revived the wartime fear of the saboteur. After careful review of the hearings, Whitaker and Marcuse have concluded that: "Nothing in the activities of the Canadian scientists and technicians apprehended in the Gouzenko affair justified the inflated atom spy ring label that was (and has continued to be) attached to accounts of the affair."⁶⁶ Nonetheless, the Royal Commission managed to forge a political environment of animosity and hostility toward the Soviet Union while concomitantly creating consensus that communism was the antithesis of democracy. In searching out communist sympathizers the commissioners inferred guilt by association and increased the authority of the RCMP to undertake a "political policing" of society.⁶⁷ Civil servants, university professors, union representatives, civil liberty and peace organizations and the media were all screened for potential fifth column infiltration. The threat of being associated with a leftist or communist organization or with persons suspected of commiserating with

⁶⁵Reg Whitaker and Gary Marcuse, Cold War Canada: The Making of a National Insecurity State, 1945-1957 (Toronto: University of Toronto Press, 1994), pp. 36-42.

⁶⁶Ibid., p. 91.

⁶⁷Whitaker, "From World War to Cold War," p. 314.

communism truncated the political left. One method of absolving oneself of the label of traitor was to co-opt the official line that communism was a threat to the peace and security of the state. Proof of loyalty could be demonstrated by advocating preparedness measures. Such was the tactic employed by Dr. Cyril James, principal of McGill University, when his loyalty was called into question by the commissioners.⁶⁸

The Gouzenko Affair was presented to Canadians in the terms of wartime activities; of espionage and counter-espionage, of Russian blackmail and trickery, of innocent and not so innocent Canadians. The tale of Russian spying was a "sordid story" and influenced Canadian views on Russia's place in the new international order. Charges of Soviet spies transmitting to Moscow "everything a spy would be interested in," including information on the "atomic bomb, radar, military weapon developments, the Muskox expedition and Canada's economic life," led Canadians to believe that the former ally was exhibiting the behaviour of an enemy.⁶⁹ A few days later, Ottawa told Canadians that a "vast and treacherous fifth column" was gathering information "in the event of war." This "gigantic" spy ring was a "protective measure" by the Russians who "feel they are faced with a hostile world." Having insinuated that Russia regarded Canada as a potential enemy, Canadians were reminded that in the event of another war, "Canada might be in the path of

⁶⁸Whitaker and Marcuse, Cold War Canada, p. 107.

⁶⁹"Sordid Story of Betrayal is Uncovered," Daily Times Journal, 18 February 1946, p. 1.

invasion."⁷⁰ In Canada, amidst the "largest public reactions" to the atomic bomb, arose "this feeling that the lid was now off the Arctic."⁷¹ Soviet espionage strengthened the feeling of vulnerability since the activity of spying implied an unfriendly purpose.

By the time that civil defence was re-introduced into society, belief in the malevolent intentions of communism had been well established in the public mind. Creating a composite image of the enemy as evil and therefore aggressive was essential to win public support for continued nuclear weapons development and testing. Concomitantly, public awareness of the radioactive dangers to human health from nuclear weapons testing were markedly absent from the public forum. Under the guise of national security, the public was encouraged to accept nuclear deterrence as the best policy for preventing war.

However, in order for nuclear defence to make sense, nuclear war must be perceived as survivable. Civil defence was the key to making nuclear war appear as a localized disaster, easily managed by well-prepared municipalities. In the context of nuclear deterrence, civil defence contributed to the illusion that national security could be obtained through the maintenance of nuclear weapons, even after the harmful effects of radiation became known

⁷⁰"Vast and Treacherous Spy Ring is Disclosed Working for Russians," Daily Times Journal, 20 February 1946, p.1.

⁷¹John W. Holmes, The Shaping of Peace: Canada and the Search for World Order, 1943 - 1957 (Toronto: University of Toronto Press, 1979), p. 205.

to the public. Civil defence provided an "official" platform through which the seriousness of radioactive contamination could be minimized while sustaining fear in the potential danger of an enemy attack.

CHAPTER THREE

The Re-emergence of Civil Defence In Canada

Planning for Survival: Post World War Two Civil Defence in Canada

Implementing a small, informational program on civil defence was recommended by the Chief of Staff, General Charles Foulkes, during a December 1947 meeting of the Defence Research Board. Foulkes was worried about the growing number of "alarmist statements" being made on "the effects of atomic bombs and bacteriological warfare in which people were being told that there was no defence."⁷² Much of the public's apprehension was caused by John Hersey's Hiroshima which had just been released in paperback and was well on its way to becoming a commercial best-seller.⁷³ Initially written as an article for the New Yorker, Hiroshima described six people's experiences following the atomic bomb explosion. Letting the voices of the survivors carry the narrative, Hersey caught the magnitude of the catastrophe and the abhorrence of war. Everyone who read Hiroshima was reminded that the atomic bomb was not used upon an "enemy," a "city," or a "military garrison," but upon ordinary people. By the reading of Hiroshima, the wartime vilification of the Japanese race was vanquished and replaced with a popular desire to banish nuclear weapons. For General Foulkes, re-introducing the subject of civil

⁷²NAC, DNH&W, RG 24, Vol 5256, File 22.7.1(1), "Report on the Question of Civil Defence," Item 2.6 of the Defence Research Board, Meeting No. 5, December 15, 1947.

⁷³By 1948, Hiroshima had been through three printings. It had achieved fifty-six printings by 1985. John Hersey, Hiroshima (New York: Alfred A Knopf, 1946; Bantam Books, 1985).

defence would act as a counter-narrative to the growing "build up of a defeatist attitude in the country."⁷⁴ Foulkes was especially sensitive to public anxieties about the annihilating power of the atomic bomb. Such fears heightened the enigma surrounding radiation and increased support for a ban on nuclear weapons. It also undermined the rhetoric of the Cold War in its attempt to align the meaning of peace with the concept of security through nuclear deterrence.

The public's desire for a future world free of nuclear weapons hinged on the international control of atomic weapons. Hope for Great Power co-operation was widespread, extending even into remote lumber camps of northern Ontario. The "Atom Bomb" resolution passed by the Lumber and Sawmill Workers' Local 2786 of Port Arthur, Ontario in July of 1946 called for "banning the use of atomic weapons" and eliminating the "secrecy surrounding atomic processes."⁷⁵ In a logical twist, they asserted that the pre-war policy of appeasement was being "revived in the form of Atomic diplomacy." Canada, the resolution claimed, was a party to the appeasement. Proof of collusion were news reports of "diplomatic negotiations between Ottawa and Washington for a string of Atomic Bomb bases all across Canada's northland," and the "rapid

⁷⁴NAC. DNH&W, RG 24, Vol 5256, File 22.7.1(1), "Report on the Question of Civil Defence," Item 2.6 of the Defence Research Board, Meeting No. 5, December 15, 1947.

⁷⁵Thunder Bay, Lakehead University Archives, Oscar Styffe Collection, MG 7, Box 33, Vol 14, File I-1, "Atom Bomb," in the Report of the Eleventh Annual Convention, Lumber & Sawmill Workers' Local 2786, Port Arthur, Ontario, July 12, 1946, p. 3.

integration of Canada's economic, political and military policies with those of the United States."⁷⁶ The Lumber and Sawmill Worker's Local was not opposed to the use of atomic energy for peaceful purposes, but it was opposed to the use of atomic bombs as instruments of national policy, because under these conditions, atomic bombs threatened "the destruction of civilization."

The mounting failures of the International Atomic Energy Commission to formulate an agreement on the control of atomic energy coupled with Hersey's graphic descriptions of the human cost was raising public concern. Anti-war sentiment was finding public expression in the rise of political peace movements, such as the Canadian Peace Congress.⁷⁷ One way to circumvent the anti-war, anti-nuclear sentiment was by advocating civil defence preparedness measures. Civil defence, being premised on the assumption that it was possible to survive a nuclear attack, countered popular fears of atomic bombs ending human civilization. Assurances that the public could be protected from such an attack would, in turn, help to rationalize increases in military expenditures.

⁷⁶Ibid. While suggestions of atomic bomb bases helped to dramatize public fears of an atomic attack, no nuclear weapons were acquired for Canada until after the 1963 defeat of the Diefenbaker government. Nonetheless, during the St. Laurent government, three strings of radar posts were created along different northern latitudes. In 1951, the Pinetree Air Warning Line was established in the general vicinity of the Canadian-American border. This radar line was followed in 1953 by the Mid-Canada Line, also known as the McGill Fence, built along the 55th parallel. The last radar line built in Canada was the 1954, Distant Early Warning System (DEW-line).

⁷⁷Gary Moffatt, A History of the Peace Movement in Canada, 2nd ed. (Ottawa: Grape Vine Press, 1982), pp. 17-20.

There were no objections from the Defence Research Board to General Foulkes' recommendation, but decisive action did not occur until after the January 1948 meeting of the Cabinet Defence Committee. The Committee had been called together to discuss the decisions of the Permanent Joint Board on Defence meetings of November 20 and 21, 1947.⁷⁸ One of the agenda items concerned civil defence. General A.G.L. McNaughton, as Canada's Chairman of the Permanent Joint Board on Defence, drew attention to the fact that Canadians were at a "disadvantage" when discussing civil defence because "the responsibility for co-ordinating civil defence measures, which had previously been with the Department of Pensions and National Health, had not been fixed for the future."⁷⁹ Prime Minister Mackenzie King responded to McNaughton's remarks by stating that:

...for the time being responsibility for initial planning with respect to civil defence [would] be with the Department of National Defence, pending a decision as to which civilian department should take on this task permanently."⁸⁰

⁷⁸The Permanent Joint Board on Defence was seeking greater defence integration between Canada and the United States through co-ordination of training methods, standardization of equipment, reciprocal access to defence facilities, joint training exercises, and integrated air defence systems (which eventually resulted in the 1957 agreement on a joint command of air defence (NORAD)). Denis Smith, Diplomacy of Fear, Canada and the Cold War, 1941-1948 (Toronto: University of Toronto Press, 1988), pp. 161-64.

⁷⁹Quoted in Steven Hugh Lee, "Power, Politics and the Cold War: The Canadian Civil Defence Program and the North Atlantic Alliance, 1945-1959," p. 49.

⁸⁰Ibid.

From the outset, it was never intended that civil defence remain with the Department of National Defence, although for the first three years the organization's administration would be handled through the Army. The final impetus for re-establishing a civil defence program in Canada was a need to contribute to the collective defence of the continent, a defence ultimately founded on America's possession of atomic weapons. Assuring people that with careful planning individuals could be protected from the effects of an atomic bomb would help Canadians to accept a strategy of nuclear deterrence. The need for this strategy was reinforced by an increasingly bi-polar world and a growing fear of an "enemy within" which resulted in "a systematic red-baiting...by those in the highest places," in an attempt to associate the anti-nuclearists with communism.⁸¹

In October of 1948, Major-General Frederick Frank Worthington was called out of retirement, at age sixty-three, and appointed Federal Co-ordinator of Civil Defence and Special Advisor to the Minister of National Defence. Born in Peterhead, Scotland, General Worthington had enlisted in the Black Watch during World War One, serving in France and Belgium. He commanded the Fourth Armoured Division during the Second World War and in 1946 had been appointed Commander-in-Chief of the Pacific Command. When first appointed Civil Defence Co-ordinator and Special Advisor to the Minister of Defence, Worthington was expected to:

⁸¹Moffatt, A History of the Peace Movement in Canada, p. 20.

...keep abreast of the civil defence situation and plan the necessary organization with the appropriate agencies of the federal, provincial and municipal governments. ...At this stage he will act purely in an advisory capacity.⁸²

Worthington, however, was also an avid supporter of joint defence arrangements with the United States advocating "complete integration, complete standardization and even placing of Canadian forces under overall American command."⁸³ Thus, in addition to setting up a Canadian civil defence organization, Worthington also entered into negotiations with American civil defence authorities to ensure that civil defence measures would be integrated into the basic security plan for North America. Under the Mutual Aid Agreement of 1951, both Canada and the United States agreed to co-ordinate civil defence "for the protection of persons and property from the results of enemy attack as if there were no border."⁸⁴ The news release noted that "complete agreement was reached on all points so as to ensure complete co-operation on all matters regarding civil defence information, research, planning, organization, and training."⁸⁵ Coming in the second year of the Korean War, the announcement generated no objection from the press

⁸²NAC, DNH&W, RG 29, Vol 639, File 100-1-10, Memo from the Minister of National Defence, Brooke Claxton to The Governor General in Council, October 7, 1948.

⁸³Whitaker and Marcuse, Cold War Canada, p. 142.

⁸⁴NAC, Privy Council Office (PCO), RG 2, Series B-2, Vol 152, File D-100-C(U), "Defence of Canada - Civil Defence - Canada-US Cooperation," n.d.

⁸⁵Ibid.

corps, nor were questions raised about the possibility of competing political authorities in a borderless North America.

According to Worthington's wife and biographer, the Department of National Defence never expected civil defence to become anything more than a "token front."⁸⁶ Worthington did not agree and left to his own devices, he focussed on developing an organizational plan and gaining support for its implementation. In early 1949, he travelled to Europe to study the civil defence organizations operating in England, Scandinavia, and Germany before attending England's civil defence staff school. Upon his return, Worthington set up a cross-country promotional tour that garnered the interest and support of the provincial premiers, the St. John Ambulance, the Boy Scouts, the Red Cross Society, the Imperial Order of the Daughters of the Empire, the Canadian Medical Association, and the associations of Canadian nurses, police chiefs, pharmacists, and fire marshals.

One tactic used by Worthington to impress upon the premiers the seriousness of the need for a civil defence program was to

⁸⁶Larry Worthington, Worthy: A Biography of Major-General F.F. Worthington (Toronto: Macmillan Ltd., 1961), p. 223. 'Larry' is the childhood nickname for Frank Worthington's wife, Clara. Given the relationship of the author to the subject, the book was expectedly anecdotal, however, it was written while Frank was still alive and Clara could "nag" for details. Unfortunately, there is no other biography to counter Clara's reactions to her husband's various experiences with the armed forces. There is an undeniable bitterness that Clara harbours toward the civil defence program, which she associates with a growing sense of dejection in her husband as his own optimism for the programme waned. Clara blames the loss of optimism on federal resistance to the program's development and ignores the possibility that the change in demeanor may have been caused by a realization of what a nuclear war would mean for civilization.

arrange for at least one senior army officer to be in attendance at each meeting.⁸⁷ In addition to legitimizing the civil defence program with what appeared as Army support, in Worthington's opinion, military representation would also "constitute official recognition of the need of liaison at a later date."⁸⁸ Army Lieutenant General Guy Simonds was not impressed and disapproved the use of a military representative.⁸⁹ In Simond's view, the military's involvement in civil defence was only a temporary measure until a decision was made about which civil authority would be responsible for the program. The task of the army was to provide for the defence of the country - not for the protection of the civilian population. Simonds' objection to military representation at civil defence meetings was overridden by the Minister of Defence, Brooke Claxton,⁹⁰ and the practice continued until the program was transferred to the Department of National Health and Welfare in February of 1951.

Service associations were quick to champion civil defence measures. For some, such as the Boy Scouts and the Imperial Order of the Daughters of the Empire, civil defence appealed to their

⁸⁷NAC, PCO, RG 2. Series B-2, Vol 152, File D-100-C (1.1), "Civil Defence Memorandum" No. 17/50, May 1950.

⁸⁸NAC, DNH&W, RG 29, Vol 369, File 100-10-1, Letter to Brook Claxton from Frank Worthington, 13 March 1950.

⁸⁹NAC, PCO, RG 2, Series B-2, Vol 152, "Chiefs of Staff Committee Report," August 3, 1950.

⁹⁰NAC, DNH&W, RG 29, Vol 639, File 100-10-1, "Memorandum to Civil Defence Co-ordinator from Minister of National Defence," March 23, 1950.

sense of patriotic duty and of doing good works for the community. For others, such as the St. John Ambulance Association, support of civil defence validated first-aid training. General instruction also improved when casualty simulations were introduced for the training of civil defence rescue teams. St. John Ambulance recognized the value of simulating injuries and incorporated the practice into its own first-aid training programme.⁹¹

Municipal fire fighting services also benefitted from the introduction of civil defence. Standardization of firehose couplings was the first controversial issue that Worthington took on as a civil defence measure, with the full support of the Canadian Standards Association and Ontario Fire Chiefs' Association. It took two years for the financial details to be worked out with Ontario, the first province to agree to standardization, for a cost of \$900,000 (of which two-thirds was covered by the federal government).⁹² Standardization enabled fire companies to provide assistance anywhere in the province and eventually in the country. Fire equipment standardization formed a crucial element in the mutual aid policy of civil defence.

⁹¹Worthington, Worthy: A Biography of Major-General F.F. Worthington, p. 227.

⁹²Paul Deacon, "Our Civil Defense: Are the Borders Barriers?" Financial Post 8 September 1951, p. 7; "Standardization of Fire Equipment Speeded by Needs of Civil Defence," Financial Post, 15 September 1951, p. 23.

Worthington's cross-country publicity tour was well-timed. These "preliminary indoctrination conversations"⁹³ (as they were called by Worthington) were given a heightened sense of urgency with the successful Soviet explosion of an atomic device in August of 1949. Now that Canadians had to contend with the very real threat of an atomic attack, media interest in civil defence began to increase, and it became more difficult for the Department of Defence to keep civil defence at the planning stage. In the House of Commons, Defence Minister Brooke Claxton was being called upon to justify the lack of preparations and information available to the public. Mindful of the credibility problem experienced under the Air Raid Precaution program, Claxton argued that local civil defence committees would not be able to maintain the continued interest of its participants. If local civil defence committees were set up and:

...there was nothing for them to do except carry on for any considerable period the kind of training that civil defence groups would, then the men and women who would devote their spare time to this activity would soon cease to be interested in it, and would not be on hand should an emergency arise. The whole job would have to be done all over again.⁹⁴

By June of 1950, with the outbreak of hostilities in Korea, public anxiety concerning a possible Soviet attack could no longer be satisfied by the federal government plan and a skeletal organization. The public needed assurances that a nuclear attack

⁹³NAC, DNH&W, RG 29, Vol 639, File 100-1-10, "Memo from F.F. Worthington to Brook Claxton," 13 December 1948.

⁹⁴Canada, House of Commons, Debates, Vol 2, November 11, 1949, p. 1701.

could be survived; and to ensure survival, it was believed that planning at the community level was necessary. As the Financial Post reminded everyone, "civil defence is essentially self-help and self-defense and to be truly effective it has to get right down to the individual or community level."⁹⁵ In late August a Federal-Provincial Conference on Civil Defence was convened, and a Federal-Provincial Advisory Committee was formed to assign respective responsibilities.⁹⁶ The Advisory Committee agreed that provincial authorities should organize civil defence in municipal areas by providing information and training. The operational structure for civil defence would be based on community participation coordinated by a municipal Civil Defence Committee. The federal and provincial governments would identify the procedures and teach the public how to master them. At the second meeting of the Federal-Provincial Advisory Committee on Civil Defence, held in February of 1951, provincial responsibilities were confirmed and federal government responsibilities were defined. On this occasion, the transfer of federal responsibility for civil defence from the Department of National Defence to the Department of National Health and Welfare was also announced.

Paul Martin, Minister responsible for National Health and Welfare, did not welcome the transfer and found civil defence a

⁹⁵"Cities in Confusion, Wait on Ottawa Blueprint," Financial Post, 12 August 1950, p. 13.

⁹⁶NAC, PCO, RG 2, Series B-2, Vol 152, File D-100-C(1) "Dominion/Provincial Conference on Civil Defence."

"frustrating assignment."⁹⁷ In Cabinet, he voiced the concern that civil defence involved tasks "beyond the resources" of his department, and that no decision had been made on how much the federal government would contribute to the program.⁹⁸ Claxton suggested the federal subsidy should be as small as possible.⁹⁹ For the Department of Defence, building up combat strength took precedence over civil defence. Once responsibility for the program was passed on to another department, the military would assert that preventing an enemy attack was best achieved by increasing Canada's military strength and by pursuing arms production which would "lag" if funds and manpower were diverted for civil defence purposes.¹⁰⁰ The strained relationship between civil defence and the Army was on-going.¹⁰¹

⁹⁷Paul Martin, A Very Public Life, vol. 2: So Many Worlds (Toronto: Deneau Publishers, 1985), p. 146.

⁹⁸PCO, RG 2, Series A 5a, Vol 2647 "Cabinet Conclusions" Vol 23, (January 5 - 10 1951), p. 18. The Financial Assistance Programme was not finalized until 1956. The arrangements divided program costs between all three levels of government: the province was responsible for 25% of the cost, the federal government covered 50%, leaving the municipality to cover 25%. In 1959, the financing of civil defence projects was changed and the federal government assumed 75% of the cost of approved municipal projects. The provincial contribution was reduced to 15% and the municipality's to 10%. The change in the funding formula reflected a new duty given to the federal government, which assumed full responsibility for constructing a national air raid warning system.

⁹⁹Ibid.

¹⁰⁰Deacon, "Our Civil Defense: Are The Borders Barriers?" p.7.

¹⁰¹Federal responsibility for civil defence remained with the Department of National Health and Welfare until the retirement of Worthington in 1957. Responsibility was then divided between the Department of National Health and Welfare and the Privy Council Office, where an Emergency Measures Organization was created to

During Worthington's cross-country speaking tours, he had told various associations and civic leaders that civil defence could protect from an atomic attack: the claim presupposed the ability to show how such survival was possible. To this end, Worthington had produced a small booklet to assist provincial and municipal authorities in implementing a civil defence plan. The booklet, entitled Organization for Civil Defence, presumed a low risk of an atomic attack on Canadian cities. Accepting that the real threat to world peace was a Soviet invasion of Western Europe, the manual noted that Canada was in no immediate danger because the Soviet Union had neither the necessary number of aeroplanes nor a sufficient stockpile of atomic bombs to attempt "a series of saturation raids" on North America.¹⁰² By conclusion then, any atomic attack on Canada would be diversionary, and its purpose would be to cause panic, thereby reducing the ability of the armed forces to participate in the European war. Mass hysteria would

supervise the construction of government shelters. With two agencies now concerned with civil defence, a bureaucratic struggle ensued, ending in 1959 with the merging of the Civil Defence Organization with the Emergency Measures Organization and the further splitting of civil defence duties between the departments of Justice, Defence and National Health and Welfare. The Emergency Measures Organization stayed a cabinet secretariat responsible for radiological defence, emergency transportation, emergency communications, war supplies, and the Civil Defence College, while at the municipal level, greater emphasis was placed on planning for peacetime emergencies. Changing the municipal emphasis from wartime preparedness to peacetime disaster response was in reaction to public apathy about civil defence. See Joseph Scanlon, "The Roller Coaster Story of Civil Defence Planning in Canada," Emergency Planning Digest (April - June, 1982): p. 5.

¹⁰²Department of National Defence (Civil Defence), Organization for Civil Defence, Manual No. 1 (Ottawa: Queen's Printer, October 1950), p. 4.

force the military "into putting more of their resources into home defence than the military risks warrant."¹⁰³ Civil defence preparedness would fortify public morale, ensuring that the will to win would not be broken.

Reassuring Canadians that their personal fears of an atomic bomb were exaggerated, Organization for Civil Defence provided a government-endorsed conception of what society would look like after an atomic attack. Here, the consequences were projected as localized disruptions, easily repaired with help from the outside. Thus, for most Canadians, society would be no different than its pre-attack form. The problem was that no one could predict where an atomic bomb would fall. Survival plans were promoted as a prudent precaution of municipalities but few cities were expected to be hit by an atomic bomb.

Since the danger of an atomic attack was so slim, only municipalities with a population of over ten thousand were encouraged to formulate a survival plan.¹⁰⁴ Federal policy regarded the municipal civil defence committee as the "agency for action" but always in waiting, since volunteers would only be mobilized when the danger of an attack was imminent.¹⁰⁵ This feature of the survival plan limited widespread public

¹⁰³Ibid.

¹⁰⁴In Canada, there were fifty-nine incorporated cities, towns and villages with a population of ten thousand or more. See Dominion Bureau of Statistics, Census of Canada, 1951 vol. 1: Population (Ottawa: Queen's Printer, 1951) p. 3.

¹⁰⁵Canada, House of Commons Debates, Vol 1, February 5, 1951, p. 92,

participation in civil defence activities. For most of the 1950s, Canadians were not responsible for their own survival: individuals had been encouraged to leave preparedness measures with the municipalities. The plan outlined to the public how existing community resources could respond to an atomic attack and ensure their survival.

For many municipalities, however, interest in civil defence waxed and waned according to the degree of danger perceived in international affairs. This was the conclusion of Marijan Slaopek after assessing the response of Western Canadians to the Korean War. The Korean War brought a sense of urgency to civil defence planners, and in Edmonton and Calgary considerable debate occurred around the question of introducing compulsory civil defence training. After tracking various proposals for both evacuation and dispersal of people, and for identifying underground shelters, Slaopek noted that committee discussions never turned into actions. In time, the military stalemate in Korea alleviated peoples' fears of a world war and both Western Canadians and the media became more complacent toward civil defence.¹⁰⁶

Lapsing into spells of apathy was a common occurrence for both the general public and civil defence officials. Some considered the apathy a psychological response to the consequences of an atomic

¹⁰⁶Marijan Slaopek, "Western Canadians and Civil Defence: The Korean War Years, 1950-1953," Prairie Forum (Spring 1989): 85.

bomb, which were just "too horrible to face."¹⁰⁷ Paul Martin regarded apathy as a symptom of the credibility problem:

No one would deny that it [civil defence] was important, yet it took a slew of films, brochures and speeches to convince not just the average Canadian, but elected and appointed officials, to take precautions.¹⁰⁸

Civil defence was thought to be important because Cold War propaganda attested to the possibility of an enemy attack; but the probability of such an enemy attack was less convincing. In many municipalities, Canadians felt no sense of urgency to prepare either themselves or their cities to respond to an air attack which might never happen. Trying to convince people otherwise had become a priority of the federal civil defence program. In a 1954 progress report for Cabinet, Martin observed that after six years of civil defence re-activation, "not a single city in Canada...is even close to being ready to cope with the consequences of the dropping of a minimum 20 KT atomic bomb."¹⁰⁹ The lack of preparations was attributed to the problem of credibility:

Our civil defence to date has been largely an 'educational' effort, conditioning the general public to accept the possibility that destructive air attacks might come to our Canadian cities. Limited numbers of volunteers have been trained: limited amounts of supplies and equipment have been provided: but it must be frankly recognized that all our trained personnel, and all the supplies and equipment we have provided throughout all of Canada, would be entirely inadequate, even if they could

¹⁰⁷Wallace Goforth and Sidney Katz, "If the Russians Attack Canada," Maclean's Magazine, 15 June 1951, p. 9.

¹⁰⁸Martin, A Very Public Life, p. 147.

¹⁰⁹NAC, Paul Martin Papers, MG 33, Box 12, Vol 24, File "Civil Defence General," Memorandum to Cabinet on Civil Defence, November 1, 1954. p. 3.

be mobilized instantly at the desired point, to cope with one minimal atomic bomb dropped on one large or mid-size Canadian community.¹¹⁰

The problem was a matter of convincing Canadians of the need to implement civil defence measures and to train for emergency responses. The validity of civil defence measures was not seriously questioned until after the magnitude of destruction inherent in the hydrogen bomb became apparent; only then were civil defence measures criticized for lacking credibility. As Ernest Watkins of Saturday Night wrote in 1955: "...why expect me to be interested in arming a fire brigade with egg cups?"¹¹¹ The argument against the usefulness of civil defence moved from the remote possibility of an attack to the inadequacy of the measures.

Municipal Implementation of the Civil Defence Program: The Example of the City of Fort William

In the city of Fort William, a Civil Defence Committee was established by City Council in September of 1950. The Committee, composed of members from council and municipal services, namely fire, police, and utilities, was given authority to "act in any emergency," according to instructions given by either the provincial or the national Civil Defence offices.¹¹² The Executive Committee envisioned a "large scale organization" for

¹¹⁰Ibid., Appendix I, p. 3 (original emphasis).

¹¹¹Ernest Watkins, "Civil Defence a Failure Until it Makes Sense," Saturday Night, 16 April 1955, p. 7.

¹¹²Thunder Bay City Archives (TBCA), City Clerk Files (CCF), Box 218, File 67, "Letter from Sid Blake to the Mayor and Council," September 19, 1950.

civil defence in the city. In its structural plan, the Executive would be supported by four sub-sections: Administration and Control, Supply, Transportation and, Military Defense and Air Protection. Each sub-section was to create a plan of action and all plans were to be consolidated into a master plan under the direction of the Executive Committee. In addition to the four working sub-committees of the Civil Defence Organization, a warden system, to liaise directly with the Executive, was also devised.

Two years would pass before a master plan for emergency measures was presented to the public of Fort William.¹¹³ The plan was premised on one hour advance-notice of an enemy attack. The city was divided into six subdivisions, each having an "action depot" or "headquarter." Should an attack occur, civil defence rescue personnel would report to their respective action depots. The rescue teams each consisted of eight men and were responsible for "the release or extrication of trapped casualties in heavily damaged or dangerous buildings and debris."¹¹⁴ The police were responsible for maintaining law and order, preventing panic, and stopping the flow of unnecessary traffic. The wardens were responsible for providing leadership among the civilian population. They would form self-help groups to fight fires, act as stretcher carriers, give first aid, provide reconnaissance parties and give information to "tactical and technical teams." Mobile units, such

¹¹³"Civil Defence Plan Here is Perfected," Daily Times Journal, 19 March 1953, p. 1.

¹¹⁴Ibid.

as the fire department's auxiliary forces and ambulance crews were to meet at one of three rendezvous points, so chosen because of their distance from the city center. The citizens of Fort William were assured that public health functions would be "immediately" restored following an attack or disaster.

Focussing public attention on how municipal services would respond to an atomic attack presumed that the city, or at least a part of the city, had not been damaged by an atomic bomb explosion. For those unlucky enough to be directly under the bomb's explosion, no help was available and civil defence never presumed to save these lives. Survival plans were about helping the survivors on the periphery of ground zero, where the use of civil defence officers could be justified. The preparedness plan was a functional response to the nuclear crisis. It involved the active participation of the public service sector which was given clear and concise roles to perform in case of an attack. The master plan outlined to the civilian population how an atomic attack could be managed, which in turn, helped legitimize a defence policy of nuclear deterrence.

Municipal civil defence committee participation in mock atomic attack exercises also attempted to assure the general public that their survival plan was effective. In this instance the goal of the exercises was to promote optimism and encourage trust in the civic planners. As the intent was to create routine out of a panic situation, the exercises themselves tested mainly the capabilities of the civil defence officials. In most instances the exercises

were "physical endurance tests" based on sleep deprivation.¹¹⁵ Although the Americans conducted actual evacuations in some cities, and concentrated on physically relocating and organizing a core federal executive to manage communications and industrial restructuring, the Canadian experience in the 1950s was much more theoretical. Often it was only the members of the municipal civil defence committee who participated in the mock attack exercises and care had to be taken at the federal level to ensure that the exercises did not interrupt the work week, when volunteer participation would, at best, be minimal.

The 1956 Alert Exercise II was poorly attended by Canadian civil defence organizations. The problem was that the three-day event (July 20-23) occurred in the middle of Canada's holiday season. The only province to have full participation was Ontario; all other provinces could only guarantee the participation of their provincial headquarters (except Newfoundland and Prince Edward Island), and one or two municipalities.¹¹⁶ As usual, the exercise tested communication systems and control room procedures. The attack scenario was provided by federal umpires assigned to provincial headquarters and fully staffed municipal civil defence committees. At the appropriate moment, umpires provided mock field

¹¹⁵Interview with Mr. Paul Werk, former Provincial Civil Defence Regional Representative for Northwestern Ontario, interview by author, 18 November 1996, tape recording, Thunder Bay Art Gallery.

¹¹⁶NAC, Department of National Defence (DND), RG 29, Vol 665, File 106-2-15(1) "Canadian Pacific Telegram from Worthington to Major General Hatton."

messages intended for local emergency service operations and, having provided the problem, would then monitor and evaluate the efficiency of the control rooms' response. For the 1956 exercise, emphasis was on the communist saboteur. For instance, a railway bridge was theoretically made inoperative because of sabotage and a radio station was blown up by saboteurs. Other mock problems were announced, such as: "enemy agents were making false announcements on the radio;" "subversive pamphlets, not in accord with Federal Civil Defence policy were being distributed;" "press stories were causing panic among evacuees, censorship not tight enough, can you do something" and; "government liquor store entered by local hoodlum encouraged by subversive element, request additional police."¹¹⁷ In every case, attention was drawn to the role of the civil defence officer in maintaining social control while for the public, civil defence emphasized the success of preparedness (theoretically) to deal with reported damages and casualties.

Support for civil defence preparedness was further solidified by federal training courses hosted at the Civil Defence College in Arnprior, Ontario. The College was key to mobilizing, training, and organizing civil defence at the community level. The week-long courses were aimed at educating the governing sector of a community by targeting municipal and service employees, and key personnel from private sector organizations. Between 1951 and 1952, fourteen persons from the City of Fort William would attend the Arnprior

¹¹⁷NAC, DND, RG 29, Vol 665, File 106-2-15(2) "Exercise Alert III," Umpires Conference, July 4-5, 1956.

College.¹¹⁸ The impact of these training courses is seen in the first Year End Report of the Fort William Civil Defence Committee (1951). While at the inaugural meeting of the Executive Committee the objectives of civil defence were defined as taking charge of "any" disaster, maintenance of essential services, and providing emergency protection to the citizens of Fort William, these practical goals were soon overshadowed as civil defence became more narrowly defined as:

The protection of the home front by civilians acting under civil authority to minimize casualties and war damage and preserve maximum civilian support of the war effort.¹¹⁹

Training courses were also a key component of the public education program. Responsible members of society would attend the Civil Defence College for intensive indoctrination on issues of nuclear warfare. The participant, (for example, the neighbourhood pharmacist), became the regional representative and was expected to return back to the community to apply and disseminate the information to the local population.

Among those from Fort William who attended the first year of training courses were Merle Pringle and Margaret Stitt. Both were registered nurses; Miss Pringle was working for the Victoria Order

¹¹⁸Persons attending the Civil Defence College include: the Civil Defence Co-ordinator, the Fire Chief, two registered nurses, the city clerk and engineer, a cemetery supervisor, two Alderman, a Safety Supervisor of the Great Lakes Power Company, the president of Canada Car and Foundry Company, and Fort William's Hydro Electric Commissioner.

¹¹⁹TBCA, CCF, Box 218, File 67, Civil Defence Committee, Year End Report, December 15, 1951, p. 1.

of Nurses and Miss Stitt was employed as an instructor at the McKellar Hospital.¹²⁰ Each would "graduate" from the course on Civil Defence in Atomic, Biological and Chemical Warfare. In turn, they conducted a seven-week course for members of the St. John Ambulance Corps and for registered nurses working in the city of Fort William. In total, 140 members of the community were "briefed on the vital components to national security, the preparation and training of civil defence workers and the management of casualty problems."¹²¹ In her opening speech to the audience, Miss Pringle noted that:

Panic may take more lives than the actual attack. A community which already has sound mental health and good intergroup relationships, if given factual knowledge about the possibilities, would be most able to reduce and prevent panic."¹²²

Management of fear was the most important message delivered by federal authorities to community representatives and to the public at large. Indeed, one of the first strategies of civil defence was to manage the public's emotions about the validity of nuclear warfare. Guy Oakes, author of The Imaginary War: Civil Defense and American Cold War Culture, contends that the civil defence strategy of "emotional management" was necessary to channel public anxieties

¹²⁰"140 Nurses Briefed on Defence Planning," Daily Times Journal, 24 January 1952, pp. 1, 20.

¹²¹Ibid.

¹²²Ibid.

about nuclear war and convince people that their fears of annihilation were groundless.¹²³

Civil defence strategists created a false distinction between nuclear terror and nuclear fear. Nuclear terror was perceived as a problem of panic capable of destroying public morale, possibly igniting civil unrest and ensuring a Soviet victory. Nuclear terror would subvert the credibility of deterrence by undermining the will of the people to risk a nuclear war. Civil defence taught the public that nuclear terror was abnormal while nuclear fear was a normal response to the threat of a nuclear war. Everyone experienced fear, but fear could be managed through correct preparations and "self-mastery." Conquering nuclear fear was a persistent theme of civil defence. In 1960, responding to public fears of death by radiation, W.F. Scott, Chairman of the Ontario Provincial Emergency Measures Organization, sent a letter to every municipal clerk, civil defence co-ordinator, and fire chief in Ontario reminding everyone that radiation decays quickly, that fallout shelters provide protection, and that fear is vanquished by knowledge:

While dangers from radioactivity in war or peace can be very real, very definitely these dangers can be greatly reduced by knowledge, training and preparation. There is no need to panic or to throw up one's hands and feel that nothing can be done.¹²⁴

¹²³Guy Oakes, The Imaginary War: Civil Defense and American Cold War Culture (New York: Oxford University Press, 1994), pp. 46-71.

¹²⁴TBCA, CCF, Box 218, File 67(3), W.F. Scott, Chairman, EMO-Ontario to All Municipal Clerks in Ontario, Civil Defence Coordinators, and Fire Chiefs, July 25, 1960.

The general population was educated on the management of an atomic attack through mass mailings. Andrew Grossman, in his study of civil defence in the United States, argued that, "Mass education was a domestic propaganda enterprise; its fundamental purpose was to manage the way the general public understood atomic weapons and their effects."¹²⁵ The same would hold true for Canada. In the city of Fort William, public education was a priority of the Civil Defence Committee. Within three months after its formation, a pamphlet, "for the information of the citizens of the Lakehead", was mailed through the utility bill.¹²⁶ Unfortunately, no copy of the pamphlet has survived. A second mass mailing occurred between 1951 and 1952, prior to the first hydrogen bomb test. Produced by the Canadian Federation of Mayors and Municipalities, this thirty-two page booklet entitled, "Can You Survive?", was mailed to every household within the city limits of Fort William. On the inside cover was a personalized message, addressed to "The Citizens of Fort William from Mayor Badanai, Chief Executive of the City of Fort William Civil Defence Organization." The emphasis was on demystifying atomic warfare. If the "facts" were understood then Fort William could "avoid the possibility of panic or hysteria in the event of a conflagration."¹²⁷ Within the text of the booklet

¹²⁵Andrew D. Grossman, "Atomic Fantasies and Make-Believe War: The American State, Social Control, and Civil Defense Planning, 1946-1952," Political Power and Social Theory 9 (1995): 108.

¹²⁶TBCA, Year End Report on Civil Defence, 1951, p. 7.

¹²⁷Canadian Federation of Mayors and Municipalities, Can You Survive?, n.d., (Frontispiece), TBCA, CCF, Box 218, File 67 "City of Fort William Civil Defence 1950-1955."

citizens are told that, "they must have confidence in survival" and that:

...no training is required other than a training of your own mind so that you will be prepared without confusion - without the inordinate fear that could stifle your chances in an emergency.¹²⁸

The atomic bomb was conceptualized for the public as just a more powerful conventional bomb - the arms race was not to worry people because nuclear weapons could never destroy civilization:

...remember that the atom bomb is the modern scientific counterpart of the old bomb....it is important to note that virtually every modern device has limitations of one kind or another....With its dynamic force and its rather violent radiation the atom bomb can do just so much and nothing more and the wonderful world we live in will never be torn asunder by one or a million of them.¹²⁹

Civil defence was about social control. It was intended to manage people's fears, imaginary or real, by reassuring the individual that survival from a nuclear attack was possible.

The Subject of Radiation in Civil Defence Planning

The most glaring omission in the initial Fort William civil defence emergency plan was the issue of radiation. The civil defence concept of atomic warfare as a localized disaster was achieved in part by minimizing the danger from radioactive fallout and its associated health hazards. This in turn helped to depict the atomic bomb as just another, albeit more powerful, conventional weapon. Using Hiroshima's atomic bombing as the example, it was

¹²⁸Ibid., p. 4.

¹²⁹Ibid., p. 5.

common for civil defence tracts to equate the energy released by an atomic bomb to twenty kilotons of conventional high explosive trinitrotoluene (TNT). The comparison fixates on the power of the explosion and ignores all qualitative differences. For instance, the heat produced by twenty kilotons of TNT reaches a maximum temperature of 5,000 degrees centigrade while the maximum temperature of an atomic bomb of equivalent yield is several million degrees centigrade.¹³⁰ It is the extreme temperature of the fireball that releases thermal radiation. During the Second World War, the blast of a one ton conventional bomb would collapse wooden houses within a radius of forty meters, whereas the blast of the Hiroshima bomb collapsed wooden houses within a radius of two kilometers.¹³¹ Merging the distinction between nuclear and conventional weapons and down-playing the differences soothed people's concerns about surviving a nuclear war and muted appeals for the eradication of nuclear weapons.

While it is true that atomic bombs do kill by blast and fire, atomic bombs also kill by radiation. Three main arguments were used in civil defence tracts to counter public fears of death by exposure to radiation: government authorities emphasized that radiation was a natural substance, that it had important medical benefits and that fear of radiation was more dangerous than radiation itself. Catherine Caufield's sometimes shocking book

¹³⁰The Committee for the Compilation of Materials on Damage Caused by the Atomic Bombs in Hiroshima and Nagasaki, p. 32.

¹³¹Ibid., p. 39.

chronicles the United States' compromises between the need for nuclear testing and the risks of radiation exposure. "By 1950," Caufield writes:

the public had largely accepted the government's line on radiation. The prevalent attitude was that it was unreasonable, dangerous, and perhaps traitorous, to rail against radiation and the bomb.¹³²

The climate of fear and suppression of the individual's right to free speech was also prevalent in Canada. Over a span of eight months, from October 1950 to June 1951, the Royal Canadian Mounted Police processed almost fifty-four thousand enquiries, screening civil servants and private-sector workers for communist affiliation.¹³³ Throughout the 1950s, persons questioning the practicality of Canada's defensive alliances, the wisdom of economic and military integration with the United States or supporting neutrality risked being labelled a communist. Municipal civil defence organizations in Ontario received a steady flow of anti-communist literature that warned about the "communist apparatus" wanting to split the Western alliance, under the slogan "disarmament, neutrality, peace and independence in foreign affairs."¹³⁴ Civil defence officials were reminded that the "single greatest deterrent to Communist expansion" was the armed

¹³²Catherine Caufield, Multiple Exposures: Chronicles of the Radiation Age (Chicago: University of Chicago Press, 1989), p. 103.

¹³³Len Scher, The Un-Canadians. True Stories of the Blacklist Era (Toronto: Lester Publishing Ltd., 1992), p. 9.

¹³⁴TBCA, CCF, Box 218, File 67(3), Alert, May 27, 1960, p. 1.

forces of the United States.¹³⁵ To question the defensive policy of nuclear deterrence and the hazards associated with nuclear weapons testing was to expose oneself and one's family to accusations of being a communist a label that threatened access to employment.

On matters of radiation, Worthington depended upon information released in the United States. Among the early unclassified government reports, The Effects of Atomic Weapons was commended by the United States' Civil Defence Office for providing "a source of scientific information for technical personnel engaged in civil defense planning activities."¹³⁶ Prepared by the Department of Defense and the United States' Atomic Energy Commission, the report admits to the possibility of radioactive fallout but notes that:

...only in exceptional circumstances would the intensity of the activity be great enough to constitute a hazard upon reaching the ground. The evidence from the Hiroshima and Nagasaki atomic bomb explosions, where the height of burst was about 2,000 feet, is that casualties ascribable to the radioactive fall-out were completely absent. However, if the bomb burst occurred relatively close to the ground, a situation which would be uneconomical from the standpoint of the destructive effect...fall-out would have to be considered as a danger.¹³⁷

¹³⁵Ibid., p. 2.

¹³⁶United States Department of Defense and the Atomic Energy Commission, The Effects of Atomic Weapons (New York: McGraw-Hill Book Company, 1950), preface.

¹³⁷Ibid., p. 35. The Committee for the Compilation of Materials on Damage Caused by the Atomic Bombs in Hiroshima and Nagasaki, sets the detonation height at around 580 meters and 500 meters in Hiroshima and Nagasaki, respectively (p. 53). According to General Groves' autobiography, Now It Can Be Told, the 2,000 feet height of detonation was based on calculations made by members of the United States' Atomic Bomb "Manhattan" Project who were trying to determine the optimal height of burst for the atomic bombings (p.

The influence of the Commission's report can be seen in Worthington's manual. When describing "the most likely form" of attack, Organization for Civil Defence encouraged municipalities to reject a premise of ground and underwater bursts (where radiation prevented "unprotected" workers from participating in rescue operations), asserting that the most "effective use" (and therefore most probable use) of the atomic bomb was a high altitude detonation of two to three thousand feet above ground level. At this height, radiation would "not contaminate anything" but "widespread material damage" would occur.¹³⁸ Worthington's manual was emphatic: "The main threat of the atom bomb is not radioactivity but blast and fire."¹³⁹

Organization for Civil Defence was the first civil defence manual available to provincial and municipal civil defence officials. This manual was quickly followed by a series of specialized civil defence booklets intended for individual municipal emergency services and were most often distributed during civil defence training courses. Minimizing the perceived danger of exposure to radiation was integral to each of the booklets. With the information provided in Radiation and Monitoring Fundamentals for the Fire Service it was hoped that any fear of radiation would

299). Between 9am and 4pm, in Hiroshima, "black rain" containing radioactivity and carbon from the firestorm came down painfully striking the burned, inflamed, and desquamated skin of the survivors.

¹³⁸DND, Organization for Civil Defence, p. 17.

¹³⁹Ibid., p. 19.

turn into a "respect" for radiation. Written by the International Association of Fire Chiefs, the stated purpose of the booklet was to debunk some of the exaggerated statements made about radiation. Contending that public fears were groundless, firemen, with their "new knowledge on limits of radiation hazards," were called upon to dismiss the "widely featured concept" of "defeatism" and its "area of doom" defined by the "specter of radiation poisoning, engendering a take to the hills philosophy."¹⁴⁰

For the fire service, fear of radiation was overcome by emphasizing the rapidity of radioactive decay. In Radiation and Monitoring Fundamentals, firemen learned about the limits of radiation by studying mathematical calculations that demonstrated the decreasing intensity of radioactive emissions until eventually, the radioactive atom changed into a non-radioactive atom. The rapidity of the transformation was such that firemen only had to wait "one to one-half minute," following an air burst, before "moving right in and rescuing the injured and trapped survivors."¹⁴¹ As with every other manual, a cautionary statement was provided about serious radiation hazards from underwater, underground, or ground bursts. Rescue operations would have to wait "a little longer" before entering damaged areas.

In 1952, the Registered Nurses Association of Ontario published Civil Defence Nursing Aspects to address the issue of

¹⁴⁰International Association of Fire Chiefs, Radiation and Monitoring Fundamentals for the Fire Service (New York: Midston House, 1952), p. ii.

¹⁴¹Ibid.

radiation. The manual admitted that with "the present status of medical knowledge there [was] no specific therapy" to cure the body of the effects of radiation injury.¹⁴² Care for victims of radiation sickness was mainly "emotional guidance" in which the nurse would "reassure" the victim that exposure to radiation was not necessarily fatal or permanently disabling.¹⁴³ With no special medical treatment to teach, the manual appealed to the spirit of patriotism to gain the nursing profession's support for civil defence. Nurses were reminded that civil defence was a "vital component to national security" and that the "best possible deterrent" against an atomic attack was a well organized civil defence organization and an efficient military defence program.¹⁴⁴ By participating in civil defence, nurses would "share, as responsible citizens, in the defence of democracy."¹⁴⁵

Civil defence statements about the minimal health risks from radiation exposure were brought into question following the 1954 United States' hydrogen bomb test code-named BRAVO. This test was the first full scale hydrogen bomb detonation, although an earlier prototype had been exploded in 1952. The hydrogen bomb uses the heat generated from an atomic explosion to trigger a nuclear fusion explosion. The test was conducted on March 1 at Namu Island in the

¹⁴²Sub-committee on Civil Defence of the Registered Nurses' Association of Ontario, Civil Defence Nursing Aspects (Toronto: Civil Defence Committee of the Province of Ontario, 1952), p. 28.

¹⁴³Ibid.

¹⁴⁴Ibid., p. 31.

¹⁴⁵Ibid., p. 5.

Bikini atoll of the Marshall Islands and was one thousand times more powerful than the Hiroshima atomic bomb.¹⁴⁶ (The United Nations mandated the Marshall Islands as a protectorate of the United States in the aftermath of World War Two. The islands became an off-shore site for the Atomic Energy Commission's nuclear weapons testing programme.) BRAVO spewed radioactive dust thousands of square miles across the Pacific Ocean and miles high into the stratosphere.¹⁴⁷ Within four hours of the explosion, fallout was settling on the people of Rongelap, a small island 115 miles east of Bikini, and on the crew of a Japanese tuna trawler, the Fukuryu Maru (Lucky Dragon). The crew had been anchored approximately forty miles outside of the U.S. designated danger zone when the snow-like debris began falling.¹⁴⁸ The fallout lasted for approximately five hours after which the crew of the Fukuryu Maru hosed the fine ash from its deck and headed for home. By the time they reached port all twenty-three crew members were suffering from nausea, headaches and bleeding gums, the classic signs of radiation sickness. News of the crews' radiation sickness touched off a tuna scare in Japan and the government responded by inspecting fish for radioactive contamination; in all, one million pounds of fish were

¹⁴⁶Caufield, Multiple Exposures, p. 112.

¹⁴⁷United States Atomic Energy Commission, L.L. Strauss, "Report by the United States Atomic Energy Commission on the Effects of High Yield Nuclear Explosions," February 15, 1955. According to this statement by Lewis Strauss, the total territory contaminated by radioactive fallout was seven thousand square miles; also see, Caufield, Multiple Exposures, p. 113.

¹⁴⁸Caufield, p. 144.

destroyed.¹⁴⁹ For seven months the seamen remained in hospital receiving blood transfusions. Sadly, one member died in September of 1955. The United States ambassador to Japan sent a cheque for \$2,800 to this man's widow as a "token of deep sympathy" and \$2 million was paid to the Japanese government for losses to the fishing industry.¹⁵⁰

Damage control was quick and effective in the United States. "In the strictest of confidence," Lewis Strauss, Chairman of the Atomic Energy Commission told James Hagerty, President Eisenhower's press secretary, that the Japanese fishing trawler was actually a sophisticated "Red spy outfit" conducting illegal surveyance of the American test.¹⁵¹ Strauss then added, "If I were the Reds, I would fill the oceans all over the world with radio-active fish. It would be so easy to do!"¹⁵² In his press conference Strauss avoided any mention of Red spies or radioactive fish. He expressed "regret" for the crew members but reminded everyone that the Fukuryu Maru had "ignored the AEC warning" and were exposed to the fallout because of an "inadvertent trespass."¹⁵³ The burns experienced by the fishermen, Strauss explained, were "due to the chemical activity of the converted material in the coral rather

¹⁴⁹Ibid., p. 114.

¹⁵⁰Ibid.

¹⁵¹Quoted in Robert Divine, Blowing on the Wind: The Nuclear Test Ban Debate, 1954-1960 (New York: Oxford University Press, 1978), p. 11.

¹⁵²Ibid., p. 12.

¹⁵³Ibid.

than to radioactivity."¹⁵⁴ Reassuring the public that radioactive fallout would quickly disappear, he concluded by praising the test for the military gains it had given to the United States. Perhaps the most important consequence of the BRAVO test was that the hazardous effects of radioactive fallout became declassified information. For civil defence proponents, the issue of preparedness against radioactive fallout could no longer be said to be of minimal concern to survival.

To sustain public support for continued nuclear weapons testing, Cold War rhetoric underscored the fear of being "too soft" as an indication of disloyalty by stressing that the effects from radioactive fallout were preferable to a Communist takeover.¹⁵⁵ Nuclear adherents argued that ending nuclear weapons testing would be a danger to national security and that the proponents of test ban treaties were spreading Communist inspired propaganda; that maintaining nuclear weapons testing prevented the possibility of a Third World War; that testing preserved the peace and, as such, preserved life; that the injuries sustained by radioactive fallout from nuclear weapons testing represented a "slight risk" compared to the dangers of a nuclear war and; with continued testing, more information could be learned about radioactivity and eventually a "clean bomb" could be built which would kill with just blast and heat. Nor was the need for civil defence overlooked in the

¹⁵⁴Weart, Nuclear Fear, A History of Images, p. 186.

¹⁵⁵The arguments for sustaining nuclear weapons testing were taken from Divine, Blowing on the Wind, pp. 54-57.

rhetoric. AEC Chairman Strauss surmised that any halt in hydrogen bomb testing "would cripple civil defence planning against possible nuclear war" on the grounds that "the survival of our people...depends...from the civil defence viewpoint, on information which is derived from our own carefully controlled nuclear tests."¹⁵⁶

The ability of the hydrogen bomb to devastate vast areas of land and spread radioactive fallout hundreds of miles downwind undercut the prevailing idea of civil defence responding to a localized disturbance. The periphery could no longer be fixed to the radius of physical damage and the inability to know in advance which way the winds would carry the radioactive dust undermined the concept of mutual aid. Officially, civil defence never gave up on municipal emergency plans but after 1954, emphasis of the program gradually began to shift responsibility for wartime survival planning on to the family and the individual while natural disaster planning became the purview of the municipalities. Concern for rebuilding communities was dropped from the agenda; perception of life after a war with hydrogen bombs bordered on the realm of annihilation - life would not go on as it did before - the war would be a war of survival.

Civil defence now focussed on the survival of the individual and the Civil Defence College at Arnprior began emphasizing to the trainees the practicality of private shelters. Fort William Mayor,

¹⁵⁶NAC, DNH&W, Civil Defence Bulletin, Vol 59 (October-November 1956), p. 4.

Ernie Reed, attended a week long course at the College in 1961. Upon returning to Thunder Bay he addressed the Rotary Club, Kinsmen, and Kiwanis on the value of building basement shelters. The speech challenged the notion of annihilation and the destructive range of a nuclear bomb. Reed's paper went on to say that basement fallout shelters would reduce the immediate dose of radiation so that the individual "would not be seriously affected by the long-term effects of this radiation." Only a minority of people were expected to remain fourteen days in a shelter: the majority would stay below ground for only "a few days." Possible genetic damage resulting from a nuclear war would increase by one percent the number of children born defective. Simply put, radiation was not life threatening for those who took precaution. As Reed counselled his audiences on radioactive fallout, "remove the danger, remove the dust."¹⁵⁷ That, as later studies would point out, was a forlorn hope.

¹⁵⁷Thunder Bay Historical Museum, A88/1/1, "Civil Defence Speech, Sharing our Responsibility for Public Survival," and "E.M.O. Speech No. 2," by Ernie Reed, ca. 1961-1962.

CHAPTER FOUR

Federal Civil Defence Policies for Civilian Protection

The Policy of Evacuation

During the early 1950s, the key civilian role in a future atomic war was to sustain industrial production, and the main objective for civil defence was to "keep communities together as producing units."¹⁵⁸ This was the opinion of Colonel Wallace Goforth, "an acknowledged expert" on atomic warfare. Goforth rejected any plan for mass-evacuation as both "naive and impossible" - naive because wholesale evacuation of target cities also meant abandoning "vital production centers." It was not that Goforth was underestimating the destructive capability of atomic weapons, but he was assuming that not all cities would be bombed; and since no one knew for certain when or where an atomic bomb would be dropped, it was not logical to encourage (as a plan for mass-evacuation would) the complete abandonment of industrial activity. As a defence strategy, Goforth argued that any support for mass-evacuation was "an open admission of defeat" and seriously

¹⁵⁸Wallace Goforth and Sidney Katz, "If the Russians Attack Canada," Maclean's Magazine 15 June 1951, p.72; also see Alden Bevier, "Civil Defence - The Role of Public Welfare," Canadian Welfare 30 (1 May 1954): 12-17. Colonel Goforth had been an Assistant Professor of Political Economy at McGill University before serving as Director of Weapon Requirements and Development during World War Two. His main field of research focussed on winter warfare. After the war, as Assistant Director General of Defence Research, Goforth was a significant contributor to the establishment of Canada's Defence Research Board. He retired from the Army in 1947 but would provide the occasional commentary on Canadian civil defence. See Captain D.J. Goodspeed, A History of The Defence Research Board of Canada (Ottawa: Queen's Printer, 1958), pp. 28-44.

jeopardized Canada's survival as a nation. In the next war Canada would no longer be beyond the range of bomber aircraft; industry had to come to grips with the fact that its factories had become part of a "front-line position" and would have to "be held" at all cost. A policy of mass-evacuation, Goforth reasoned, would only encourage workers to "desert" their jobs under the "threat of enemy fire."

Goforth also argued against the logistics of a mass-evacuation, contending that it was "physically impossible to hurriedly evacuate a large city," especially if that city had been bombed. From a planner's perspective, undamaged highways would quickly clog, closing down access routes for emergency goods and relief workers. No one denied that a mass-evacuation would interfere with production and that "the effect upon the manufacturing potential would be disastrous," but the possibility of "select groups" being evacuated was not without its merit.¹⁵⁹ Pregnant women, the elderly, and young children were cited as legitimate evacuees for whom assistance in relocation outside of "target" cities was not unconscionable; other "non-essential" workers could voluntarily leave but would have to depend on their own initiatives in finding accommodations. A spokesperson for civil defence noted that the logistics of a partial evacuation policy were considered manageable, although the public needed to be prepared to expect that "the summer cottage population [was] likely

¹⁵⁹K.B.F. Smith, "It Can Happen Here," Industrial Canada 52 (February 1952): 34.

to increase greatly."¹⁶⁰ Civil defence officials were confident that "thousands" of people could be housed in conditions not exactly "comfortable," but "livable".¹⁶¹

Although federal civil defence officials had been unofficially supporting a policy of evacuation from as early as 1954, it was never publicly stated until after a civil defence bilateral planning meeting between Canada and the United States in the early spring of 1956.¹⁶² Thirteen potential target cities were identified for Canada. Each city would have to create its own evacuation plan, although the Federal government was willing to provide municipalities with "a master plan applicable to evacuation problems" and a "team" of federal advisors.¹⁶³

Canada's master plan for evacuation was graduated and divided into four phases: pre-attack, alert, bombing, and post-bomb. The plan was based on the assumption that the Distant Early Warning radar line would provide a forewarning of thirty minutes. The pre-attack phase plan called for evacuation of non-essential personnel to pre-determined locations approximately fifty miles beyond city limits. "Vital" industries would double their shifts and begin moving equipment into "second-line" plants. The "alert signal" phase planned notification of those cities designated for attack.

¹⁶⁰Ibid.

¹⁶¹Harvey W. Adams, "Civil defence and your life," Saturday Night, 11 June 1955, p. 7.

¹⁶²"How will we leave our cities if an H-bomb war threatens," Financial Post, 27 October 1956, p. 16.

¹⁶³Ibid.

All traffic would be prevented access into the city and industry would begin full evacuation to their "branch plants." During the bombing phase, workers would be sheltered "in moderate damage areas," considered to be about twenty miles outside of city limits. Workers were expected to contribute to the post-bomb phase of civil defence rescue operations. The gradual evacuation plan did not emphasize saving lives but rather the continuation of industrial production, which of its own initiative had decentralized during peace-time.

Evacuation plans never did become a priority on municipal agendas. At the federal level, civil defence officials were prodding their provincial counterparts to "provide leadership" and bring pressure to city councilors. A year after the evacuation policy had been publicly announced, none of the thirteen designated potential target areas had addressed the issue.¹⁶⁴ Outlying centres had no knowledge of their roles and city dwellers had no idea of what was required of them. For historian James Eayrs, false expectations had been built into the evacuation plan that discredited its feasibility: it was absurd, Eayrs argued, to suppose that the inhabitants of metropolitan Toronto could be evacuated to some safe haven in the Bruce Peninsula with twenty minutes' warning.¹⁶⁵ Eayrs maintained that Federal "infatuation" with the evacuation program was a deliberate diversion for civil

¹⁶⁴"CD Plans alarm system against missile attacks," Financial Post, 14 September 1957, p. 19.

¹⁶⁵James Eayrs, "Defending the Realm: Memo to General Graham," Canadian Forum 38 (October 1958): 168.

defence officials who were "abdicating" their responsibility for providing "worthwhile protection" to Canadians. Evacuation policy assigned full responsibility for civilian protection to the municipalities, while absolving the federal government from any meaningful participating role.

Worthington's 1956 announcement of Canada's decision to adopt the evacuation policy was rationalized by citing the destructive potential of the hydrogen bomb. Facing "complete annihilation" of anything within a three-mile radius, evacuation was the only possibility: shelters would not save lives. Technological advancement in missile delivery systems eventually reduced warning time to under fifteen minutes for land-based missiles and to no warning from submarine launched missiles. The diminished warning time combined with a nuclear strategy based on surprise attack nullified Canada's evacuation policy.¹⁶⁶ The evacuation policy was superseded by a shelter building program. The change of policy brought an insoluble contradiction to the role of civil defence: to argue that evacuation was the only way to avoid annihilation in target cities, and then promote a shelter program for those cities, created an illogical construct in the public psyche. One of the main criticisms of the civil defence program was its inability to produce realistic and convincing plans for civilian protection against nuclear warfare.

¹⁶⁶Following the Cuban Missile Crisis, military nuclear strategy adopted a defence based on an escalated response to superpower tension. Escalation theory allowed for a brief revival of the evacuation option.

It was an unavoidable dilemma for weapon systems analyst Herman Kahn who wrote On Thermonuclear War while on leave from the RAND Corporation. Kahn had postulated that in the climate of the Cold War, neither world government nor disarmament nor arms control was possible. A nuclear country had to find the means to deter its adversary from starting a thermonuclear war or from exhibiting intolerable provocation. The work hinged on accepting the assumption that a nuclear war did not presume mutual annihilation. Kahn's entire approach to nuclear strategy was based on an understanding of nuclear war as an "unprecedented catastrophe," but not a limitless one. The book stimulated public discussion on civil defence, in part due to its writing style which was intended to jolt the reader into "thinking about the unthinkable."

Kahn observed that people had a visceral reaction to civil defence, automatically dismissing the whole subject and with it the possibility of nuclear war. People "do not want to face the reality of potential thermonuclear war...[they] prefer deterring it, abolishing it, wishing it away, thinking it away, ignoring it, and denying its existence as a problem."¹⁶⁷ People produced psychological blocks but especially frustrating for Kahn was the belief in the "naive" assumption that war "must be all-out and uncontrolled."¹⁶⁸ For Kahn, civil defence provided the best

¹⁶⁷Herman Kahn, "A Rational Basis for Decision Making on Civil Defense Policy," Behavioral Science and Civil Defense Conference, Washington D.C., October 1962, p. 23. This article was republished with minor revisions as "A Debate on the Question of Civil Defense," Commentary 33 (1962): 1-23.

¹⁶⁸Kahn, "A Rational Basis," pp. 36, 39.

possibility for surviving a controlled or "limited general war" as distinguished from the spasm war: "In a spasm war each side is trying to get rid of all its weapons as fast as it can in sort of an orgiastic spasm of destruction."¹⁶⁹ Civil defence was regarded as "insurance" to fall back on in case an avoidance of nuclear war failed. But regardless of how elaborate the preparations for civil defence were, there remained one major flaw: it could not demonstrate rigorously the plausibility of survival. Even after all the analysis of all the innumerable scenarios, survival remained a leap-of-faith - "faith in the ability of people to improvise, to meet emergencies reasonably intelligently...to rise to the occasion."¹⁷⁰ Civil defence was never able to convince people fully that preparedness measures could protect against the hydrogen bombs or provide a meaningful vision of society after nuclear war. This was apparent in the public's response to home shelters.

The Policy of Home Shelters

A viable fallout shelter system for the civilian population was never realized in Canada. The rationale for not building was justified on monetary grounds, even though it was the opinion of the Defence Department that without shelters there would be no survival in a nuclear war. Having quickly recognized the unacceptably high cost associated with a national shelter system, the federal civil defence committee muted the public shelter

¹⁶⁹Ibid., p. 41.

¹⁷⁰Ibid., pp. 30-1.

option, established for itself an informational role, and laid the responsibility for survival on the individual's initiative to construct home shelters.

During the early years of the 1950s, usage of the term, "fallout" shelter had yet to replace the term "air raid" shelter. Air-raid shelters were discouraged from being built because of the civil defence policy for evacuation and the association of sheltering with "non-productive idleness."¹⁷¹ While the inefficiency argument lost its preponderance as death by radioactive fallout became more generally accepted, the economic contention that building home shelters would be an exorbitant expense on the government was never lost on civil defence planners. Civil defence estimates for a home shelter program hovered around \$2 billion and that did not include the protection of the work force.¹⁷² A program to build home shelters would cost more than the economy could afford, and so the government recommended but did not mandate homeowners to build their own.

Without a co-ordinated effort by government to legislate fallout shelters for new residences, shelter construction remained very much a voluntary decision. Canadians could, if they chose to, build their own shelter and a home improvement loan was made available under the National Housing Act, provided the shelter was

¹⁷¹John S. Morgan, "Citizen Defence," Canadian Forum, 30 (March 1951): 270.

¹⁷²Clive Baxter, "CD Speed-up means big cash spree: 'Sweetener' could mean more shelters," Financial Post, 2 September 1961, p. 2.

built using a Federally approved anti-blast or fallout design.¹⁷³ Some Ontario municipalities were in favour of building fallout shelters for their residents on a local improvement basis but shelter construction by municipalities was not possible under the current legislation.¹⁷⁴ The Local Improvement Act applied only to the cost of certain projects undertaken on public property, and shelters were not a specified category. Income tax exemptions for the cost of construction was considered by the Federal Government but Cabinet considered the scheme a benefit for high income earners and decided that "the privilege of income tax deduction should not be the inducement to get people to do the desirable thing."¹⁷⁵ In the end it was agreed to make home improvement loans available under the National Housing Act. The role of civil defence organizations was to ensure:

that homeowners be presented in every reasonable way with the facts concerning their own safety in the event of air attack and the value to them of home shelters at modest costs, which would be eligible for financing by home improvement loans.¹⁷⁶

Prior to the shelter craze brought on by the Berlin Wall Crisis (1961), the only construction firm to sell home shelters

¹⁷³"Shelters and the public," Financial Post, 17 February 1962, p. 64.

¹⁷⁴"Put Shelter on Tax Bill? Law Says You Can't Do It," Financial Post, 18 November 1961, p. 18.

¹⁷⁵PCO, RG 2, Series A 5a, Vol 2647 "Cabinet Conclusions: Item No 23, Civil Defence; financial aid for home shelters," Vol 78, 17 May 1960 to 30 June 1960, p. 7.

¹⁷⁶Ibid.

aggressively was the Consolidated Building Corporation.¹⁷⁷ In 1959, Consolidated anticipated building seven-hundred homes in the sub-division of Regency Acres in Aurora, Ontario, and offered future homeowners the option of a shelter if ordered prior to the start of construction. The \$1,500 price tag would be added to the purchasing cost. Consolidated claimed that the shelter would protect against fallout and give "reasonable protection against blast." The shelter's design came from United States' civil defence pamphlets because no official blueprints were yet available in Canada, although by 1962 Canada had fifty approved anti-blast and fallout shelter designs.¹⁷⁸

Civil defence officials had no accurate method for determining the exact number of shelters constructed in Canada. Home owners wanted to keep their private shelters secret for fear of public ridicule, an increased property tax assessment, or fear of a possible intrusion by neighbours should a nuclear war begin.¹⁷⁹ Putting aside the tax avoidance rationale, to build or not to build a home fallout shelter was closely linked to one's perception of the credibility of a nuclear attack. The Berlin Wall Crisis was the first major international crisis, since the Korean War, to raise

¹⁷⁷Leonard Bertin, "A-blast shelter in new houses: can you survive?" Financial Post, 24 January 1959, p. 24.

¹⁷⁸"Shelters and the public," p. 64.

¹⁷⁹"Who's building fallout shelters where, for how much?" Maclean's Magazine, 2 December 1961, p. 73; "Shelters and the public," p. 64.

the threat of direct warfare between the United States and the Soviet Union.

Suddenly exposed to the possibility of annihilation, people began to exhibit anti-social behaviour as social cohesion was disrupted under the rubric of self-preservation. Home shelters did not inspire Canadians to rally together against the external enemy but rather, the public began to internalize the enemy. People spoke of barring neighbours from shelters. Reports began to circulate: building materials were being delivered by night; workmen were being smuggled in as T.V. repairmen;¹⁸⁰ decoy shelters were being built just for fooling neighbours;¹⁸¹ and wives were taught to use guns to shoot at possible intruders.¹⁸² The anti-social behaviour pointed to the fact that the identification of the enemy had become misplaced.

Social cohesion weakened in the anticipation of a nuclear crisis. Fear and duty of self-preservation occasionally spilled into blatant prejudice. A full page opinion editorial in Saturday Night told Canadians that if they were white and Christian they had a "duty to humanity to survive" and justified it accordingly:

Colored peoples have still to emerge from barbarism. (I do not mean this as an insult, I am just stating facts.) Admittedly, the Chinese once had a very fine civilization, but today they have become more barbaric than anyone. Of course, we share this particular quality of Whiteness with the Europeans and Americans, but I do

¹⁸⁰C. Knowlton Nash, "Where fright feeds on fright," Financial Post, 7 October 1961, p. 25.

¹⁸¹"Who's Building fallout shelters," p. 73.

¹⁸²Ibid.

not think any of them can claim as great a duty to survive as Canadians. Many are quite degenerate or neurotic. And, unlike some countries, we will be quite innocent of causing any holocaust.¹⁸³

Although few would admit to building shelters, fewer still were willing to discuss their reasons. A survey of fourteen of Canada's largest cities was undertaken by the Financial Post to gauge the Canadian reaction to the shelter craze. The general finding was that few were taking seriously their survival of a nuclear war. Collectively, the cities counted 420,000 homeowners but only thirty-six of them had acquired permits to build fallout shelters.¹⁸⁴ While few Canadians were willing to publicly admit to constructing a shelter, construction firms were confirming sales. National Survival Limited of Regina claimed to have sixty orders for home shelters ranging in price from \$365 to \$695. In Toronto, Family Fallout Shelter Limited had sold twenty shelters with another forty customers waiting for delivery. Eaton's department store was not selling shelters but did offer a line of shelter furnishings and the Simpson-Sears department store had a model shelter on display and claimed to have sold five at \$514 each.¹⁸⁵ The secrecy of home shelter construction was used by civil defence officials to defend the practice of extrapolating the number of private shelters as measured by the number of requests

¹⁸³Michael Sheldon, "Point of view: should you build a fallout shelter?" Saturday Night, 20 January 1962, p. 44.

¹⁸⁴"But the only underground thinking in Canada is about basement bars and subways," Financial Post, 7 October 1961, pp. 25-6.

¹⁸⁵Ibid.

for shelter protection plans. By 1962, over one million copies of the publication, "Your Basement Fallout Shelter," had been distributed on request to groups and individuals.¹⁸⁶ Civil defence officials estimated that more than 1,000 private shelters had been constructed in 1961.¹⁸⁷ Yet figures released by National Housing Act officials showed that to January 31, 1962, only sixty-two Canadians had applied for loans to build shelters in new homes with another ninety-four shelters constructed in existing houses under home improvement loans.¹⁸⁸ By 1963, civil defence officials were adamant that they knew of at least twenty-five hundred shelters in Canada. If built according to approved civil defence designs each shelter would be capable of housing five persons. With fewer than 20,000 Canadians theoretically protected, the policy of voluntary shelter construction was a dismal failure, even by the more generous estimates of civil defence officials. As early as 1963, the federal promotion of fallout shelter construction was being labelled a "wasted effort."¹⁸⁹ A year later, Maclean's Magazine was calling the home fallout shelter a "prematurely dug grave, a hole to be buried alive in."¹⁹⁰ Herman Khan would

¹⁸⁶"Shelters and the public," p. 64.

¹⁸⁷Ibid.

¹⁸⁸Clive Baxter, "\$2 Million Still in Post for Builders," Financial Post, 12 May 1962, p. 4.

¹⁸⁹Clive Baxter, "If the Big Bomb Drops, Can EMO Cope?" Financial Post, 19 October 1963, p. 51.

¹⁹⁰"Let's stop kidding ourselves about civil defense," Maclean's Magazine, 2 November 1964, p. 4.

attribute the lack of public interest in shelter protection to the idea of a self-fulfilling prophecy: namely, if you build shelters you will have to use them.¹⁹¹

Fallout shelters generated considerable discussion but never translated into widespread construction. Resistance to fallout shelters peaked during the Cuban Missile Crisis in 1962. As social psychologist Lester Grinspoon commented:

This [the Cuban Crisis] nuclear confrontation, which probably brought the world closest to the brink of a nuclear war, was not associated with increased shelter activity, but rather with the continuance of its de-emphasis and a shift towards disarmament in some circles.¹⁹²

One reporter was to explain the apathy and denial of a nuclear threat as "public boredom with the issue."¹⁹³ There could be no serious inquiry into a defence policy for Canada because of the commitment to support an American nuclear-weapons based alliance. "The reality could no longer be discussed and the unreality of more accustomed paths provided a refuge."¹⁹⁴ Issues such as home fallout shelters were discussed in formal terms without realistic consideration for the value of the action.

¹⁹¹Kahn, "A Rational Basis" p. 45.

¹⁹²Lester Grinspoon, "Fallout Shelters and the Unacceptability of Disquieting Facts," in The Threat of Impending Disaster: Contributions to the Psychology of Stress, ed. George H. Grosser (Cambridge: Massachusetts Institute of Technology Press, 1964), p. 118.

¹⁹³Kenneth McNaught, "Boredom With The Bomb," Saturday Night, August 1964, p. 15.

¹⁹⁴Ibid., p. 16.

In 1965, Federal Emergency Measures officials admitted that the home shelter programme had been unsuccessful.¹⁹⁵ The excuse given for the failure was monetary; it was the expense incurred in constructing a shelter that stopped people from building rather than a lack of conviction in such a project's utility. The federal solution was to reconsider and undertake a public shelter programme.

The Policy of Public Shelters

Initially the cost of maintaining public shelters was considered prohibitive. There was also the issue of provocation: a national program of public shelter building could be misconstrued as preparations for an offensive attack against the Soviet Union, especially if done in conjunction with the United States' public shelter identification programme.¹⁹⁶ The dismal failure of convincing people to build home fallout shelters meant that public fallout shelters became, for civil defence, the best form of protection against a hydrogen bomb. Revising the argument in favour of public shelters was done in order that they be seen as contributing to the prevention of nuclear war. Instead of provoking an attack, public fallout shelters strengthened deterrence since an enemy would hesitate to attack if threatened by retaliation. This reversal of argument was promoted by Robert Curry, Director of the

¹⁹⁵"National Fallout Shelter Survey," EMO National Digest, 5.2 (April 1965): 6.

¹⁹⁶Knowlton C. Nash, "Should we start a building binge in bomb shelter?" Financial Post, 18 July 1959, p. 19.

Privy Council's Emergency Measures Organization. Curry dismissed as "delusional" any consideration that precautionary measures led to war: "We want the world to know that we are ready [and] that we will not be taken by surprise."¹⁹⁷ Public shelter preparations were now regarded as defensive actions intended for the "thoughtful and intelligent enemy."¹⁹⁸ Such an enemy would hesitate to attack a country that had made emergency plans and preparations. Worthington considered the argument of 'public shelters as a provocation' to be based on a "fatalistic attitude" arising from "ignorance" and "nonsense;" he believed that "We are the flea on the elephant's ear so far as Russia is concerned."¹⁹⁹ In separating Canada's civil defence program from a North American context, Worthington was minimizing the provocation argument.

The preventative argument justified the creation of the National Shelter Plan (1961), which authorized the civil defence program to undertake a survey of all federal buildings to assess their capability to provide shelter from radiation.²⁰⁰ Under the supervision of the federal Emergency Measures Organization, the Department of Public Works was assigned the task of identifying potential public fallout shelters among existing federal buildings,

¹⁹⁷Terence Robertson, "Watch for Big 'War Citadels' Contracts Soon," Financial Post, 21 January 1961, p. 2.

¹⁹⁸Ibid.

¹⁹⁹F.F. Worthington, "After All the Argument War May Come," Saturday Night, 10 June 1961, p. 32.

²⁰⁰"Mass Raid Shelters Are on CD Program," Financial Post, 5 August 1961, p. 2.

while the Army was to build blast resistant shelters to ensure the continuation of government during and after a nuclear war.

Major-General Hugh Young, Deputy Minister of Public Works, announced that fallout protection would become standard for all new federal government offices and that shelter blueprints had been prepared for the Agriculture Administrative Building, the new Unemployment Insurance Building, Transport Building, Northern Affairs and National Resources Buildings and the Department of National Health and Welfare in the Ottawa suburban area known as Tunney's Pasture.²⁰¹ During the summer of 1961, some 5,000 federal buildings were surveyed for fallout protection.²⁰² However, a building that offered adequate fallout protection could not be considered a public shelter, since the survey did not consider ventilation, sanitation, cooking facilities, or whether or not it has sufficient floor space.²⁰³ Fallout shelters also required heating equipment and stockpiled food, water, and medical supplies. The financial costs were astronomical. A rough calculation estimated the cost of food at \$250 million for a two week supply of canned goods for eighteen million Canadians.²⁰⁴

Following the survey of federal public buildings during the summer of 1961, the public shelter component of the National

²⁰¹"Fallout Shelters in Ottawa Buildings," Monetary Times, December 1961, p. 16.

²⁰²"Shelters and the Public," p. 64.

²⁰³Ibid.

²⁰⁴"How They'll Treat Atomic Casualties," Financial Post, 2 September 1961, p. 10.

Shelter Plan went dormant while government shelter construction remained active. Historian Desmond Morton was to observe that:

All at once it was governments, not Communist sympathizers or the small community of pacifists, who were bent on making people's flesh creep at potential nuclear horrors - all in the name of justifying costly and inconvenient precautions.²⁰⁵

In 1965, survey teams were once again organized, this time to assess the fallout protection of provincial and municipal buildings, along with other suitable privately and publicly owned buildings, such as apartments, commercial offices, schools and churches. Charles Drury, Minister of Industry and Chairman of the Cabinet Committee on Emergency Plans in Lester Pearson's Liberal government, justified the renewal of the survey with the observation that most federal buildings did not correspond with population distribution. Drury was also hoping that a national public fallout shelter programme would help in obtaining public support for civil defence.²⁰⁶ As Worthington had already noted, "A shelter program in Canada would provide work for a great many people which is not a bad idea in itself."²⁰⁷ The survey was expected to take three years for completion, yet as late as 1978,

²⁰⁵Desmond Morton, A Military History of Canada (Edmonton: Hurtig Publishers, 1985) p. 245.

²⁰⁶Paul A. Faguy, "National Developments in the Emergency Measures Programme," EMO National Digest, 5.2. (April 1965): 19.

²⁰⁷Worthington, "After All the Arguments" p. 31.

summer students were still being hired by Public Works to survey commercial sites.²⁰⁸

All survey work was done through the Department of Public Works except in Saskatchewan where it was contracted to the Civil Engineering Department at the University of Saskatchewan. The intent of the expanded National Shelter Plan was to produce Provincial Master Shelter Plans and then Community Shelter Plans for the entire country. Upon its completion, the Emergency Shelter Preparedness Program had identified over twenty-one million spaces as "fallout proof" but none attained actual designation as a public fallout shelter.²⁰⁹ Only the shelters set aside for government officials were actually readied for occupation.

The Policy of Government Shelters

Through the "Continuity of Government Program" (1961), Regional Emergency Government Headquarters were built in each province. The construction of the provincial "war citadels" (as they came to be called) were designed to provide "operational capability" for a small core of federal, provincial, and army personnel who would direct emergency measures within a province in the event of an attack on Canada. Regarded as the largest defence construction contract to be offered for public tender, total

²⁰⁸"Gearing up for a countdown," Maclean's Magazine, 1 October 1979, p. 26.

²⁰⁹Charles White, "Do-it-yourself survival: Canada's civil defence is far behind that of many other countries," Canada and the World, 49 (1984): 20.

construction cost was estimated at \$5 million with another \$7 million for electronic communication equipment.²¹⁰ It was calculated that the citadels could protect against radioactive fallout but not a nuclear blast.²¹¹ Not even the federal government shelter at Carp, Ontario, a five-story concrete-encased underground structure, could withstand a high yield nuclear explosion.²¹²

These emergency government facilities could hypothetically protect politicians and army personnel from the short-term effects of a nuclear war. Civil defence officials rarely distinguished between short and long term survival, and neither did civil defence preparations venture into inquiries of public adaptation to the post-nuclear war environment. More important was creating the impression of a nuclear exchange as a brief skirmish and temporary abnormality, which was the impression that the Director of the Privy Council's Emergency Measures Organization, R.B. Curry, gave in rationalizing the initiative to build government shelters:

The first thing the public would clamor for in the event of an attack would be information as to whether the government was in being, what it intended to do and whether it was capable of supplying services such as aid for stricken areas.²¹³

²¹⁰Terence Robertson, "We Could Take Atomic Blow, Most of Us Would Survive," Financial Post, 21 January 1961, p. 34.

²¹¹"Shelters and the Public," p. 64.

²¹²Clive Baxter, "Despite apathy, civil defence thrives and expands," Financial Post, 18 September 1965, p. 26.

²¹³Robertson, "Watch for Big War Citadels," p. 2.

Buried under the 'we can rebuild' response to nuclear warfare was an implied priority of preserving government. This unspoken agreement conveniently avoided all discussion on the type of government most likely to emerge in the post nuclear world. Because of this underlying 'collusion,' it was easier for civil defence to restructure the role of the army away from assisting civilians and toward protecting government from civilian unrest:

Each control centre will be surrounded by a widely flung defence perimeter guarded by the Army. Inside, there will be food, medical supplies and all the necessities to sustain life for prolonged periods. The provincial citadels will be purely functional, designed to enable administrations to deal efficiently with war problems. There will be no accommodation for families. Men designated to go underground are forbidden to disclose this information to even their closest relatives.²¹⁴

The government recognized an implicitly Hobbesian view of a post-nuclear world. For Prime Minister Diefenbaker (for whom the federal shelter was christened the Diefenbunker), a drawn out nuclear war would reduce the functions of government to "allocating surviving resources between competing civilian and military demands."²¹⁵ The Diefenbunker was four stories deep and could hold over three hundred people for thirty days. The federal shelter was decommissioned in 1994.

²¹⁴Ibid.

²¹⁵John G. Diefenbaker, One Canada, vol. 2: The Years of Achievement, 1956-1962 (Scarborough: Macmillan-Nal Publishing Ltd., 1976), p. 246.

Conclusion to federal civil defence policies.

During the 1950s, civil defence plans were premised on evacuation following warning of an enemy attack. The success of the October 4, 1957, launching of Sputnik I into orbit by the Soviet Union proclaimed the arrival of the intercontinental missile and fundamentally changed previous suppositions about civil defence arrangements. Planners recognized the need for change but were unable to produce viable alternatives. In theory, a sheltered population was more likely to survive a nuclear war but the reality of survival preparedness was rarely explored in public. The unavoidable fact was that a national fallout shelter program, either in private homes or in public buildings was too costly an undertaking for too little assurance of survival. Clive Baxter best summarized the most salient impasse: "the cost of a meaningful shelter program makes the underground insurance just too expensive for the calculated risk."²¹⁶

The government's half-hearted response for a national survival plan only provoked alarm and division within the population. In order to convince people to build shelters, the horrors of a nuclear war had to be emphasized. Once again, civil defence was caught in an illogical bind, where "the absurdity and amateurism of the precautions played counterpoint to the horror of the threat."²¹⁷ As the seriousness of radioactive contamination became general knowledge, the utility of civil defence was

²¹⁶Baxter, "\$2 Million Still in Pot for Builders," p. 1.

²¹⁷Morton, A Military History, p. 245.

challenged for fostering the dangerous illusion that protection was possible in a nuclear war. Critics argued that civil defence planning lulled people into false feelings of security. The disquieting element for civil defence officials was that the illusion of protection was no longer capable of garnering public support for a policy of nuclear deterrence. Indeed, the exact opposite was occurring and people became less convinced that deterrence could prevent a nuclear war.

The inability of civil defence promoters to gain widespread public support and participation in making shelter preparations for the possibility of a nuclear war would eventually lead to the withdrawal of civil defence preparedness measures from the public sphere. Refashioned as a provider of emergency assistance for natural disasters, the civil defence portion of the revamped Emergency Measures Organization would grow increasingly paternalistic toward Canadian's well being with the federal government undertaking the preparations for survival on behalf of citizens. First and foremost in the equation was its own survival. Civil defence had evolved from protection of the civilian population to the protection and survival of the chosen few.

CHAPTER FIVE

Conclusion

The aeroplane radically altered the ways of organized warfare. During the interim years, between the First and Second World Wars, armed forces came to realize that air raids could weaken an enemy by terrorizing its citizens, creating panic and decreasing war productivity. With the threat of indiscriminate death ever present, the morale of the civilian population became a significant issue for government. Military theorists contended that sustained air raids on city centres would break the will of the people to resist enemy encroachment, and with persistent bombing wreaking havoc on society, the civilian population would succumb and demand that their government capitulate. The military's antidote for aerial attacks was a civil defence programme. It was believed that morale could be kept strong if people participated in their own protection by organizing for the safety of the community.

The Canadian Armed Forces saw civil defence as passive, and therefore a political rather than a military responsibility. From the military's perspective, civil defence was intended to bolster public support for the government's decision to deploy and sustain the Armed Forces. It was thus the responsibility of the government to boost public morale when faced with the threat of an armed attack. To this end, the Department of Pensions and National Health (later known as the Department of National Health and Welfare), was made responsible for implementing Canada's civil defence programme.

During the Second World War, civil defence was initially administered by committee. Without a programme director, civil

defence had a rather haphazard start, and relations with municipalities became strained from unclear funding guidelines and restricted access to supplies. Part of the difficulty was caused by a conflict of interests. At the federal level, civil defence was less about protecting the population than about obtaining and sustaining public morale, and thus support for a political decision to wage war. The federal government saw its role as providing information and used the provincial governments as clearing houses for explanatory literature describing the precautionary measures for individuals and families.

At the municipal level, civil defence was about building the infrastructure that would warn the population of an aerial attack, and give assistance in the aftermath of such an attack. However, without the financial backing of the federal government, municipalities were limited in the type of protection they could provide, and both the pre-attack infrastructure of air raid sirens and the post-attack emergency rescue services were poorly developed. With little support from the federal government, municipalities were unable to retain civil defence workers and sustain the public's involvement in the programme.

Despite these organizational difficulties, early civil defence programs were a political success and public morale in Canada was never undermined by air raids. On the two occasions that Canadians perceived themselves threatened by an aerial bombing, civil defence enrollment increased. When civilian safety was sufficiently threatened, civil defence organizations offered the public an

outlet for relieving their fear, while concomitantly expressing support for the war effort.

The development of the atomic bomb, introduced a new weapon of mass destruction. Canada, despite having been a wartime participant in atomic weapons development and thus knowledgeable enough to issue its own information about atomic research, acquiesced to the United States on matters of public information about atomic energy. The atomic bomb was presented to Canadians as a more powerful and efficient conventional bomb, its energy yields compared to those of TNT. At first, the atomic bomb's ability to produce and emit radioactivity was staunchly denied in the North American press, but the number of Japanese victims dying from radiation exposure was too overwhelming for the United States to maintain this stance without risking a loss of credibility and the United States felt obliged to acknowledge that the atomic bomb did produce radiation. However, admission to the presence of radioactivity was qualified. The United States admitted to the short term emission of thermal radiation but denied the existence of residual radiation from radioactive fallout. News reports consistently minimized the significance of radiation as a new weapon of warfare. Censorship of the information concerning the atomic bombings at Hiroshima and Nagasaki "distorted" the postwar debate about the regulation of atomic energy in order to favour its continued development as a weapon.

The atomic bomb, as noted by John Holmes, "had swiftly radicalized the Canadian view of world order."²¹⁸ The public's initial response was to support the campaign for international control of atomic energy, but the Canadian government accepted the right of the United States to retain its monopoly on atomic weaponry. Hope for a co-operative commonwealth was squashed with the failure of the United Nations International Atomic Energy Commission to formulate an international agreement. Press releases described recalcitrant Soviet behaviour as the reason why international cooperation had failed. This only increased fears of renewed hostility. When Igor Gouzenko revealed that Canadians were acting as informants for the Soviet Union, the Canadian government took advantage of the opportunity to convince the public that communism was the main threat to international security. This allowed for even closer collaboration with the United States.

By attributing war-like behaviour to the Soviet Union, Canadians found themselves in the role of a buffer state between two hostile adversaries. They were faced with the uncomfortable realization that any new war would make Canada a battlefield in the conflict. This fundamentally changed their perception of the world order. Increasingly, Canadians were encouraged to rely on the United States' atomic arsenal as the best guarantor of international peace. The Canadian military regarded opposition to nuclear weapons development as "defeatist" and they made deliberate

²¹⁸Holmes, Shaping the Peace, p. 205.

efforts to associate anti-nuclear sentiment with communist sympathies.

Realigning the world into two hostile camps facilitated a defence policy based on nuclear deterrence. For nuclear deterrence to be successful, one side must convince the other that it has both sufficient nuclear capability and the will to use it. To make this threat credible required public support, and obtaining this support required assurances that a nuclear war was survivable. It was through the civil defence programme in Canada in the 1940s and 1950s that such assurances were provided. To this end, primary consideration was given to survival planning, emergency response training, and a public education program that would teach people to respect and not fear the atomic bomb.

Civil defence countered public opposition to continued nuclear weapons development by diminishing, in the public consciousness, the perceived hazards of a nuclear war. In civil defence manuals the argument of efficiency was used to justify the military's prediction of the type of atomic detonation most likely to occur in a nuclear war. Underwater detonations and ground bursts were said to be least efficient because their blast effects were less than with above ground explosions. Their rationale complemented the nuclear weapons atmospheric testing programme. Similarly, the civil defence emphasis on protection against the air burst also supported the military tenet that radiation posed little danger to the general population. Early civil defence preparedness measures paid scant attention to the radiation produced by atmospheric tests

because government endorsed civil defence tracts assured people that it would dissipate before reaching the ground, and that any ground level radioactive contamination which might occur was of a temporary nature. Eventually, developments in the delivery systems for nuclear weapons would nullify the efficiency argument and threaten the credibility of the civil defence programme. Survival measures became increasingly suspect with the development of the intercontinental ballistic missile. Advances in weapon delivery implied that nuclear detonations would most likely be ground bursts and early civil defence tracts had warned the population of serious radioactive harm from ground bursts.

The credibility of the civil defence program was also seriously undermined by the hydrogen bomb detonation, code named BRAVO because the issue of radioactive fallout called into question the validity of municipal survival plans. Emergency survival plans envisioned relief workers coming from beyond the periphery of the atomic bombs' blast and fire radius. BRAVO declassified the occurrence of widespread radioactive fallout. For civil defence planners, this knowledge nullified the idea of atomic war as a localized disaster as the periphery was no longer restricted to a fixed circumference determined by the yield of the detonation. Municipal survival plans, such as the one developed by the Fort William civil defence organization, dispersed fire trucks and ambulances to just outside city limits with the understanding that the potential target was contained in the industrial core. Without clearly defined boundaries, it was nearly impossible to be sure of

municipal emergency services because workers' survival could not be assured. The idea of a localized disaster also corresponded with the idea of a limited nuclear war, a type of war undermined by the BRAVO test and the realization of widespread, life-threatening radioactive fallout.

As the dangers of radioactive fallout became better known the federal government stopped encouraging the development of municipal survival plans. Increasingly, the civil defence programme emphasized the individual's responsibility to provide for his or her own survival, but participation in protective measures was never widespread. The main difficulty for civil defence officials was overcoming the issue of credibility. The public was unwilling to write off civil defence because a nuclear attack was theoretically possible, but they were not entirely convinced that an attack was probable. The watershed crisis for civil defence was the 1958 Berlin Crisis, when Khrushchev announced that the Soviet Union was ready to turn control of Berlin over to East Germany and that the United States would have to re-negotiate road access rights to the city. The belief that superpower confrontation was now more probable heightened public interest in civil defence measures. However, the government had already discarded municipal survival plans as being too risky to implement under conditions of radioactive fallout. Whereas its civil defence programme had once emphasized mutual aid and reciprocity, this now had been replaced by a stress on self-protection.

An unintended consequence of this new focus was a greater distrust amongst the general population. In the past, Communists had been seen as living outside the country, but always trying to become the "enemy within" by infiltrating and controlling groups and organizations. Now one's neighbour could be the enemy by threatening to compromise the safety of the private shelter. Inadvertently, civil defence had accentuated social dissention. In response to the detrimental effect that private shelter building was having on the general population, the federal government stopped trying to protect civilians against nuclear war and instead concentrated on planning for natural disasters. In the future, civil defence measures would only apply to provincial and federal levels of government and the military. By the time of the Berlin Wall Crisis (1961), people had little confidence in civil defence measures, and public pressure to end nuclear weapons testing had increased sharply.

The Canadian government explained the public's limited interest in personal shelters as a monetary issue. Private shelter costs, they said, were too high for families with limited budgets. In place of private shelters, therefore, the federal government announced a public shelter identification programme to sustain the claim that civilians could be protected from radioactive fallout. The government identified which public buildings had sufficient space to qualify for shelter status but development of public shelter spaces never occurred. The only shelters built to protect against the short term effects of radioactivity were those

constructed for the representatives of government. As civil defence measures were subjected to increased mockery from the press and general population, the civil defence programme retreated from the public realm, leaving in its place emergency measures for natural disasters. The federal government kept civil defence alive only as a sign of continuing collaboration in defence alliances based on nuclear weapons.

A civil defence programme was necessary because governments had to assure the public that rebuilding society was possible after a nuclear attack. The programme, in turn, helped to legitimize the doctrine of nuclear deterrence in the public mind. Civil defence measures were a sham, but they were indispensable for garnering public support for war and for a defence policy based on the development and testing of nuclear weapons.

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