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July 1986

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REPORT NO. 96  
HISTORICAL SECTION (G.S.)  
ARMY HEADQUARTERS

**DECLASSIFIED**  
AUTHORITY: DHD 3-12  
BY: CME FOR DHIST NDHQ  
DATE: DEC 3 1986

29 OCTOBER 1962

The Canadian Army's Role in  
Survival Operations

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1. After chronicling the slow growth of Civil Defence activities in Canada, this Report describes the Canadian Army's assumption during 1959 of certain heavy responsibilities for Survival Operations. The available source material included files of the Army Division of the Central Registry, Department of National Defence and miscellaneous documents now held by this Historical Section, including the personal diary kept by Major-General F.F. Worthington while serving as Federal Civil Defence Co-ordinator.

HESITANT STEPS

Civil Defence, 1938-1945

2. Canadian communities have long accepted responsibility for maintaining law and order, fighting fires, providing hospitals, maintaining streets and public utilities, and looking after those inhabitants who were temporarily rendered homeless. Only the devastation wrought by such natural phenomena as floods and forest fires was likely to prove too much for local resources and make it necessary for the Armed Forces to provide assistance in civil emergencies. This conception held true until the late 1930s, when the Civil War in Spain first demonstrated what havoc might be caused by enemy air attacks.

3. On 8 June 1938 the Canadian Government established an Interdepartmental Committee on Air Raid Precautions as a sub-committee of the Defence Committee of the Cabinet. The Government accepted its subsequent recommendation that the Minister of Pensions and National Health should be responsible for A.R.P. The Chiefs of Staff Committee listed areas of "definite risk" and "slight risk" from enemy air attack. On 13 June 1940 the Minister of Pensions and National Health, now Hon. Ian Mackenzie, was furnished with a further list of 12 Ontario industrial cities which were worried lest acts of sabotage might create major damage requiring the services of the same type of A.R.P. organization as was then being organized in the earlier designated danger areas. Order in Council P.C. 10196 of 31 December 1941 established the post of Director of Civil Air Precautions. The first incumbent, Hon. R.J. Manion,

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was soon succeeded by Brigadier-General Alex Ross, a former Dominion President of the Canadian Legion. General Ross was already heading Canadian Legion War Services, in addition to performing his duties as a District Judge in Saskatchewan. On 2 November 1943 General Ross was redesignated Director of Civil Defence. By this time there were nearly 247,000 voluntary A.R.P. workers at the municipal level. These workers included executive and administrative officers, auxiliary police and firemen, medical, first aid and nursing personnel, wardens, fire watchers, rescue and demolition squads, anti-gas personnel and welfare workers. \$5,450,000.00 was appropriated for civil defence in the Canadian budget for 1943-1944.

4. The legal interpretation given to the British North America Act has tended to place greater emphasis on the provincial power to legislate on matters involving "Property and Civil Rights" than on the authority of the Federal Parliament to make laws for "Peace, Order, and good Government". Therefore each provincial organization was made autonomous, receiving only financial aid, equipment and advice from Ottawa. Provincial Premiers were empowered to assume full executive authority on behalf of Hon. Ian Mackenzie and General Ross. Orders affecting the Armed Forces would, however, be subject to concurrence by the senior officer in areas as designated by the Ministers of National Defence. Each of the Services provided special liaison officers from headquarters in Ottawa to the Director of Civil Defence. Every community organization was also a separate entity. These varied greatly, but generally were more fully developed in the Atlantic and Pacific Commands.

5. On 5 October 1944 the Cabinet War Committee agreed to the termination of Civil Defence activities, since the Chiefs of Staff Committee considered that there no longer was any enemy threat to Canada. In view of the subsequent Japanese balloon menace in Pacific Command and the serious overcrowding in the Halifax area, limited activities were continued until the autumn of 1945. Civil Defence equipment was then turned over to the War Assets Corporation for disposal. The office of the Director of Civil Defence closed in November. Before retiring General Ross recommended:

- (a) That Civil Defence is an essential part of any plan of National Defence, but as the basic elements which comprise a Civil Defence organization are civilian in character, it is best controlled by a civil agency; however, the closest co-operation must be maintained with the Services.
- (b) That a national Civil Defence scheme is difficult to formulate in Canada due to population density, time and space and the autonomous status of provinces with the resultant division of responsibility for basic services. Therefore, that it can best be developed by local authority

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directed and co-ordinated by Federal and Provincial governments, with the municipality as the basic unit for Civil Defence planning.

- (c) That the majority of Civil Defence personnel must comprise volunteer workers who carry on their regular duties in addition, and keep the industry, commerce and ordinary life of the country operating.
- (d) That to secure a degree of preparedness for emergency, a nucleus of the civil defence organization must always be in existence.<sup>1</sup>

#### Civil Defence and the Department of National Defence

6. At its meeting on 30 November 1945 the Chiefs of Staff Committee merely recommended to the Cabinet Defence Committee that responsibility for Civil Defence should rest with some appropriate civil department to be determined by the Government.<sup>2</sup> As was only to be expected, the question of Civil Defence was being given more serious consideration in the United Kingdom, where policy was to advise the general public of the true dangers to be expected from the new weapons of destruction, but to stress at the same time how these dangers could be minimized.<sup>3</sup> In the United States, preliminary studies were soon undertaken by the War Department, but action was delayed until the reorganization of the Armed Forces was effected and Mr. James Forrestal appointed Secretary of Defense.<sup>4</sup>

7. Only on 9 July 1947, when presenting his Defence Estimates to the House of Commons, did the Minister of National Defence include among long-term objects:

Organization of government departments and civilian agencies capable of putting into immediate effect a plan for civil defence.<sup>5</sup>

This statement by Hon. Brooke Claxton seems to have encouraged the Brigadier, General Staff (Plans) and the Director of Military Operations & Plans at Army Headquarters to continue with preliminary planning.<sup>6</sup> Subsequently they were directed by the Joint Planning Committee to make a survey of the problem. The fundamental importance of Civil Defence was discussed when the Permanent Joint Board on Defence met in Toronto on 20-21 November. It had been placed on the agenda because of an American suggestion that there ought to be joint arrangements to cope with such civilian emergencies as spring floods.<sup>7</sup>

8. On 20 January 1948 the Chiefs of Staff Committee agreed that the Chairman, Defence Research Board should take over the task of preparing a memorandum on Civil Defence.<sup>8</sup>

Dr. Solandt's memorandum of 14 April seems, however, to have been largely a condensation of an earlier D.M.O. & P. draft.<sup>9</sup> After explaining that the problems posed by the existence of nuclear weapons made it essential to create a centralized planning agency, this memorandum continued:

Civil and Military Defence must be closely integrated and in the early stages of a war it is likely that the Armed Forces, especially the Army, will have to devote a considerable part of its resources to assisting the Civil Defence Services. It therefore seems wise to establish this nucleus in the Department of National Defence rather than in any civil department. Location of the Civil Defence organization within the Department of National Defence would facilitate the integration of Civil Defence plans with other Defence plans by discussion both in the Chiefs of Staff Committee and in the Cabinet Defence Committee. There would thus be no need to alter the existing and proposed machinery for the coordination of defence planning in order to include Civil Defence.

The Civil Defence organization should be started by appointing a Civil Defence Advisor in the Department of National Defence. The man selected for this post should be one who would be capable of taking full charge of Civil Defence in time of war. He must be experienced in administration and in public relations and have served in one of the Armed Services, preferably the Army.<sup>10</sup>

On the following day these proposals were approved by the Cabinet Defence Committee.<sup>11</sup> The Permanent Joint Board on Defence was advised of what was being mooted, during the course of its meeting at Trenton, Ontario, on 3-4 June.<sup>12</sup> Not until 19 October, however, did Mr Claxton announce that Major-General Frederick Frank Worthington, C.B., M.C., M.M., would be appointed "Special Advisor to the Minister of National Defence to act as Civil Defence Co-ordinator".

9. On 4 November General Worthington reported for duty. He was not, however, given any specific terms of reference. Almost immediately he left to attend a conference in Florida of the International Association of Firemen. General Worthington stopped off in Washington on his way back to confer with officials of the Office of Civil Defense in the Pentagon. During December General Worthington paid exploratory visits to the capitals of several Canadian provinces. In early January 1949 he visited the United Kingdom and Western Europe on a fact-finding mission. During the months following it became painfully apparent to him that Canada lagged badly behind in fire-fighting methods: in most municipalities both equipment and preventative measures were inadequate. Although Provincial Fire Marshals were agreed that fire hoses and couplings should be standardized, General Worthington soon realized that getting action was going to be difficult if not impossible.<sup>13</sup>

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10. On 1 March 1949 the Minister of National Defence told the Defence Council that a Civil Defence organization could not be kept in a state of preparedness for long when there was no "real function" to perform. Complete organization should be undertaken only as close to an emergency as possible. Present activities could be divided into four phases: planning, organization, training, and operations. The overall plan would be included in the Government War Book, but only preliminary plans would be divulged to the general public. After some discussion it was agreed that:

- (a) the Civil Defence Co-ordinator should continue his work of planning in accordance with the views outlined by the Chairman;
- (b) the recommendations of the Chiefs of Staff Committee in respect of strategic timing would be deferred until after the conclusion of the forthcoming conference on civil defence to be held in the UK; and
- (c) the CDRB [Chairman, Defence Research Board] would take up direct with the Civil Defence Co-ordinator the question of standardization of fire fighting equipment, as well as that relating to the location and design of new buildings [by and for Canadian industries].<sup>14</sup>

It was subsequently agreed that the Defence Research Board member of the Canadian Joint Staffs in London and Washington should provide the liaison link on Civil Defence matters.<sup>15</sup>

11. During the summer of 1949 a Civil Defence Co-ordinating Committee was formed to study all problems and to recommend allocation of responsibility to specific government departments. Permanent members were appointed from the Departments of Finance, National Health and Welfare, Public Works, Resources and Development, Trade and Commerce, Transport, Labour, and Agriculture. The Secretary of the Chiefs of Staff Committee and representatives from the Royal Canadian Mounted Police, Defence Research Board and Privy Council also were permanent members. Representatives could be called from other Departments and such agencies as the National Research Council and Atomic Energy Control Board when matters of concern to them were being discussed.<sup>16</sup> Originally a sub-committee of the Government's War Book Committee, it became a separate Civil Defence planning body late in October. General Worthington's personal record of the 24 October meeting noted, however, that "it was very difficult to keep to brass tacks and it is quite evident the members are still having difficulty determining what Civil Defence is. However it is felt that we should do something to meet an emergency now and not wait too long".<sup>17</sup>

12. On 9 March 1950 the Minister of National Defence told the Cabinet Defence Committee that this interdepartmental Civil Defence Co-ordinating Committee had made the following recommendations;

- (a) As a general principle Civil Defence should be conducted in collaboration with Federal, Provincial and municipal authorities rather than through military commands. Authority was requested to proceed immediately with planning and collaboration with the civil authorities involved.
- (b) The following should be agreed as the responsibilities and functions of the various levels of civil government:
  - (i) Federal Government - Assessment of forms and scales of attack, organization of Federal services, initiation and guiding of planning, coordination.
  - (ii) Provincial Governments - Organization of provincial services, preparation of regional plans, coordination of municipal activities.
  - (iii) Municipal Authorities - Coordination of all services and civil defence measures in municipal areas, local planning and organization of municipal services.
- (c) If recommendation (a) were approved then provincial premiers should be asked to receive General Worthington in order that the organization and planning of civil defence might be discussed later.<sup>18</sup>

The Prime Minister, Rt. Hon. Louis S. St. Laurent, said it was important to create the impression that Canada was preparing to avoid war - not go to war. There could be no objection to maintaining contacts at the provincial level, provided that nothing went beyond the planning stage and nothing was done to cause unnecessary public alarm. Because of Canada's large size and sparse population, Civil Defence measures need not necessarily be identical to those followed in other countries. The Canadian Government was not contemplating major expenditure at this time and did not want to make any firm commitments. General Worthington was not impressed by the seemingly "lackadaisical" attitude adopted by several of those present.<sup>19</sup> He asked to have his "terms of reference" approved before going further. After some discussion the Cabinet Defence Committee agreed:

- (a) That civil defence planning in collaboration with provinces, municipalities and other outside agencies be proceeded with. It being understood that no expenditures were to be authorized or no firm commitments to be made without prior reference to the Committee.



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- (b) That the Minister of National Defence arrange meetings between the provincial premiers and the Civil Defence Co-ordinator and,
- (c) That the Minister of National Defence in consultation with the Prime Minister prepare Terms of Reference for the Civil Defence Co-ordinator.<sup>20</sup>

13. It was subsequently suggested, because the Civil Defence organization was still very much in the planning stage, that provincial and municipal governments place immediate emphasis on plans for relief from the effects of peacetime disaster: the experience gained would constitute a realistic frame of reference on which to base wartime planning. General Worthington's small staff already had had informal discussions with the Canadian Red Cross Society, Order of St. John of Jerusalem, Canadian Legion, Boy Scouts Association, Canadian Medical Association, Defence Medical Association of Canada, Canadian Hospital Council, Canadian Nurses' Association, Canadian Dental Association, Radiologists' Association of Canada, Engineering Institute of Canada, Canadian Construction Association, Bell Telephone Company, Canadian Automotive Transportation Association, American Radio Relay League (Canadian Branch), Canadian Manufacturers' Association, Canadian Industrial Preparedness Association, Dominion Fire Prevention Association, Dominion Association of Fire Chiefs, Canadian Association of Fire Marshals, and the Dominion Board of Insurance Underwriters. During April, General Worthington visited several provincial capitals to discuss planning and organization with provincial premiers. He also visited the appropriate General Officers Commanding and Area Commanders.<sup>21</sup> The Army Plan for support of Civil Defence in an emergency was included in A.H.Q.-E.D.P. 50/1 dated 16 February 1950.

14. During the same month Major F.C. Pace became chief instructor of a new Atomic, Bacteriological and Chemical Warfare wing at the R.C.A.M.C. School of Instruction, Camp Borden. He was one of a group of officers earlier given indoctrination courses by the Defence Research Board at Ottawa, the Atomic Energy Control Board at Chalk River and the United States Air Force's Radiological Training Establishment at Keesler Air Force Base, Biloxi, Mississippi.<sup>22</sup>

15. After General Worthington reported that provincial Civil Defence authorities were desirous of having local military officers assist them in at least an advisory capacity, the Joint Planning Committee and Vice Chiefs of Staff Committee were directed to make a study.<sup>23</sup> In consequence, the Chief of the General Staff directed on 28 July that the Army might assist the "civil authorities where possible, without prejudice to its primary role, and function as a final echelon providing mobile reserve in the event civil defences are overcome".<sup>24</sup>

Yet the Army was "vitally interested", his memorandum added, "that civil defence is firmly established at the earliest possible moment to ensure Army support is kept to the barest minimum". Advice might be tendered to provincial and municipal authorities, whenever appointed, but no commitments were to be made without approval from Army Headquarters in Ottawa.

16. A Chiefs of Staff Committee paper on Civil Defence, dated 15 August 1950, assigned overall responsibility for the employment of personnel of the Armed Forces to the Canadian Army, with the Royal Canadian Navy and the Royal Canadian Air Force rendering such assistance as they might be able to afford.<sup>25</sup> Canadian Army Policy Statement No. 65 of 27 September 1950, set forth the following tasks for units in respect of Civil Defence:

- (a) To organize their own immediate protection within their various installations and establishments.
- (b) To provide mobile reserves in a secondary role to support and augment local civil defence authorities in the event that such action becomes necessary.
- (c) To assist civil authorities with the preparation of their plans.<sup>26</sup>

The tasks of the mobile reserve might include one or more of the following:

- (a) Reconnaissance of damaged areas.
- (b) Helping to clear debris.
- (c) Elementary rescue.
- (d) Provision of skilled personnel, limited transport, and limited mechanical equipment, for assisting in the restoration of communications and public services.
- (e) Treatment and evacuation of casualties in conjunction with the civil medical services, assisting in the evacuation of the homeless, and assistance in the distribution of food and water.

Units having a tactical role in the direct defence of Canada would not, however, be so employed. Responsibility for employment of other Army units would be vested in the General Officer Commanding each individual Command. He would request assistance from local Naval and Air Force Commanders, if necessary or desirable, but would exercise command over the total forces employed. The paragraphs describing the Army's role were quite precise:

12. The primary role of the military forces will be to assist the local authorities to restore conditions within the locality to the extent that the civil authorities can thereafter handle the situation. All such activities will be carried out under the authority of, and in collaboration with, the civil defence agency primarily responsible.
13. All military personnel will be withdrawn from a damaged area as soon as they have completed their immediate tasks so that they will be able to return to their training or operational activities. It must be emphasized that the military force has a primary military task and must be kept in a high state of readiness, and so must not become involved in long term civil defence activities.

17. Shortly thereafter, a committee of the Treasury Board was sufficiently impressed with Civil Defence aspects of the Government's building programme in Ottawa to report that "it would appear that the highly concentrated target presented by the Government of Canada, including the Defence and RCMP HQ, might well lead the enemy to regard central Ottawa as worthy of attack".<sup>27</sup> Risks now seemed great enough to "warrant action to disperse the high concentration of key government HQ in central Ottawa even though such action would involve substantial expense and some inconvenience at a time when both are undesirable". The Committee recommended that there should be no further construction of government administrative buildings within a radius of two miles from the corner of Sparks and Metcalfe Streets, that serious consideration be given to constructing new headquarters for both the Armed Forces and the R.C.M.P. on the outskirts of Ottawa, and that planning the dispersal of key units at the first warning of attack should be made the responsibility of some single authority rather than remain with an interdepartmental committee.

18. The first of a series of Civil Defence Staff Courses was held in the Hull Armouries, 29 January-10 February 1951, for civilian representatives from Civil Defence organizations in various parts of Canada. Lt.-Col. E.H. Webb, D.S.O., R.C.E. of Army Headquarters also attended as a student.<sup>28</sup> Lectures were given by instructors who had attended Civil Defence Schools in the United Kingdom. Doctrine was based on lessons learned from the Second World War. Following a nuclear detonation, properly equipped squads of firemen and rescue workers would sally forth from their assembly stations within the damaged city to cope with debris and casualties. Nearby municipalities would despatch similar squads to assist.

Civil Defence under National Health and Welfare

19. A Dominion-Provincial Conference, held in Ottawa during August 1950, led to the formation of a Federal-Provincial Advisory Committee on Civil Defence. Its chairman was the federal minister designated as being responsible for Civil Defence. Following the conclusion of this Committee's second meeting on 23 February 1951, responsibility for Civil Defence was transferred from the Minister of National Defence by Order in Council P.C. 985 to the Minister of National Health and Welfare. General Worthington now reported to Hon. Paul Martin. The Canadian Government agreed to provide an early warning system, training equipment and courses, and to stockpile medical supplies. The Civil Defence organization was to be integrated within the existing framework at each level of civil government. Channels of communication were as follows:

- (a) On matters of policy, the Minister of National Health and Welfare will deal with the provincial members responsible for civil defence.
- (b) In the implementation of policy, the Federal Civil Defence Co-ordinator will deal with the Provincial Civil Defence Co-ordinator or Director.
- (c) When policy has been established firmly, matters of a technical, specialist or routine nature will be dealt with at the working level, e.g., federal and provincial health authorities will communicate directly with each other, keeping their corresponding civil defence authorities informed.<sup>29</sup>

For organization and planning purposes, Canada was divided into three specific types of areas:

- (a) Target Area - Those centres liable to attack by reason of population density and industrial potential must be regarded as target areas and should have an organization capable of going into action immediately to minimize the effects of any possible attack.
- (b) Mutual Aid Area - The mutual aid area around the target area should be of sufficient size to provide aid to the stricken city and immediate refuge to distressed people.
- (c) Mobile Support and Reception Area - In a severe attack it is unlikely that the mutual aid area could provide the necessary accommodation for refugees, except for a few areas, and, in

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consequence, they must be sent into areas not included in (a) and (b) above. These are known as mobile support and reception areas. They would include most of the smaller cities and rural areas and their role in the event of an attack would be of great importance.

20. President Harry S. Truman of the United States of America, similarly being anxious to ensure civilian control, had taken responsibility for Civil Defence away from Pentagon officials and created two civilian agencies - Federal Civil Defense Administration and the Office of Defense Mobilization. Prime responsibility for action was, however, left to the individual states and municipalities. Lack of over-riding federal authority in both countries was to render difficult the Canadian-American co-operation on Civil Defence information, research, planning, organization and training that had been the subject of agreement at a joint meeting held in Ottawa on 21 February 1951, and confirmed by an exchange of notes between the two Governments on 26 March.

21. Canadian Army Policy Statement No. 74, dated 10 March 1951, amended the tasks of the Armed Forces to read:

- (a) To organize their own immediate protection within their various installations and establishments. Liaison will be effected with local Civil Defence authorities to ensure that plans for the protection of Service installations are integrated with local Civil Defence plans.
- (b) To provide mobile reserves in a secondary role to support and augment local civil defence authorities in the event that such action becomes necessary.
- (c) To assist civil authorities with the preparation of their plans by the provision of liaison officers to advise as to how the Services can assist.<sup>30</sup>

"Helping to clear debris" was, however, no longer a possible task for the mobile reserves. Paragraphs respecting "role" remained unchanged. In the event that Civil Defence authorities could no longer cope unaided with a situation, they could seek assistance as follows:

Municipal authority  
to  
Provincial authority  
to  
Army Command or Area Headquarters  
nearest to the Provincial authority.

This last had been added because General Worthington's energetic activities had resulted in provincial and municipal co-ordinators being appointed in Western Canada.

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22. On 29 March 1951 the Defence Council approved the following division of responsibilities between the R.C.A.F. and the Civil Defence organization:

- (a) Observer Corps - The RCAF should be responsible for organizing and equipping this network;
- (b) Aid Raid Warning - The RCAF to pass information from its control centres to the Civil Defence Liaison Officer or to the appropriate Civil Defence centre; the Civil organization to be responsible for passing the information downward through its own communications channels to the communities likely to be effected;
- (c) Blackout - The RCAF to be responsible for specifying the areas in which blackout is to be maintained; this to be worked out in conjunction with the Navy, Army and civilian authorities. The provision and policing of blackout should be the responsibility of the Civil Defence Organization;
- (d) Control of Radio and other Electronic Propagations - The RCAF in conjunction with the other services and the DOT to be responsible for working out a method of shutting down any transmitter that is not essential to the defence;
- (e) Provision of Emergency Air Lift - The Civil Defence Organization with the help and advice of the Flying Clubs, the RCAF and DOT to be responsible for organizing the air lift resources of each community and providing the basic framework within which added airlift for service and outside civil sources can work.<sup>31</sup>

23. During the year ending 31 March 1951 a total of 165 candidates (six Navy, 73 Army, 30 Air Force and 56 civilians) attended course given by the A.B.C.W. Wing of the R.C.A.M.C. School at Camp Borden. According to its Annual Historical Report:

The entry of civil defence personnel into the ABCW classes has given the services an insight into the civilian disaster control problems which are frequently overlooked by the wearer of military uniform. Conversely, the military side of the picture has been made more clear to the civilians through the closer acquaintanceship achieved on these courses. The practice has been to have a panel discussion at the conclusion of each ABCW course, conducted by a Senior Officer. In this Forum the views and opinions of the Fire Chief, the Medical Officer of Health, the Police Chief, the soldier, sailor and airman are aired, and

usually resolved. Without trespassing on political ground, it is thought that the civilian authorities should continue to use the ABCW Wing as part of the Civil Defence Training Programme as a valuable aid to supplementing other training such as conducted at the Civil Defence School in Ottawa, for in a mixed class a better understanding of each others problems is achieved which will materially assist in future disaster control.<sup>32</sup>

24. With the coming of spring a Civil Defence Technical Training College was established at the Canadian Army's Connaught Ranges, just west of Ottawa. Here it was possible to accomodate more students, as well as conduct outdoor training and demonstrations.<sup>33</sup>

25. The Chief of the General Staff agreed on 9 August 1951 that the Army should maintain close contact with Civil Defence developments across Canada. He refused, however, to lend General Worthington an officer capable of undertaking operational planning, arguing that all suitable officers were badly needed elsewhere and that "tail-enders" would be of little use to him.<sup>34</sup>

26. During the next month General Worthington visited the four western provinces, and New Brunswick and Nova Scotia. Alberta's organization had made the most progress, because of the keen interest shown by Premier E.C. Manning and his Social Credit Government. Progress had been made in British Columbia and Saskatchewan, which last could be regarded as a "reception area" only. Nova Scotia had developed an organization, but was now without a director. New Brunswick had only a part-time director. Prince Edward Island had no provincial director, and thus little had been done in the way of organization; but it was primarily a reception area. Greater Winnipeg had a very good organization, headed by Major-General M.H.S. Penhale, but there was little else in Manitoba. The western provinces considered that the costs of Civil Defence should be shared between the federal and provincial governments, but the eastern provinces maintained that the federal government should shoulder the whole burden.<sup>35</sup>

27. The coming of inclement weather forced the Civil Defence Technical Training College to suspend activities at Connaught Ranges. Only lecture courses could be given on the fourth floor of the Elgin Building in Ottawa during the winter months of 1951-1952. Short courses were given elsewhere, however, including four-day courses conducted at seven centres across Canada for a total of 611 nursing instructors. During the year ending 31 March 1952 the following civilians received some form of training at federal expense:

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British Columbia	132
Alberta	139
Saskatchewan	55
Manitoba	134
Ontario	234
Quebec	308
New Brunswick	46
Nova Scotia	80
Prince Edward Island	10
Newfoundland	<u>7</u>
	1145

A further 121 federal civil servants and R.C.M.P. personnel received training. Four key personnel attended Civil Defence courses in the United Kingdom; a further 16 attended a one-week course given in the United States by the Federal Civil Defense Administration.<sup>36</sup>

#### Enlarged Military Commitment

28. The years 1952 and 1953 found the Canadian Army too pre-occupied to devote more than lip service to the problems of Civil Defence. To make matters worse, the responsibilities of the Departments of National Defence and of National Health and Welfare were not yet clearly defined. So far as Continental Air Defence was concerned, the R.C.A.F. was providing only four squadrons of fighter aircraft and a recently organized Ground Observer Corps of unpaid volunteers. The Canadian Government felt that its best additional contribution could be the provision of an early warning Mid-Canada Line of radar stations along the 55th parallel of latitude. This would be supplementary, when completed, to the Pinetree Chain built up by the United States.

29. During April 1952 the Cabinet Defence Committee did authorize the stockpiling of \$9,000,000.00 worth of Civil Defence medical supplies at the Central Medical Equipment Depot in Ottawa, but as late as November 1954 only about \$3,500,000.00 had been actually expended on purchases.<sup>37</sup> The wartime R.C.A.F. training school at Arnprior, Ontario was finally made available to the Department of National Health and Welfare as permanent location for a Canadian Civil Defence College. This opened for classes on 6 February 1954. Commandant was Major-General M.H.S. Penhale, who had been serving as Civil Defence Co-ordinator for Winnipeg following his retirement from the Canadian Army.<sup>38</sup> Similarly the Chiefs of Staff Committee's decision of 21 March 1952 that an inter-service school should replace the A.B.C.W. Wing of the R.C.A.M.C. School at Camp Borden was implemented late in February 1954. Even then the resulting Joint Atomic Biological and Chemical Defensive Warfare School was attached to the R.C.A.M.C. School for all purposes except duty and discipline.<sup>39</sup>



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30. Early in 1952 Brigadier J.C. Jefferson, an Edmonton business man who had set up a Civil Defence organization in that city, became Deputy Federal Civil Defence Co-ordinator. In consequence, General Worthington was able to spend more time visiting those provincial and municipal Civil Defence bodies whose problems were most pressing. The Canadian Government's programme of "matching grants" made by provinces to municipalities was accepted only by British Columbia, Alberta, Saskatchewan, Manitoba and Newfoundland. In consequence, there was more dissatisfaction than progress in the five remaining provinces. Although several lesser Ontario municipalities were making the best of limited resources, neither Toronto nor Ottawa were evincing interest in Civil Defence. Montreal was the only city in the province of Quebec with an active Civil Defence organization.

31. On 11 February 1954 the Joint United States-Canada Civil Defence Committee held a third meeting, at which it was agreed that Civil Defence organizations across Canada would participate in the American command post exercise "ALERT" and all subsequent exercises having an international flavour. "ALERT" was held on 14-15 June, when simulated attacks were made on 42 American and eight Canadian cities. This was the first real test of the command post established at the Canadian Civil Defence College. Brigadier Jefferson now resigned to return to the world of business. A suitable successor as Deputy Federal Civil Defence Co-ordinator was not found until late in the autumn, when Major-General George S. Hatton was appointed. He had recently retired from the British Army after almost 30 years service; had been born in Peterborough, Ontario and educated at the Royal Military College of Canada.

32. General Worthington attended several Civil Defence conferences held under N.A.T.O. auspices in Paris and made arrangements with the Canadian Embassy to facilitate the interchange of information. Following the May 1954 meeting, a permanent N.A.T.O. secretariat was created in Paris, under Wing Commander Sir John Hodsoll who had been Director General of Civil Defence Training in the United Kingdom.<sup>40</sup>

33. During March 1954 action was taken by the Chiefs of Staff Committee in Ottawa to revise a provisionally approved paper entitled "Assistance of the Armed Forces in Civil Defence".<sup>41</sup> A more realistic attitude was becoming necessary. Enemy air attacks could cause damage to the extent that Civil Defence organizations might be overwhelmed and the Armed Forces compelled to assume such functions for a temporary period, and at the expense of their primary role. General Officers Commanding the several Commands and the Federal Civil Defence Co-ordinator were asked to comment on the new draft. Changes also seemed indicated in consequences of the lessons of Exercise "ALERT".<sup>42</sup> Further re-appraisal was made necessary by the study submitted to the Cabinet by the Minister of National Health and Welfare on 1 November. This emphasized that Civil Defence had been largely an "educational effort" to date:

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... conditioning the general public to accept the possibility that destructive air attack 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 be mobilized instantly at the desired point, to cope with one minimal atomic bomb dropped on one large or middle-size Canadian community.<sup>43</sup>

A "working group" headed by General Charles Foulkes, Chairman of the Chiefs of Staff Committee, examined the proposals advanced. In the light of the information presented to the Cabinet Defence Committee by Dr. Solandt on 12 November, it made the following overall recommendation:

One of the most important decisions affecting civil defence which has been taken within the past year has been that by which the military authorities have accepted a substantially increased commitment with respect to the role of the Armed Forces in aid of Civil defence. This decision, taken in the light of the information which has become available within the past year as to the destructive powers of the latest and largest thermo-nuclear weapons, is still in the process of being implemented. Consequently the precise relationship of the civil defence organization and the Armed Forces on many detailed points has still to be determined. It will be sufficient at this stage, when the Cabinet is considering the future dimensions of the civil defence budget and programme over the next year or so, to take into account, as a relevant factor, this trend towards an enlargement of the extent of the military commitment and responsibility to reinforce and support wherever necessary the civil defence effort.<sup>44</sup>

Acceptance by the Cabinet Defence Committee on 24 November of the working group's recommendations meant that the Civil Defence programme would continue unchanged, although subject to "continuous review" by a small interdepartmental committee headed by the Clerk of the Privy Council.<sup>45</sup>

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34. On 14 February 1955 the Chiefs of Staff Committee issued a revised policy statement on "Assistance of the Armed Forces in Civil Defence".<sup>46</sup> A new General Staff Instruction was issued on 13 May,<sup>47</sup> but the role envisaged for the Canadian Army caused much adverse comment, both from General Officers Commanding across Canada and from General Worthington.<sup>48</sup> By this time the United States had undertaken the construction, and the cost, of a third radar chain which was named the Distant Early Warning or DEW Line. The Canadian Government had agreed to this project, whose stations would be spaced across the Arctic between Northern Alaska and Greenland at roughly the 70th parallel of latitude, and which would complete a combined continental air defence system (CONAD).

35. Earlier suggestions from the other Services that the Militia should be given a definite Civil Defence role had been rejected by the Chief of the General Staff. By the summer of 1955, however, there was growing doubt at Army Headquarters as to whether it would be possible to mobilize and quickly despatch an expeditionary force to North-West Europe should war suddenly break out: large scale enemy attacks with nuclear weapons against North America would likely disrupt mobilization. One suggestion was to convert at least part of the Militia into a "Home Defence Force" or "Disaster Force" and thus keep the Regular Army free for its roles as mobile striking force and expeditionary force.<sup>49</sup> On 28 December 1955 the Civil Defence Policy Committee agreed that, in the event of war, the Russians would bomb North America without warning:

- (a) To destroy as far as possible the retaliatory forces.
- (b) To disrupt the morale and to destroy the war making capability of North America.<sup>50</sup>

The industrial centres of Montreal and Toronto were considered to be the most likely targets, followed by the national capital area of Ottawa-Hull. Other probable target cities were Windsor, Niagara Falls, Halifax, Vancouver, Hamilton, Winnipeg, Edmonton, Quebec, Saint John and Victoria, in that order. Early in January 1956 the Premier of Manitoba expressed dissatisfaction with the limited co-operation between the Chiefs of Staff Committee and the Federal Civil Defence Co-ordinator. He thought that General Worthington should be a member of the former and that the Militia should be committed to a Civil Defence role. The editor of the Winnipeg Free Press indicated that his newspaper would feature a series of articles on this theme.<sup>51</sup> In a letter of 13 February the Ontario Fire Marshal argued that the Armed Forces were "very much the best trained people in Canada in all phases of radiological defence", thanks to the A.B.C.W. courses given at Camp Borden, and should assume a great deal more responsibility for Civil Defence.<sup>52</sup>

36. A satisfactory General Staff Instruction No. 56/3 was issued only on 24 April 1956. Civil Defence was deemed to be in the same category as the "aid to the civil power" given in any other type of disaster or emergency. Two situations had to be planned for:

- (a) Where aid is supplied to a civil defence organization in being and functioning.
- (b) Where a civil defence organization has been destroyed or where no such organization exists.<sup>53</sup>

General-Officers Commanding were to plan to use all Army units within their Commands - Regular and Militia, field and static; at the same time, however, they must bear in mind every unit's role on mobilization. Planning must also include the employment of Naval and Air Force units, except for those of Air Defence Command. Army forces were to be organized into self-contained Mobile Support Groups capable of performing the same tasks as those envisaged for Civil Defence mobile columns. Each should contain the following:

- (a) A command element.
- (b) A communications element.
- (c) A reconnaissance element (including radiation monitors, when available).
- (d) An engineer element.
- (e) A medical element.
- (f) A transport element.
- (g) A traffic control element.
- (h) A rescue element.
- (j) A general labour element.
- (k) A feeding element.
- (l) A repair and recovery element.

An officer at each Command or Area Headquarters would be detailed to maintain liaison with the appropriate provincial Civil Defence organization. Such Army Liaison Officers (Civil Defence) were:

- (a) To ensure that services are informed of and, where appropriate, conform to provincial civil defence regulations.

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- (b) To keep their Commander advised of civil defence plans and keep the civil defence organization informed of service views on civil defence plans.
- (c) In an advisory capacity, to assist civil defence organizations in formulation of plans, if required.

Additional officers might be detailed for liaison duties with other local Civil Defence organizations. Separate appendices dealt with the tasks prescribed for Civil Defence Mobile Columns and the types of special training that military personnel would require.

37. By the time this instruction had reached the unit level and its gist had been circulated by General Worthington's staff to Provincial Civil Defence Co-ordinators, however, it was too late to influence the Militia's summer training programme. Also for future implementation was the Canadian Cabinet's decision on 14 June 1956 that "our civil defence policy should now be based on the development and testing of plans for the orderly evacuation, on short notice, of the main urban areas in Canada should the possibility of attack on such areas by nuclear weapons appear to be imminent".<sup>54</sup> Non-essential civilians would be evacuated from target cities whenever attack seemed probable. The balance would be withdrawn as soon as enemy aircraft actually approached Canada.<sup>55</sup> This decision, based on more up-to-date scientific information, meant that a great deal of existing Civil Defence doctrine had to be discarded. Perusal of General Worthington's Diary indicates the urgency given the need to develop a new training doctrine and revamp the courses given by the Canadian Civil Defence College at Arnprior.

38. During February 1957 the Civil Defence Policy Committee approved a Chiefs of Staff Committee recommendation that "the RCAF with the cooperation of the Department of Transport Meteorological services and such Government Departments as might be primarily interested, should be charged with the responsibility for collecting, assessing and disseminating information concerning nuclear detonations and radiation fallout".<sup>56</sup> The R.C.A.F. subsequently allocated about 2000 Ground Observer Corps' posts to serve as the basis of a reporting system; regular personnel were allocated to filter centres; and arrangements concluded with the R.C.M.P. to man posts where there was no Ground Observer Corps organization.

#### Creation of EMO

39. During the summer of 1956 the Cabinet created an interdepartmental committee, headed by the Clerk of the Privy Council, to study the whole field of "civilian defence". Major J.C. Morrison, who was positioned in the Privy Council as Military Secretary

of the Cabinet, acted as secretary.<sup>57</sup> After several months of study it made detailed recommendations to the Government's War Book Committee. On 4 April 1957 the Cabinet agreed that an Emergency Measures Organization should be established within the Privy Council to perform the following functions:

- (a) Development of an overall federal programme of emergency planning, including, at an appropriate time, the drafting of a new Government War Book;
- (b) Stimulation and co-ordination of planning within departments of government;
- (c) Preparation of plans for an emergency headquarters for the federal government;
- (d) Co-ordination of plans for the emergency communications facilities required by federal departments and agencies;
- (e) Preparation of plans for the decentralization of federal authority and functions if circumstances should so require;
- (f) Detailed planning in areas not specifically the responsibility of any existing department, such for example as censorship, road transport, and the continuity of government in general;
- (g) Primary responsibility for the Canadian aspects of NATO work on civil emergency planning;
- (h) Submission of recommendations to the Inter-departmental Committee on the War Book as to the organization and duties of the Emergency Measures Organization in the second phase of its existence.<sup>58</sup>

The Cabinet agreed that the Armed Forces should cooperate in the implementation of this programme and second officers to the new organization in order to get it started.

40. On 1 June 1957 an Emergency Measures Organization became part of the Privy Council and responsible directly to the Prime Minister. Mr. R. Byrns Curry, who had been serving as Director of the Family Allowances and Old Age Security Division of the Department of National Health and Welfare, became Director. Major Morrison became his Executive Assistant, in addition to continuing as Military Secretary of the Cabinet. The

advent of a Progressive-Conservative Government headed by Mr. John G. Diefenbaker, following the general election of 10 June 1957, made no difference to the initial workings of what is commonly referred to as "EMO". The intention was that the regular departments and agencies of government could and should undertake the greater part of the emergency planning. On 12 July 1957 the War Book Committee agreed upon a specific allocation of departmental planning responsibilities, based on the following principles:

- (a) A wartime function of government that is clearly an extension of a peacetime responsibility of an existing department or agency should be a responsibility of that department or agency for emergency planning purposes.
- (b) A wartime function with no peacetime counterpart or for which no one federal department or agency has a clear responsibility in peacetime, should become the responsibility of EMO for emergency planning purposes.<sup>59</sup>

The Department of National Defence was to be responsible for:

- (a) Employment of the defence forces in aid of the civil authorities, particularly:
  - (i) Aid to the Civil Power;
  - (ii) Assistance to Civil Defence;
  - (iii) Assistance to the R.C.M. Police.
- (b) Bomb location, radiation monitoring, fall-out forecasts.
- (c) Communications for these purposes.

The Department of National Health and Welfare continued responsible for:

- (a) Civil Defence
  - (i) Warnings of attacks;
  - (ii) Evacuation, reception and dispersal, including related movement control;
  - (iii) Rescue and first aid;
  - (iv) Fire-fighting and decontamination;
  - (v) Local detection and monitoring of radiation hazards;
  - (vi) Shelters;
  - (vii) Communications for Civil Defence purposes.
- (b) Emergency health services, including medical manpower and supplies.

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General Worthington's appointment as Federal Civil Defence Co-ordinator was not renewed, however, and he retired on 17 September 1957 - his 68th birthday. General Hatton took over his duties, but continued to be only Deputy Federal Civil Defence Co-ordinator.

41. During 1958 the Department of National Health and Welfare finally secured as Senior Warning Control Officer (Civil Defence) a retired R.C.A.F. officer, Group Captain G.D. Keddie. He was posted to the R.C.A.F.'s Air Defence Command Headquarters at St. Hubert, Quebec, on the premise that all air activity intelligence applicable to Canada and adjacent areas would be displayed for evaluation at its Combat Operations Centre. Four watchkeeper positions were established so that the warning centre could be manned on a 24-hour basis. The Senior Warning Control Officer was provided with a full-time circuit to the Government telephone switchboard in Ottawa. Connections were available to the Prime Minister's switchboard, Federal Civil Defence Headquarters, R.C.M.P. Headquarters and to the switchboard of the Canadian Civil Defence College at Arnprior. There was also an attack warning network of "call-up" voice circuits (on an engineered basis) to:

- (a) Provincial Civil Defence Co-ordinators at Victoria, Edmonton, Regina, Winnipeg, Toronto, Quebec City, Fredericton, Charlottetown, Halifax and St. John's.
- (b) Civil Defence Co-ordinators at Specific Zone and Target Areas such as Vancouver, Barrie, Windsor, London, Kitchener, Niagara Falls, St. Catharines, Hamilton, Brockville, Montreal and Saint John.<sup>60</sup>

Some considerable time would be required to activate this last mentioned attack warning system, however, and separate action taken through various agencies to summon responsible personnel to their duty stations. Moreover, Group Captain Keddie continued to reside in Ottawa and spent only three or four days a week at St. Hubert, while the four watchkeeper positions were never filled.

42. According to a progress report submitted by the Emergency Measures Organization on 18 March 1958, planning was progressing satisfactorily. This view proved to be wrong, however, and little was accomplished during the balance of that year. Most departments lacked any sense of urgency and relied on only part-time planning staffs. It was difficult or impossible to obtain interdepartmental agreement on what might be done. For example, representatives of the Departments of Trade and Commerce, Defence Production, and Agriculture were unable to agree on a wartime organization for the control of supply and production of essential commodities. Since the Emergency Measures Organization was only a co-ordinating agency, this particular working group finally decided to suspend its activities.



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43. This was anything but heartening in view of the worsening world situation. A communique published on 1 August 1957 announced that a North American Air Defense Command (NORAD) was being established, with Headquarters at Colorado Springs, Colorado. The R.C.A.F. direct contribution was, however, only nine CF-100 all-weather fighter squadrons. These were based at St. Hubert, Ottawa, Bagotville, North Bay and Comox. Serious doubt was cast on the continued efficacy of the DEW Line of radar stations by the announcement, on 26 August 1957, that the Russians had successfully fired a ballistic rocket of intercontinental range. Several N.A.T.O. countries were now pressing the United States to give them atomic warheads for tactical and defensive missiles and were proposing reductions in the size of their conventional military forces.

44. Since several years might elapse before basic plans and facilities for emergency government would be completed, approval was obtained from Prime Minister Diefenbaker for proceeding with the following interim programme:

(a) Stage I

- (i) Arrangements for moving an essential core of the federal government to a single alternate site in existing facilities some distance from Ottawa;
- (ii) Selection of rallying points to which the remaining personnel of departments and agencies with wartime functions could be directed to report, and where the gradual reconstruction of departmental activities could be undertaken if facilities in Ottawa are unavailable;
- (iii) Arrangements to employ existing departmental field staffs as makeshift regional organizations;
- (iv) Provision of the minimum necessary communications facilities.

(b) Stage II

- (i) Development of departmental rallying points into partially prepared re-location sites;
- (ii) Improvement of federal regional organizations and provision of some interim facilities to accommodate them;
- (iii) Provision of additional and improved communications.<sup>61</sup>

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Such measures might gradually merge into the long-term programme. Mr. Diefenbaker's statement in the House of Commons on 21 August to justify the vote of \$150,000.00 for "preparatory work" was, however, limited to only the most general propositions.<sup>62</sup> When Lieutenant-General H.D. Graham retired as Chief of the General Staff on 31 August 1958, he was immediately seconded to the Department of National Health and Welfare in order to make an independent report on Civil Defence.

45. On 16 October 1958 the Clerk of the Privy Council wrote the Deputy Minister of National Defence to request that some of the facilities at Camp Petawawa be made available as a main site for central emergency government during the interim stages. On 29 October the new Chief of the General Staff, Lieutenant-General S.F. Clark, discussed details of a cover plan (EXERCISE "PHOENIX") with Mr. Curry. On 18 November General Clark informed Mr Curry as follows: D.M.O. & P. had been appointed to negotiate with the EMO staff; the General Officer Commanding, Central Command and the Commander of Camp Petawawa were the only other Army officers aware of what was being planned; "RUSTIC" was accepted as the code word; EMO officers might visit Camp Petawawa when required. The accomodation selected had been intended as Headquarters for the now-defunct 1st Canadian Infantry Division. During the winter of 1959 arrangements were made for 1 Field Squadron, R.C.E. and 25 Works Company, R.C.E. to proceed with radiation proofing against radioactive fallout of the basement and ground floor of Bessborough Hall, the Camp's telephone exchange and the portion of the water pumping station normally occupied by its operator. Only Bessborough Hall was reserved for government use; the telephone exchange, water pumping station, barrack block, officers and sergeants quarters and messes, and administration buildings would continue in normal use until required.<sup>63</sup> Apart from the communications staff, to be provided by the Canadian Army and accomodated separately, "RUSTIC" would be able to house the Governor General and several Justices of the Supreme Court (to ensure continuity of formal authority), the Prime Minister and Cabinet, the Chiefs of Staff or their representatives, the Commissioner of the R.C.M.P. or his Deputy, senior officials of those departments and agencies with essential wartime functions, and some supporting staff, including clerical personnel. A preliminary survey indicated that schools, office buildings and warehouses in various towns of the Ottawa Valley could be utilized as rallying points and later as re-location sites for the remaining personnel of essential departments and agencies of government.<sup>64</sup>

#### MILITARY ACTIVITY, 1959

##### Emerging Army Role

46. During early December 1958 the Chief of the General Staff was allowed to read the report on Civil Defence submitted by General Graham to the Cabinet. After returning this document, General Clark ordered a study to be made of the problems which the Canadian Army would

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encounter in organizing its forces for the battle of Survival, with particular reference to the role of the Militia. This study was to be co-ordinated by the Director General of Plans and Operations. Emphasis was to be placed on:

- (a) The need to concentrate on the training of officers and NCOs, together with a greatly increased student militia.
- (b) The need to tailor our training standards to the realities of the survival role, i.e.:
  - (1) Making full use of existing civilian skills as a basis for organizing units in fringe localities.
  - (2) The redundancy of many heavy weapons now in the hands of the militia.
  - (3) The necessity to designate specific tasks so that the militia will know their objectives and so train effectively.<sup>65</sup>

47. The resulting Aide-Memoire, dated 23 December 1958, emphasized the changes recently made in post-war thinking. The Canadian Government had now accepted the concept that the first phase of a future major conflict would be a relatively short and intense period of nuclear warfare. Should Canada be subject to attack with little or no warning the result would be catastrophic. Mass casualties and destruction in some or all of the 13 likely target areas would be followed by starvation, epidemics, fear, confusion, panic, and even anarchy. The seven percent manpower requirement now estimated for Civil Defence duties would be 1,200,000 men and women.<sup>#</sup> This would include 341,000 for employment in the 13 target areas. Even this figure, however, was 211,400 greater than the Canadian Army's resources. Since it would not likely be possible to increase the regular forces, the gap would have to be narrowed by expanding the Militia in peace-time and by absorbing civilian survivors after an emergency occurred.<sup>66</sup>

48. The Aide-Memoire argued that existing military procedures would be most suitable; as many forces as possible should be formed; these must be located outside of target areas. Task Forces should be commanded by a brigade-type headquarters. Each Task Force should contain at least one major unit of Regulars. Whereas the main strength of the Militia components would have to come from non-target areas, some 42 percent of the existing Militia were living in target cities. The likely situation would be as follows:

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<sup>#</sup> Other N.A.T.O. countries had assessed the manpower requirement for Civil Defence at anywhere from five to 20 percent of the total population.

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Logistic or support units would be positioned in the maintenance areas near each target city. The CA(M) components of these areas would be based to take advantage of existing civilian facilities. For example, Engineer elements would be located near civilian construction firms, the RCEME organization would be based on civilian garage facilities and the RCAMC units would be built around the civilian medical organization. This way we would tap the civilian resources where they exist. Obviously there would be a large bill for stockpiling stores like blankets and clothing etc, for such Ordnance depots as would be established; although conceivably some civilian stocks might be utilized if in the area. At the outset of operations, Traffic Control and Radiation Monitoring units would be deployed and the task forces would commence to move toward the target areas through the maintenance areas, the task forces being supported by the maintenance units. Obviously, the CA(R) task force HQ and CA(R) unit or units would be the first in, followed by the CA(M) units as soon as they could be formed and despatched<sup>67</sup>

Considerable reorganization would be necessary for the Militia and a great deal of reliance would have to be placed on women, student militia and cadets. Time and patience would be required; also missionary work among existing Militia units by the several Defence Associations.

49. A Civil Defence organization within Army Headquarters had been suggested by the Director General of Plans and Operations as early as 19 December 1957, when a study had been completed of the implications which would result from the Canadian Army's assumption of complete responsibility for Civil Defence in Canada. A Director General of Militia and Civil Defence, in the rank of major-general, should control and co-ordinate the activities of a Directorate of Militia and a Directorate of Civil Defence. He should be directly responsible to the Chief of the General Staff. The Directorate of Civil Defence should be organized into four small sections - plans & operations, co-ordination & liaison, training, and logistics. Any additional functions could be performed by existing directorates, with little increase in establishment.<sup>68</sup>

50. While the Directorate of Military Operations & Plans was busy planning the employment of the envisaged 66 Mobile Support Columns (44 from the Militia)<sup>69</sup> in what was now being commonly called "Survival Operations", the Naval Member of the Joint Planning Committee urged that

this term should be defined. Therefore, after consultation with the Emergency Measures Organization, the following suggestions were offered:

- (a) National Survival  
The whole process whereby, following an attack on Canada or its Allies, Canada survives and thereafter continues to prosecute the war.
- (b) Survival Operations  
All military and non-military operations undertaken by the Canadian Armed Forces which directly contribute to national survival.
- (c) Civil Defence  
Those aspects of national survival which are primarily concerned with the saving of human lives in the immediate period of attack.<sup>70</sup>

51. Following the meeting of the Minister of National Defence with the Conference of Defence Associations, the Chief of the General Staff advised the several General Officers Commanding on 29 January 1959 that the training of the Militia would be designed to make it effective in Survival Operations rather than in field operations. Detailed instructions would be issued later.<sup>71</sup>

52. During February the Chief of the General Staff discussed with General Foulkes the factors which should govern the assistance the Army could give to the Civil Authority in Survival Operations.<sup>72</sup> The Emergency Measures Organization also continued its studies. The Government's ad hoc Committee on Civil Defence finally decided as follows:

The Department of National Defence should be given most of the technical functions in survival operations, which heretofore have been mainly the responsibility of the Civil Defence authorities. That Department should, in particular, be given the tasks associated with warning and providing other emergency communications, and with re-entry, rescue and decontamination in damaged areas. It is suggested that the Department of National Defence should designate the Canadian Army as the responsible service for most of this work. In more detail these are the tasks which it is suggested should be given to the Department of National Defence:

- (a) Warning, specifically the provision of technical facilities and the operation of a system to warn civilians of the likelihood and imminence of attack. The warning system should be capable of

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taking the necessary data from the RCAF or intelligence sources, obtaining whatever authority is necessary from Ministers to issue the warning, and transmitting it to the population. It might be desirable for National Defence to contract with local police or fire services to disseminate the warning, once received in the locality, to the population.

- (b) Determining the location of nuclear explosions and the probable pattern of fallout, and issuing the necessary warning of fallout to the public and the military forces. This task should probably be performed by the Army in co-operation with the Air Force.
- (c) Assessment of damage and casualties from attack and fallout.
- (d) Controlling, directing and carrying out the re-entry into areas damaged by nuclear explosions or subjected to fallout, decontamination work in those areas, and the rescue and provision of first aid to those trapped or injured.
- (e) Direction of police and fire services in damaged or fallout areas which are the object of re-entry operations, including control of traffic and movement of people in those areas. It is recognized that this task presupposes co-operation with local police and fire services in areas likely to be attacked, and some specialized training of those services in peacetime.
- (f) Provision of emergency support to the police to deal with panic or the breakdown of civilian authority, for example in the protection of food and medical convoys, if necessary.
- (g) Maintenance and operation of emergency communications, including those for emergency government, and servicing of headquarters facilities, for emergency government.
- (h) Recruiting and training of armed services, both regular and auxiliary, that are necessary for carrying out these survival functions.
- (i) Storage of medical supplies and the provision of emergency hospitals in military camps likely to be outside the fallout area.<sup>73</sup>

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53. The statement that Mr. Diefenbaker made in the House of Commons on 23 March was very general in nature.<sup>74</sup> The Prime Minister added that he was writing to the Provincial Premiers at greater length and that this letter would be tabled in the House. Dated 26 March it emphasized that Civil Defence must be treated as an "integral part of possible nuclear war": in the event of its breaking out "the effort to meet the complex problems that will arise would in some areas constitute virtually the entire function of government".<sup>75</sup> Hereafter, Civil Defence activities would be treated as part of the whole complex of preparation for defence against attack. The Emergency Measures Organization within the Privy Council Office would handle federal co-ordination and planning under the general direction of the Prime Minister. On the other hand, provinces and municipalities had much more experience in such peacetime fields as the preservation of law and order, control of traffic, and the provision of medical, hospital and public health services. Such "reception services" as emergency feeding and other welfare activities for people rendered destitute could also better be handled under provincial arrangements. The Federal Government could, however, provide financial support, technical assistance and the services of the R.C.M.P. where necessary. The Federal Government was prepared, subject to approval by Parliament, to make provincial grants amounting to 75 percent of the cost of agreed projects for Civil Defence undertaken by them or municipalities. The actual division of responsibilities could be settled later; meantime, planning should get under way. He hoped that each Premier would send one of his ministers to a special meeting which the Minister of National Health and Welfare, Hon. J.W. Monteith, hoped to convene in Ottawa on 17 April.

54. During the course of this meeting it was suggested that provincial governments be responsible for the following tasks:

- (a) The preservation of law and order with whatever support is necessary and feasible from the armed services at provincial request.
- (b) The control of traffic except in areas damaged or covered by heavy fallout, including assistance in emergency movement of people from areas likely to be attacked or affected by heavy fallout.
- (c) Reception services which involve accommodation, emergency feeding and welfare services for evacuees.

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- (d) Organization and control of medical services, hospitals and public health measures.
- (e) Clearance, maintenance and repair of highways.
- (f) Maintenance and repair of water and sewage systems.
- (g) Provision of fire fighting services and their direction except in damaged areas or areas of severe fallout, in which case these fire fighting services would be directed by the Army as part of the re-entry operation.
- (h) Maintenance and repair of utilities.
- (i) Training of civilian Civil Defence workers.<sup>76</sup>

The Department of National Health and Welfare would continue to advise and assist provinces with their medical services, hospitals, public health measures and reception areas. The R.C.M.P. would advise and assist provinces in planning and organizing for the preservation of law and order and the control of traffic. The Emergency Measures Organization would be responsible for the following:

- (a) Coordination of emergency planning in the various areas of responsibility assigned to other departments and agencies of the federal government.
- (b) Planning responsibility for tasks formerly grouped under the designation of Civil Defence and now not specifically assigned to some other federal government department or agency.
- (c) General liaison with provinces and advice to provincial authorities on matters that are not the responsibility of other federal agencies.

Naturally enough, provincial ministers could only agree to discuss the matter with their own colleagues and meet again in Ottawa during the autumn.

55. The Minister of National Health and Welfare outlined the decentralized federal system of emergency government which was being planned: central, regional and some zoned elements would be able to carry on a considerable part of the work; the federal government would be represented by regional representatives in most, if not all, the provinces. Functions of such an emergency federal government would be:



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- (a) General direction of the Defence Forces.
- (b) Conduct of foreign relations.
- (c) General direction of Civil Defence activities.
- (d) Preservation of law and order.
- (e) Allocation of housing.
- (f) Distribution of food, fuel and other essential commodities.
- (g) Provision and control of essential medical and public health services.
- (h) Maintenance and control of transport and communications.
- (j) Control of public finances and emergency financial measures which may be necessary.
- (k) Direction of production and distribution of essential materials and services, including price controls.
- (l) Employment of manpower as may be needed to cope with the emergency.

The question of whether the Canadian Government should have an evacuation and/or shelter policy was discussed at some length. The decision would, however, have to be made by the Cabinet.

56. According to the White Paper on Defence issued on 19 April 1959:

- 24. All the Regular and Reserve Forces in Canada, not directly engaged in activities against an aggressor, will be available for survival operations. The organization and training of the Regular Army and Militia are generally suitable for this role, in that they provide disciplined soldiers trained in the special skills needed. In fact, it is an extension of the role which the Army has undertaken for many years in aid of the civil power in national disasters. A small staff will be established At Army Headquarters in Ottawa to provide coordination and general supervision of survival plans and training. To facilitate co-operation with Provincial Governments some adjustments of command and area boundaries may be required in order that military and provincial regional responsibilities coincide. R.C.A.F. Auxiliary flying squadrons, which until this year were equipped with F-86 day-interceptor aircraft

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- and had an air defence of Canada role, have now been assigned the role of search and rescue and aid in survival operations in the event of a nuclear attack on this country.
25. Regular and Militia units will be trained so that they can undertake reconnaissance and radiation monitoring and move into damaged areas to rescue and evacuate the injured. Also, training will be necessary in traffic control, road clearance, demolitions, bridging, assistance in the restoration of public utilities and in the maintenance of law and order.
  26. Necessary equipment will be provided to meet these tasks. Mobile support columns will be provided with radiac equipment, rescue equipment, vehicles for evacuation and communication equipment to control operations. In order to control survival operations efficiently, radio communications connecting National Defence Headquarters to all its main camps and garrisons will be provided.
  27. The equipment not needed for survival operations will be withdrawn gradually from the Militia as equipment for these operations is introduced. Selected members of the Militia will be attached to Regular Army units in the summer to train on the type of equipment not available to the Militia.
  28. Militia units will continue to retain their time-honoured traditional names, honours, dress, badges and affiliations. Although mobile support columns will have a general pattern of organization, major units of the artillery, armoured and infantry corps will form these columns with internal adjustments to their current establishments.<sup>77</sup>
57. Many newspapers across Canada printed derogatory editorials and cartoons, bemoaning the demise of the Militia as a fighting force. These naturally attracted more attention than the constructive thinking of newspapers like The Saskatoon Star-Phoenix:

Conversion of the 41,000-member Canadian militia into a Civil Defence force, announced in the federal government's White Paper, was expected. The recent revolution in the whole structure of combat and defence, a revolution recognized in Britain several years ago by reduction of militia manpower, was an inevitable result of nuclear weapons'

ascendancy. Although this change in the role of the militia may cause many wailings and heart-tugs among the traditionalists, its new mission could equal or even surpass in performance, and therefore in importance, the past glories of the army services' various branches.

If atomic war comes the awful task of the federal and the provincial governments will be to try to preserve a normal state of affairs and to maintain a minimum of panic among civilians. That being so, the placing of the country's militia in a civil defence role is a realistic step. In recent years a civilian defence organization has worked hard to prepare Canada against nuclear attack. But, despite the energy and idealism of our civilian defence leaders, the Canadian people were apathetic in their response. The argument of the man-on-the-street has been that civilian preparedness against atomic and hydrogen bomb warfare would be futile in its results. But to the "what's the use?" attitude of mind, the entry of the militia into the defence field for the protection and care of civilians, may have a positive impact and bring forth a responsive note.<sup>78</sup>

Furthermore, it should not be forgotten that members of the Militia were far from happy with the policy hitherto pursued by the Minister of National Defence. Annual training had recently been reduced from 60 to 40 days per year and Militia appropriations had been slashed. The new policy did suggest that there was to be a realistic role.

58. Order in Council P.C. 1959-656 of 28 May 1959 revoked, with effect from 1 September 1959, the Order in Council which had transferred responsibility for Civil Defence from the Minister of National Defence to the Minister of National Health and Welfare in February 1951 (see para 19). It also authorized a Civil Defence Order, 1959. On and after 1 September 1959 the Minister of National Defence should have and would exercise the following Civil Defence powers, duties and functions:

- a. provision of technical facilities and operation of a system to give warning to the public of the likelihood and imminence of an attack;
- b. determining the location of a nuclear explosion and the patterns of fallout, and giving the necessary warning of fallout to the public;

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- c. assessment of damage and casualties from attack and fallout;
- d. controlling, directing and carrying out re-entry into areas damaged by a nuclear explosion or contaminated by serious radioactive fallout, decontamination work in those areas, and the rescue and provision of first aid to those trapped or injured;
- e. direction of police and fire services in seriously damaged or contaminated areas which are the object of re-entry operations, including the control of traffic and movement of people in those areas;
- f. direction of municipal and other services for the maintenance and repair of water and sewer systems in seriously damaged or contaminated areas;
- g. provision of emergency support to provincial and municipal authorities in the maintenance of law and order and in dealing with panic or the breakdown of civilian authority; and
- h. maintenance and operation of emergency communication facilities.

The Minister of National Health and Welfare would continue responsible for:

- a. assistance to provincial and municipal governments and to others in connection with the organization, preparation and operation of:
  - (1) medical, nursing, hospital and public health services; and
  - (2) services to provide emergency accommodation, emergency feeding, emergency supplies, guidance and welfare assistance for persons who have lost or left their homes because of acts of war or apprehended acts of war; and
- b. maintenance and operation of the Civil Defence School at Arnprior, Ontario.

The Minister of Justice, through the R.C.M.P., should have the power, duty and function to assist provinces and municipalities in:

- a. maintaining law and order; and
- b. controlling and directing traffic in connection with civil defence exercises and operations;

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except where the Department of National Defence was concerned. Through the Emergency Measures Organization, the Prime Minister should exercise the following Civil Defence powers, duties and functions:

- a. the co-ordination of civil defence planning by departments and agencies of the Government of Canada;
- b. the preparation of civil defence plans in relation to matters that are not the responsibility of any other department or agency of the Government of Canada;
- c. assistance to provincial governments and municipalities in respect of preparation for civil defence where assistance is not the responsibility of any other department or agency of the Government of Canada; and
- d. general liaison with other countries, with the North Atlantic Treaty Organization and with provincial governments on matters relating to civil defence.

59. The Cabinet also approved construction of two underground structures as the beginning of a permanent central nucleus for emergency federal government and as a successor to "RUSTIC". Each structure would be able to accommodate 410 persons. One would be the primary headquarters for emergency government, housing the Governor General, Prime Minister and other key personnel mentioned above (see para 45). The other would be used primarily as a resources control and operational headquarters for the proposed wartime supply agency, but could function as government headquarters should the first structure be damaged. Bearing the code name "EASE" (Experimental Army Signals Establishment), this project would be linked to the rest of Canada by a specially designed communications system, which would have a "significant ability" to withstand nuclear attack and would be operated by Royal Canadian Signals personnel. Although the enemy was bound to learn of the construction of "EASE" and other underground concepts, these would be very difficult for him to destroy. Unless he should learn which structure actually housed the Prime Minister and Cabinet, enemy missiles were almost certain to be directed at such obvious targets as undefended cities.<sup>79</sup>

60. The remainder of the staff belonging to key departments and agencies would travel to relocation sites in Ottawa Valley towns, as conceived earlier. These would function in the basements or other underground portions of buildings which had been given partial protection against nuclear warfare.

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61. During the course of a meeting convened on 11 June 1959 to discuss the communications terminals needed at provincial capitals to work "RUSTIC", the Minister of National Defence emphasized that there should be no approach to the provinces yet on "EASE". If any of these should raise the question, it was to be sidetracked by the argument that first discussions should concern the temporary and very urgent matter of "RUSTIC". The Army could manage "Little RUSTICS" in each provincial area, as an EMO regional organization came into being.<sup>80</sup> These would utilize mobile radio and continuing telegraph facilities. Such a crash programme, with very low capacity, was naturally only a temporary expedient. On 26 June the several General Officers Commanding were told to "put out feelers" respecting permanent military-provincial headquarters similar to the existing Command Post ("RUSTIC") at Petawawa. They were to earmark sites for each province in existing army camps, and additional facilities in Ontario and Quebec.<sup>81</sup>

62. During 24-26 June there was a Command Post Trial Exercise of "RUSTIC" at Camp Petawawa. A total of 274 all ranks took part in some or all of the tests conducted in Bessborough Hall. Considerable attention was given to such administrative problems as feeding and sanitation (including the disposal of both wet and dry garbage and the daily accumulation of barrack room litter),<sup>82</sup> which still seem to plague the experts.

63. Mention should also be made of the Federal assistance provided after fire had devastated a large portion of Lanark, a small Ottawa Valley town near Arnprior, on 15 June. According to THE Ottawa Journal of 19 June:

Lanark, like Ottawa and a good many other communities, had no Civil Defence organization ready to stand between tragedy and complete chaos. It was Lanark's luck, however, to have quickly and generously available the skills and the resources of the Federal Civil Defence training headquarters at Arnprior.

Civil Defence experts arrived with a fire-fighting team and a rescue team. Trucks brought blankets and food, pumps and hoses. Civil Defence electric lighting plants supplied light before power lines could be established again. It was the Civil Defence corps which organized volunteer firemen to keep a watch throughout the night after the professionals had to leave because of exhaustion.

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The indispensability of trained reserves quickly available could not have been more convincingly demonstrated.

Yet Civil Defence is persistently the neglected child.

Civil Defence has been neglected because we think of it exclusively only in connection with atomic destruction. That destruction is so frightening, so total, that Civil Defence seems only futile and we think of it without conviction.

But as Lanark showed, there is a vital role for trained, local, semi-professional volunteers in disasters too great for the ordinary resources of police and firemen.

Directorate of Survival  
Operations & Plans

64. Although Order in Council P.C. 1959-656 of 28 May 1959 was tabled in the House of Commons on 2 June, Brigadier Arthur E. Wrinch had then been functioning as Director General, Survival Operations since 1 May 1959. Officially, however, he continued to cover off the appointment of Director General of Army Personnel until 31 May. The existing Survival Operations Section within the Directorate of Military Operations & Plans remained under Lt.-Col. G.P. Marriott, but came under the direction of Brigadier Wrinch. Only after Headquarters, Prairie Command should be reduced to nil strength, and a new Manitoba Area and the existing Saskatchewan Area be added to Western Command, would it be possible to create a distinct organization for Survival Operations within the Canadian Army's authorized rank structure.<sup>83</sup> Brigadier Wrinch would then be promoted to the rank of major-general and appointed "Major-General Survival", thereby eliminating the need for a Director General, Survival Operations.

65. The work of drafting a new Chiefs of Staff Committee paper on the "Role of the Armed Forces in Survival Operations" was, however, started immediately. On 8 June a draft was sent to the Judge Advocate General for comment.<sup>84</sup> The precis issued by Brigadier Wrinch on 26 June consolidated existing information on "Organization and Policy, The Canadian Army in National Survival".<sup>85</sup> The Minister of National Defence subsequently directed that the Canadian Army examine the implications related to the "attack warning" problem and submit implementation measures for consideration on 12 August by the Cabinet Committee on Emergency Plans. On 31 July General Officers Commanding were warned that certain essential measures were required on a phased basis:

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(a) By 1 September 1959

- (1) Designation of responsible authorities empowered to declare national alerts.
- (2) Assumption of the existing Dept of Health and Welfare warning facilities by the Cdn Army and locating of personnel at ADC, St. Hubert.
- (3) Initiation of actions necessary to establish a Federal Warning Centre in Ottawa.
- (4) Full time manning of the attack warning network down to Provincial/Command/Area level.
- (5) Continued use of communication networks at lower echelons previously arranged under provincial CD auspices to carry warning information to target areas and population centres.

(b) Subsequent to 1 September 1959

- (1) Assignment of senior warning and control personnel to NORAD HQ for the purpose of establishing the primary attack warning and evaluation centre at Colorado Springs.
- (2) Assignment of warning and control personnel to 25 Air Division Control Centre at Tacoma, Washington to provide moment-to-moment track data and local air attack intelligence to Western Canadian Provinces.
- (3) With the establishment of the primary warning centre at NORAD HQ conversion of the attack warning agency at St. Hubert to a facility designed to provide moment-to-moment track data and local air intelligence to Ontario, Quebec and the Atlantic Provinces.
- (4) Complete the establishment of the Federal Warning Centre at the alternative location and Ottawa.

(c) Subsequent to 1 February 1960

- (1) Complete the attack warning system and public warning networks down to lowest levels of population.
- (2) Re-examine the effects of the changes in the NORAD organizational structure



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as it related to civil defence warning activities, as Sage Air Divisions become operational.

- (3) Complete radio communications "back-up" networks down to lower echelons.<sup>86</sup>

The above measures were related only to the "manned bomber threat". Other action would be required to cope with "ballistic missile attack". Command and Area Headquarters were immediately to take the action necessary to implement items under a. (4) and (5).

66. The question of an establishment for Survival Operations hung fire all summer, despite the terms of reference issued as early as 26 June. These included the following mission for the Director General, Survival Operations:

1. Advice to the Staff concerning policy and plans for the Canadian Army's role in Survival operations, and the coordination of such matters with other Directorates, Services, Government departments and agencies.
2. The development of policy and plans for all components of the Canadian Army in the training aspects of survival operations, and the coordination of these matters with interested Directorates, Services and government departments and agencies.
3. The development of training plans and policy for the Royal Canadian Army Cadets.<sup>87</sup>

The sections and responsibilities of a Directorate of Survival Operations & Plans, to be headed by a colonel, were:

a. Plans (Lt-Col - GSO 1)

General Staff plans for survival operations including the preparation of policy statements, staff instructions and orders. Mobilization planning with respect to survival operations.

b. Operations (Lt-Col - GSO 1)

Staff aspects of operations concerning re-entry, rescue, bomb location, decontamination, damage assessment, radiation monitoring, radiation proofing, and passive measures.

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c. Warning (Lt-Col - GSO 1)

Arrangements for and control of the warning system for Canada, to include:

- (1) Receipt of warning from the RCAF or other appropriate source.
- (2) Obtaining Ministerial authority for issue, and
- (3) Dissemination of warning.

d. Liaison (Lt-Col - GSO 1)

To carry out liaison with the Emergency Measures Organization, the Department of National Health and Welfare, Royal Canadian Mounted Police, and other government departments and provincial agencies as required. Provision of public information on matters pertaining to survival operations.

e. Survival Equipment Policy (Maj - GSO 2)

Equipment policy matters.

The Director of Reserves & Cadets (subsequently renamed Militia & Cadets) was to be responsible to the Director General, Survival Operations for:

- a. Preparation of training policy statements and instructions dealing with survival operations, and advice thereon, applicable to the Reserves.
- b. Advice concerning preparation of training policy statements and instructions dealing with survival operations applicable to the Canadian Army (Regular).
- c. In conjunction with the Directorate of Survival Operations and Plans, the determination of training equipment requirements for survival operations, ie, radiac, rescue, communications, vehicles and standard military equipment.
- d. Liaison with RCN and RCAF concerning survival operations.
- e. Production and maintenance of instructions and directives to the Cadet Services of Canada and the Royal Canadian Army Cadets.

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67. As soon as Headquarters, Prairie Command became dormant on 31 August, its Chief of Staff, Colonel L.E. Kenyon was posted to Army Headquarters as prospective Director of Survival Operations & Plans. The appointment of major-general was given to Brigadier Wrinch. He became Major-General Survival on 1 September, when the Department of National Defence actually assumed responsibilities under Order in Council P.C. 1959-656. On 22 September General Hatton submitted his resignation as Deputy Federal Civil Defence Co-ordinator. It was immediately accepted by the Minister of National Health and Welfare.<sup>88</sup> The Federal-Provincial Conference on Civil Defence, meeting in Ottawa on 2 October, was given a demonstration, showing as graphically as possible, the part the Army was to play in Survival Operations.<sup>89</sup>

68. As early as 3 September, General Wrinch had written the Vice Chief of the General Staff that only a framework need be created for his Survival organization if assistance could be provided from other directorates on a temporary basis. Certain reductions could be made in the establishment proposed earlier for a Directorate of Survival Operations & Plans, but he felt that the equipment section should be headed by a lieutenant-colonel rather than a major, in order to secure a better qualified officer for this important field.<sup>90</sup> Therefore the establishment which took effect on 15 October provided one colonel, five lieutenant-colonels, eight majors, two captains and 16 other ranks.<sup>91</sup> Colonel Kenyon, who had been using the title "DMO & P(SO)" to control Lt.-Col. Marriott's section, now became Director of Survival Operations & Plans.<sup>92</sup>

69. Speaking to the Chief of the General Staff's Conference with General Officers Commanding and Area Commanders on 1 October, the Minister of National Defence had emphasized:

- a. The importance of planning for survival operations; and being able to carry out survival operations.
- b. The importance of being ready to meet any situation, anywhere in the world.<sup>93</sup>

Units must be well trained in the use of their weapons and equipment; all ranks must be physically fit to meet any conditions. The Minister said it was unlikely that the Militia would engage in operations in Europe or elsewhere; it should be allotted to the defence of Canada, with emphasis placed on the role of Survival. Militia training should emphasize this role of Survival. Yet Canadian Army (Regular) units would remain the first troops available for Survival Operations, unless they were actually employed otherwise.

70. General Wrinch told the same conference that, due to shortage of staff, planning was not proceeding as quickly as desired. Therefore planning was being concentrated on the following priority tasks:

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- (a) The warning system.
- (b) Radiac equipment.
- (c) Communications.<sup>94</sup>

#### National Survival Attack Warning System

71. On 12 August 1959 the Cabinet Committee on Emergency Plans approved the Army's proposed warning system. This called for rented line facilities down to community level and radio back-up facilities down to provincial level. The Army would provide sirens and siren control circuits within communities, with provincial and municipal authorities co-operating as to location and installation. The Army would sound the warning and distribute tactical information to provincial, target area and most zone civil defence headquarters, as well as providing connections from these to certain radio networks and stations nominated by EMO for the issuance of instructions to the general public.<sup>95</sup> The proposal also called for Canadian Army officers to be employed at Headquarters, NORAD in Colorado Springs and at 25 Air Division (SAGE) Operations Center in Tacoma, Washington.

72. The Cabinet Committee on Emergency Plans was told that the DEW Line was designed to provide only approximately three hours warning of attack by sub-sonic manned bomber aircraft against North America. Whenever ICBMs and submarine-launched I.R.B.Ms. should become the primary threat, the amount of warning would be reduced to 15 or 20 minutes. Members of this Committee felt that it would be unwise to delay issuing public warning of an impending attack: better to create a false alarm than delay too long. The Prime Minister did not agree, however; following discussion by the full Cabinet on 25 August, he directed that authority to declare a national Civil Defence alert was vested in himself or, in his absence, designated representatives who included the Secretary of State for External Affairs (Deputy Prime Minister), the Minister of National Defence and the Associate Minister of National Defence.<sup>96</sup> On the advice of the Warning Control Officer to be located at Headquarters NORAD, the senior officer on duty at Army Headquarters in Ottawa would advise the Prime Minister or, in his absence, the delegated Cabinet Minister, of the circumstances and conditions that called for the alerting of the general public and request authority to sound the alarm. It was clearly understood, however, that this National Survival Attack Warning System would be directed only at the general public. The Royal Canadian Air Force continued to be responsible for warning the Government of either the threat or imminence of attack and for declaring certain states of "alert" in connection with the air defence of Canada.<sup>97</sup>

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73. Since there was insufficient time to implement a telegraph warning network before 1 September, the Army had to take over operation of the call-up voice warning system initiated by the Department of National Health and Welfare in 1958. General Wrinch's staff experimentally "called-up" these circuits to Provincial Co-ordinators, but found that this took about an hour and a half, since none of the stations was manned on anything like a full-time basis. The last province, Saskatchewan, did not actually join the warning network until the second day. In consequence, the call-up voice warning system was modified to provide communications to joint Army-Province warning centres and to Army warning centres in provinces where as yet there was no joint effort. These were manned on an around-the-clock basis. The converted National Survival Attack Warning Centre at the Combat Operations Room, St. Hubert was now staffed by a lieutenant-colonel (controller) and four captains (watchkeepers). A full-time voice circuit was soon established from St. Hubert to the Federal Warning Centre at Army Headquarters in Ottawa. The latter also was staffed continuously. The direct "hot-line" telephone service from the government switchboard in Ottawa now operated only to Army and R.C.M.P. Headquarters. Circuit and equipment demands necessary to convert the whole National Survival Attack Warning Network from an engineered call-up voice system to a full-time two-way teletype circuit were made on manufacturing companies.<sup>98</sup>

74. A modified system came into operation on 15 November 1959. The Federal Warning Centre was now located in Room 1030, "B" Building of the Department of National Defence in Ottawa. It was linked to St. Hubert by both telephone and teleprinter. In turn, teleprinter receivers led into each of 10 provincial warning centres and Quebec Command's separate warning centre in Montreal.<sup>99</sup> On 16 November a direct voice circuit was installed between the United States Office of Civil and Defense Mobilization Warning Center at 26 Air Division (SAGE) Combat Operations Center, Syracuse, New York and the National Survival Attack Warning Centre at St. Hubert, to facilitate co-ordination of activities in Eastern Canada and the North-Eastern portion of the United States. Action had been initiated to provide Canadian Army representation at 25 Air Division (SAGE) Operations Center, to be located at McCord Air Force Base, Tacoma, Washington. This would pass air activity information to British Columbia and Alberta. Consideration was being given to the establishment of Canadian information centres at other SAGE Combat Centers adjacent to the international boundary in the Middle West.<sup>100</sup> The expectation that the Primary Warning Centre might be moved from St. Hubert to Headquarters, NORAD has never come to pass, however, and the Canadian Army has only a single liaison officer there.<sup>#</sup> Canadian elements have been added to the SAGE Combat Centers at Kansas City, Missouri and Madison, Wisconsin; these, as well as the previously mentioned establishments at Tacoma and St. Hubert, are NORAD Regional Headquarters. These operations centres are able to provide a moment-to-moment picture of manned bomber and friendly intercept air traffic.

<sup>#</sup> This story must be left to a later report.  
Information may be found on H.Q.T.S. 2001-1982/0 and  
H.Q.T.S. 2001-1982/HQ.

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75. As the year 1959 came to an end, the division of responsibilities respecting implementation and maintenance of sirens was still under review at Army Headquarters. Thus procedures introduced earlier by the Department of National Health and Welfare remained in force. Headquarters establishments of the several Commands and Areas across Canada had been augmented to provide Nuclear Staff Officers to function as advisers and a programme had been devised for their training in the assessment, prediction and reporting of nuclear activity.<sup>101</sup>

76. Plans to implement a Joint Army-R.C.A.F. Nuclear Detonation and Fallout Reporting System were halted, when the Chief of the Air Staff suggested on 9 November that the entire operation be an Army responsibility.<sup>102</sup> The Chief of the General Staff agreed.<sup>103</sup> This, however, vitiated much of the work accomplished during the early autumn by the Army's study group composed of representatives of the Department of Transport's meteorological service, R.C.M.P., Canadian Army, R.C.A.F., Defence Research Board and Emergency Measures Organization. Only on 16 March 1960 was it possible for Lt.-Col. G.L. Vincent's Warning Section of the Directorate of Survival Operations & Plans to produce a detailed study of a proposed Nuclear Detonation and Fallout Reporting System.<sup>104</sup>

Other Developments

77. General Graham's Report had recommended that the Government's policy on evacuation of target cities be substantially modified and members of the general public be advised what type of shelters they might build for themselves. Studies undertaken by the Canadian Army Operational Research Establishment suggested that the total evacuation of major cities would bring the economy to a standstill and thus be self-defeating. Essential workers should be encouraged to remain and accept risk of possible attack. If any other citizens preferred to remain in their homes, no attempt should be made to force them to leave - a policy which had been neither satisfactory nor necessary in the United Kingdom during the Second World War.<sup>105</sup> After all, Toronto and Montreal were the only Canadian targets comparable to many American cities. Lieut.-Colonel R.E. Nourse represented D.S.O. & P. on the Working Group on Evacuation and Shelter which held its first meeting on 16 July. Mr. J.C. Morrison of the Emergency Measures Organization was chairman; other members were from the Departments of Finance and National Health and Welfare, the Defence Research Board and the Canadian Army Operational Research Establishment. The Working Group's recommendation was issued as a Government statement of policy on 20 November. "Canadians should not be compulsorily required to leave their homes", it emphasized, "for the result might well be that in avoiding one danger other risks would thereby be incurred."<sup>106</sup> Yet provision for evacuation should be made for those residents of target cities desiring to leave, "excepting of course that persons in certain classes of occupations must be asked to remain at their posts

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to safeguard essential utilities and services". As long as an enemy had to deliver nuclear bombs by means of manned aircraft there would be sufficient warning for people to abandon target cities, if proper traffic arrangements existed. There would, however, be only a few minutes warning once an enemy acquired long range missiles equipped with nuclear warheads. Even costly anti-blast shelters would not provide complete protection against nuclear explosions close at hand, so the Government was not planning to construct them in target areas. Substantial protection against radioactive fallout could, however, be provided by relatively simple family basement refuges or shelters. The Government planned to issue a booklet describing these (including a shelter designed by members of the Working Group). Federal-provincial-municipal surveys were suggested as a means of earmarking urban buildings suitable for possible use as large fallout shelters.

78. During the spring of 1959 General Hatton had recommended the formation of a Civil Defence Air Service, but no action was taken because of the contemplated reorganization and transfer of certain Civil Defence responsibilities to the Canadian Army. Since various civilian flying organizations kept on offering their services, however, Lt.-Col. J.V. Cook of D.S.O. & P. attended the Fifth Annual Convention of the Canadian Owners and Pilots Association, held at St. Jovite, P.C. on 16-19 October, to stall the issue until an opinion could be obtained from Air Force Headquarters. On 3 November the Chief of the Air Force finally replied, advancing sound reasons why the R.C.A.F. should not take civil air associations under its wing: it would be difficult to exercise control and establish standards of qualification; accidents would result in claims against the Crown; R.C.A.F. regular and auxiliary squadrons possessed sufficient resources for any of the duties envisaged.<sup>107</sup> On 26 November, therefore, General Wrinch wrote the Director of the Emergency Measures Organization, suggesting that all civil air associations be advised to contact provincial Civil Defence Co-ordinators. Individual civilian pilots might join local Civil Defence bodies and perform tasks which were a provincial responsibility. These included communications flights to reception areas, patrolling of utility lines, movement of small quantities of medical stores and drugs, and evacuation of casualties.<sup>108</sup>

79. Lt.-Col. Marriott represented D.S.O. & P. at meetings of the Ad Hoc Committee on Civil Emergency Planning. Because the Committee of Deputy Ministers was not active, this group did most of the interdepartmental planning, including the scheduling of Command Post exercises to try out "RUSTIC".<sup>109</sup>

80. Although General Wrinch's organization was advised and/or assisted from time to time by most directorates at Army Headquarters, and Lt.-Col. W.H. Finch of the Directorate of Signals was particularly involved in its communications plans, separate reference should be made to

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the work of the Canadian Army Operational Research Establishment. Its Director, Mr. H.H. Watson, served as a member of the Working Group on Evacuation and Shelter, as well as instituting analytical studies of particular aspects of Survival Operations. These commenced with the warning-of-attack phase and carried on to the end of the life-saving phase, roughly two days, and considered the following aspects: pattern and weight of attack; warning of the public; post-attack situation in target cities and casualties from blast, fire and ionizing radiation; rescue efforts required in cities; aerial survey of fallout; evacuation from areas of serious fallout; probable distribution of fallout over Canada; pre-attack passive defence aspects.110

81. Sample organizations for Task Force Headquarters and Mobile Support Columns were compiled by the Directorate of Survival Operations & Plans. In consequence, most of the radiac equipment required for 66 Columns was on order by late autumn, while a training scale of rescue equipment was being delivered. A provisional instruction on Militia training had been sent direct to units.111 In a telegram of 2 December 1959, addressed to the General Officers Commanding the Western, Central, Quebec and Eastern Commands, the Chief of the General Staff reiterated the importance of training for Survival Operations:

Para two. Those units or sub units warned for duty with our Brigade Group in Germany will not have to undertake training for Survival Operations, except in so far as they are necessary for Field Operations, during the year immediately preceding movement to Germany. However, such units and sub units will retain their survival equipment until they proceed overseas so as to be able to participate in Survival Operations in an emergency.

Para three. Except as mentioned in para two, the Regular Army and Militia will carry out training for Survival Operations and Field Operations as called for in the Annual Training Directive and if there is any need to give a priority between training and administration for Survival Operations and training and administration for Field Operations in order to fit both into the year's programme, then priority must be given to Survival Operations.

Para four. If you find that the training, administrative and other tasks given to you by Army Headquarters make it difficult or impossible for you to train for Survival Operations and still keep up a high standard in Field Training bearing in mind that those units going overseas will not have to train for Survival Operations during their last year in Canada, then please let me know your specific problems.112



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Work continued on the drafting of a new Chiefs of Staff paper on the "Role of the Armed Forces in Survival Operations"<sup>113</sup>

82. On 22 December 1959 The Ottawa Citizen carried an interview with the Minister of National Defence, explaining that the recent shutdown of work for about 300 men employed on the construction of a secret underground communications centre at Cedar Hill, about 10 miles west of Almonte, Ontario, was temporary. "For the first time he revealed officially that the Almonte station is one of two communications centres being built underground for use in the event of atomic war." Mr Pearkes had added that the similar structure at nearby Carp was being carried to completion and the lessons learned from its construction would be applied when work was resumed at Cedar Hill. According to the newspaper, both projects were officially called "Army Signals Experimental Establishments". At the same time, and upon the recommendation of the Working Group of the Committee on Regional Emergency Government Headquarters, which had been meeting throughout the autumn, work was dropped on the emergency signals plan for "Little RUSTICS". Subsequent planning would concentrate on permanent construction at each military-provincial headquarters site. When completed, these would be manned by R.C. Signals personnel. Their limitation to an economical and practicable size, however, meant that only minimum space could be reserved for federal, provincial and military components to function should the need arise.<sup>114</sup>

#### Conclusion

83. Events subsequent to 1959 will be the subject of a later report. The present report was written by J. Mackay Hitsman. It was read in draft by Major-General A.E. Wrinch, Lt.-Col. J.V. Cook and Major E.D. Price. Their comments have been incorporated.

(G.M.C. Sprung), Colonel  
Director Historical Section

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