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Situation of the Canadian Forces in the  
United Kingdom, Summer, 1941: V

The Problem of Equipment

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1. A further report is submitted. This is the fifth in the series begun with No. 33. It deals with one of the most fundamental problems which have confronted the Canadian Army (and all the other Armies of the British Commonwealth): that of providing adequate equipment for the forces in the field.
2. Mechanization and the generally increased complexity of modern equipment have made this problem much more difficult than in the last war, though it was serious enough even then. Moreover, the British Empire to-day is fighting an enemy who has the advantage of having mobilized his industries for some six years previous to the beginning of hostilities, for the sole object of the most efficient production for military purposes; while the British nations, broadly speaking, began to prepare much later (in Canada the Bren gun contract, signed on 31 Mar 38, is an important landmark), limited their preparations when they did begin, and even after the outbreak of war did not fully exploit their productive resources until the German victories in the spring and summer of 1940 showed the desperate peril of their situation and the full measure of their antagonist's strength.



3. A point which is certain to interest historians of this war is the extreme slowness with which the production of modern weapons is organized by a country whose industry is geared to peacetime tasks. After two years of warfare, the production of the British nations is at the time of writing still inadequate to the needs of the forces, and deficiencies in the equipment of the Canadian Corps are still a source of anxiety to its Commander. An armament industry cannot be created overnight; and the Canadian forces would be much better armed to-day if the plan advanced by General McNAUGHTON when Chief of the General Staff, for a Dominion Arsenal plant capable of manufacturing all those forces' major requirements, had been accepted and acted upon.

4. As must always be the case with reports covering a very large field, the present one is very far from exhaustive. Aspects of the problem which here receive only the briefest mention could each be made the subject of extensive inquiry if circumstances permitted. The aim is merely to present a sort of bird's-eye-view of the subject, calling attention to its importance and providing for the guidance of the Official Historian a very general outline of the development of the equipment question during 1940 and 1941.

5. The sources here drawn upon are certain basic files at C.M.H.Q., particularly that of the weekly General Report for 1 Cdn Div, 7 Corps and Cdn Corps (successively) in which the equipment situation is regularly reviewed (4/PROGRESS/2); supplemented by references to cables exchanged between C.M.H.Q. and N.D.H.Q., by conversations with officers conversant with the matter in various aspects, and to some extent by personal observation.

GENERAL SURVEY OF THE EQUIPMENT PROBLEM OF THE  
CANADIAN ARMY OVERSEAS, 1940 - 1941.

6. When 1 Cdn Div arrived in Britain in December, 1939, it was necessarily very deficient in modern armament, and was in general armed with the weapons of the last war. Canadian sources of modern weapons did not yet exist, except in embryo; and the United Kingdom's factories had lately been working to capacity on British Government



orders. 1 Cdn Div infantry units, therefore, crossed the ocean armed with the Lewis light machine gun instead of the more modern Bren. The only artillery weapon available in Canada in numbers was the 18-pounder, a weapon much inferior, in range and otherwise, to the new 25-pounder gun-howitzer. The field regiments of 1 Cdn Div arrived in Britain without guns. After being provided for a time with four 25/18 pounders<sup>1</sup> per regiment, they were obliged to relinquish these and were fitted out with a full complement of the obsolescent 18's, drawn, it is believed, from the Canadian supply. The 6-inch howitzers provided for 1 Cdn Med Regt, which arrived in the United Kingdom in February, 1940, came from British sources; there were not in Canada enough even of these relatively outdated weapons to equip this unit.

7. Through the winter and the spring of 1940 the process of equipping 1 Cdn Div and its ancillary units from British sources went on gradually. The General Report for 1 Cdn Div for the week ending 24 Feb 40 makes the following observation:

War Office has given preferential treatment provision training equipment but limited issue particularly motor transport hampers progress generally.

For the week ending 11 Mar 40 it was reported that deliveries of Bren guns to bring the scale to 40 per rifle battalion, "and of Boys Anti-tank rifle to complete establishment" were expected to begin the following week. Universal carriers began to arrive in March, and on 27 Mar 1 Cdn A.Tk Regt received six 2-pounder guns "making total of eight now with unit" (Report week ending 30 Mar 40). As spring came on the shortage of M.T. became a matter of regular complaint. In this connection, the report for the week ending 6 Apr 40 observes:

Unit collective training Divisional Troops proceeding but now reaching stage where progress is definitely limited by shortage of mechanical transport  
Preferential treatment in issue from British stocks received but supply from that source inadequate for present requirements.

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The 25/18 pounder, a re-bored 18 Pdr.Mk. IV, has an only slightly lower performance than the 25-pounder.



This situation showed signs of improvement in May with the beginning of deliveries of Canadian vehicles; the report for the week ending 18 May noted, "Eight 15-cwt trucks received from Assembly Plant Southampton", and the succeeding week's report stated that 344 Canadian 15-cwts. had been received to date. The heavier types of Canadian-manufactured vehicles came in more slowly; the report for the week ending 6 Jul 40 remarked that Canadian 30-cwt. and 3-ton lorries were not yet available for issue.

8. Coincident with the German attack in the Low Countries in May was a material improvement in the equipment of the Canadian force. For the week ending 18 May it was reported that G 1098 equipment was "generally being received at accelerated pace", and the report for the week ending 1 Jun summed the general situation up as follows:

Total guns now available as follows STOP Anti Tank  
Regt forty-two Divisional Artillery regts forty-eight  
Army Field regts twenty-four Medium regt complete STOP  
Approximately 700 vehicles of all types taken over in  
emergency from British stocks.

(For purposes of comparison, it may be recalled that the gun establishment of the artillery units mentioned is as follows: A.Tk Regt, 48; three divisional Field Regts, 72; two Army Field Regts, 48; one Medium Regt, 16.)

9. It was proposed, it will be remembered, that 1 Cdn Div should proceed to France in June, 1940, and one brigade group did actually land in France, only to be withdrawn immediately. (see my Report No. 15). In preparation for this enterprise, the units were issued with full, or nearly full, equipment. The report for the week ending 8 Jun 40 remarks,

Equipment 1 Cdn Div rapidly approaching  
completion at ALDERSHOT STOP Completion non Divisional  
units follows.

10. As noted in Report No. 15, 1 Cdn Inf Bde Gp, which got to France, lost much transport and other equipment through destruction under orders before withdrawal. Even 1 Cdn Fd Regt, R.C.A., which

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1 The Canadian Mechanization Depot, SOUTHAMPTON, was destroyed by enemy action during the following winter.



saved its guns, lost much other equipment. The consequence was that when the Canadian Force moved to the OXFORD area late in June, the units which had reached France were obliged to remain at ALDERSHOT for re-equipment, and the force was thus one brigade group short. During the week ending 20 Jul 1 Cdn Inf Bde and 1 Cdn Fd Coy moved to the REDHILL area and returned to the order of battle; but 1 Cdn Fd Regt, 4 Cdn Fd Amb, and 1 Cdn Med Regt were still not included in the field force, the deficiencies now being mainly in M.T. In the course of the next few weeks the worst gaps were filled, and 1 Cdn Div and the ancillary troops (now incorporated in 7 Corps) were in essentials prepared for battle.

11. By this time units of 2 Cdn Div were beginning to arrive in the United Kingdom, and the problem of equipping them proved a very difficult one. On 20 Aug 40 Lieutenant-General McNAUGHTON wrote to the Senior Officer, Canadian Military Headquarters, a letter expressive of his concern in the matter. (See C.M.H.Q. file 1/RELEASE EQUIP/1.)

12. This letter dealt with the supply of equipment both for 2 Cdn Div and for ancillary troops, and remarked that it appeared to be impossible "to obtain either the necessary equipment or any assurance as to when it will be made available; this seems to be due to the apparent division of responsibility of allotment between the War Office and G.H.Q. Home Forces". Special mention was made of the equipment of Corps engineer units. The letter proceeded:

5. Another serious matter, particularly in view of the air menace, is the absolute lack of light anti-aircraft guns in the Canadian Forces or in the British units associated with us in 7 Corps; we are dependent entirely on small arms fire for local protection against hostile aircraft and already casualties are being experienced.

6. I feel that the time has arrived when we must insist on positive information and, if no definite assurance of supply of equipment can be given by the War Office, we should consider advising Canada against the despatch of any additional troops to this country until they can be equipped properly.

The Senior Officer was requested to arrange for a meeting "with representatives of the War Office who can speak with authority on this matter".



13. The consequence was a meeting at the War Office on 30 Aug 40, attended on behalf of Canada by Generals McNAUGHTON and MONTAGUE and Brigadiers LOGGIE, TURNER and POPE and Colonel (now Brigadier) McQUEEN, A.Q.M.G. (O.S.), C.M.H.Q., and on behalf of the War Office by Major-Generals CARR (A.C.I.G.S.), MORRIS (D.S.D.), and HICKS (D.S.D. (Weapons)). At this meeting General McNaughton asked for information to enable him to advise the Canadian government regarding the despatch of more troops, pointing out that certain Corps Troops present in the United Kingdom (Engineer and Medical units) were not fully equipped and that nothing had yet been provided, even for training purposes, for 2 Cdn Div units which had been in England for nearly a month. (Memorandum of meeting by Brigadier Turner, dated 2 Sep 40, file 1/RELEASE EQUIP/1, folio 19A.)

14. General Carr explained in reply that "equipment must be placed where it is most needed" and that large consignments to the Middle East were necessary. To meet these requirements it had been necessary to stop issues to units at home. No Bofors guns were available in England except for A.D.G.B. (Air Defences of Great Britain); all others were going to HAIFA and ALEXANDRIA. Discussion of the Canadian requirements in detail followed. Among the points emerging were the following. No Corps Engineer units in the United Kingdom apart from those of 7 Corps had more than 25 per cent of their W.E. scale of equipment. The whole output of Boys A.Tk rifles was going to the Middle East until 15 Sep, and thereafter two brigades (for ICELAND and WEST AFRICA) had to be equipped before 2 Cdn Div could begin to receive its 25% training scale; while field guns would be still later. Available stocks of tracer S.A.A. were very small. As for S.A.A. for training, "some 83 million rounds had been left in France" but the situation was now improving and about 2 million rounds a week could now be provided to field formations for training purposes. Canadian troops would receive their normal quota through Home Forces.

15. General McNaughton then asked whether, in the circumstances, additional formations should be sent from Canada. He outlined the



overseas force at which Canada was aiming (since published as the Overseas Army Programme for 1941) but observed that the despatch of troops who cannot be equipped makes no useful contribution. The British officers in reply mentioned that "about 12 divs are the most that can be maintained in the Middle East owing to transportation and other problems", and that "24 Divs are in England now in various stages of being equipped". General McNaughton remarked that in view of the information given him he had grave doubts as to whether additional Canadian formations should be sent from Canada in the spring of 1941.

16. In the circumstances described above, the equipment of 2 Cdn Div proceeded very slowly. On 5 Nov 40 the Divisional Artillery, which had been two months in England, had received only twenty-eight guns, and these were 75 mm. (file 1/RELEASE EQUIP/1, folio 63 A). On 7 Nov the D.S.D., War Office (Major-General A.E.NYE, M.C.), in answer to a query from C.M.H.Q. arising in particular out of the recent Army Council decision to reorganize the infantry division on a basis involving a greater scale of equipment, wrote (same file, folio 64A) describing the general situation in discouraging terms. At the moment, he explained, 60% of available equipment was sent overseas and 40% allocated for troops at home. This expression "home" included the following: (a) Home Forces; (b) A.A. Command; (c) British troops in Ireland; (d) Troops in Iceland; (e) Training establishments and new units being formed. The letter proceeded:

It is the function of the War Office to decide how the 40% available for home will be allocated between the various customers and you will appreciate that the percentage coming to Home Forces is small, but the C-in-C., Home Forces is - theoretically at any rate - at liberty to dispose of the equipment coming to him exactly as he wishes. In fact so little is coming to him that he virtually has no discretion because there are certain units whose situation demands that they must have what equipment is available and in practice practically everything has been mortgaged for a few months ahead, and of course there are large deficiencies everywhere.

17. As for the Canadian forces, General Nye pointed out that the equipment requested for them was precisely those items in which the



supply was smallest, and added, "The 1st Canadian Division is a mobilized formation whilst a great majority of divisions in this country are woefully deficient of equipment." He summed the matter up thus:

From these factors I think it is reasonable to deduce that the prospect of the 1st Canadian Division (or indeed any other division) being brought up to the higher standard of equipment due to the recent decision, within the next six months, is precisely nil.

This exposition led General McNaughton to cable Ottawa requesting all possible measures to expedite Canadian production, and suggesting in particular that under existing conditions, "with continued air attacks", it was most important that the Canadian troops have something to hit back with and that the possibilities of obtaining A.A. guns from the United States be further explored (Cable G.S. 2949, CANMILITRY to IMMEDIATE DEFENSOR, 11 Nov 40).

18. During the early part of 1941 the equipment situation of 2 Cdn Div improved slowly. Thanks to Canadian production, the infantry battalions were completed in Bren guns before the end of February (General Report for Cdn Corps, week ending 22 Feb 41). At the same time carriers were being received in considerable numbers, and the artillery situation thereafter gradually bettered; improvement has been marked of late (see below). The division, however, still has considerable deficiencies in guns.

19. The somewhat easier situation of the present moment is reflected in the provision made for 3 Cdn Div, which arrived in this country much better equipped than its predecessors (see my Report No. 43) and has since received field guns in useful numbers (see below). The rather striking contrast with the painful slowness of the process of equipping 2 Cdn Div is a happy index of the expansion of the Empire's war production.

#### THE PRESENT SITUATION IN ARTILLERY EQUIPMENT

20. It will be gathered from the foregoing, and from reference to my previous Reports Nos. 10, 12, 19, and others, that the provision of artillery equipment has been the greatest single problem;



and the present state of this problem deserves more detailed examination.

21. FIELD ARTILLERY. As indicated above, the field regiments of 1 Cdn Div (1, 2 and 3 Cdn Fd Regts) are complete in 25-pounders; and the same is true of the two field regiments of Corps Troops (8 and 11 Cdn A Fd Regts) at present in this country.

22. At the moment of writing, 2 Cdn Div has just received guns to complete the 72 required by establishment. Until recently 25-pounders were obtained very gradually, as follows:

Week ending 1 Feb 41	6 guns	
Week ending 12 Apr 41	6 guns	
Week ending 17 May 41	3 guns	
Week ending 7 Jun 41	25 guns	completing five btys
Week ending 6 Sep 41	24 guns	completing eight btys
Week ending 13 Sep 41	8 guns	completing establishment.

23. 3 Cdn Div already possesses 48 25-pounders, obtained as follows:

Week ending 16 Aug 41	24 guns
Week ending 6 Sep 41	12 guns
Week ending 13 Sep 41	12 guns.

The above figures indicate a notable improvement in the 25-pounder situation in recent weeks.

24. For some remarks on the 75 mm. guns formerly in the hands of 2 Cdn Div, and the process of pneumatizing them, see my Reports Nos. 12 and 19. As recently as the week ending 3 May 41 the receipt of two British 75 mm. equipments by 2 Cdn Div was recorded in the Corps General Report.

25. For a statement of the field-gun situation in Cdn Corps as of 31 Aug 41 (previous to the last issues of 25-pounders noted in paras. 22 and 23 above) see Appendix "A".

26. MEDIUM ARTILLERY. As already noted, the one Canadian Medium Regiment now in this country is fully equipped (with 6-inch howitzers). Equipment in this field, however, has been particularly short (see my Report No.10) and this is the reason why no more Medium



Regiments have been brought to this country. In the light of General McNaughton's views on the utility of concentrations of medium and heavy guns (well known to all students of his writings), and the fact that long-term plans call for providing the Canadian Corps with a total of five Medium Regiments, the present situation appears absurd enough.

27. Every effort has been made to better it. In March 1941, upon General McNaughton's representation, the possibility of manufacturing the new 5.5-inch gun-howitzer in Canada was explored by the Department of Munitions and Supply (see letter General McNaughton to Mr. C.A.BANKS, 6 Mar 41, and cable CANMILITRY to DEFENSOR (GS 396), 13 Mar 41 (L/RELEASE EQUIP/1). The Department of Munitions and Supply decided that the manufacture of barrels in Canada was impracticable, although a Canadian firm is at work on a British order for 300 5.5-inch carriages. In July a cable (DEFENSOR to CANMILITRY, GSD 1060, for Brig. STUART from General CRERAR, 9 Jul 41) reviewed the whole situation and the various possibilities, noting that the United States was to supply the United Kingdom with 300 4.7-inch U.S. barrels relined to 4.5 and fitting the British 5.5/4.5 carriage; and that the U.S. was also providing the British with 400 155 mm. howitzers as a substitute for the 5.5. Any provision of medium guns for Canada from American sources depended, in these conditions, upon obtaining a release from the British War Office - an interesting situation.

28. Brigadier Stuart (V.C.G.S.), then in this country, was able to reply as follows (CANMILITRY to DEFENSOR, GS 1398, 18 Jul 41):

War Office has agreed to fill Canadian overseas requirements in 5.5 inch gun how equipments and carriages from U K sources. Corps Commander initiated and is satisfied with this arrangement. Production here greatly improved over situation in March last when GS 396 was despatched. Arrangement is that equipments will be released to Canadian Corps as need arises by G H Q Home Forces. Four complete equipments are being released immediately to Corps for user trials. (C.M.H.Q. file 1/RELEASE EQUIP/1/2).



29. The consequence of these decisions has been the organization in this country of one bty (7 Med Bty), less one troop, of 5 Cdn Med Regt, for the purpose of conducting the user trials referred to. The remainder of this regiment will be organized as guns become available. The latest information is that the first four 5.5 guns have not yet been received. It is understood however that a much improved supply of these weapons is in sight, and that it is anticipated that within a very few months it will be possible not only to organize and arm the whole of 5 Cdn Med Regt, but also to replace with 5.5s the 6-inch howitzers now in the hands of 1 Cdn Med Regt. (Information from Major W.A.B. ANDERSON, R.C.A., G.S.O.2 (S.D.), C.M.H.Q.; and see C.M.H.Q. file 6/5 MED REGT/1.)

30. It may be worth while to explain that two new British weapons, the 5.5-inch gun-howitzer above referred to, and the 4.5-inch gun, are replacing the 6-inch howitzer and the 60-pounder gun, of which no more are being manufactured. The 4.5 has a somewhat longer range than the 5.5, which however has a more powerful shell. It is proposed to arm all Canadian medium regiments with the 5.5.

31. ANTI-TANK ARTILLERY. As noted in Report No. 10, the situation with respect to 2-pounder A.Tk guns has been very difficult; there have been plenty of carriages but a great lack of barrels, while moreover the arming of tanks has had priority over the arming of A.Tk units. This situation has been reflected in 2 Cdn Div. The Division's A.Tk unit (2 Cdn A.Tk Regt) received its first three 2-pounder guns only during the week ending 18 Jan 41. Nine more were issued during the week ending 15 Feb 41, and twelve were transferred from 1 Cdn Div. At the time of writing, 2 Cdn A.Tk Regt still possesses only 36 guns, and 1 Cdn A.Tk Regt is still short the 12 guns which it gave up. On the other hand, a relative improvement in this field too may be apparent in the fact that 7 Cdn A.Tk Regt, lately organized in this country as a unit of Corps Troops (see Report No. 45), has 24 guns; but 12 of these are to be transferred to the 3 Cdn Div regiment when it arrives.



It is amply clear that the situation is very far from satisfactory.

32. ANTI-AIRCRAFT ARTILLERY. The same is true in respect of the Bofors 40-mm. light A.A.Gun, though there has been improvement since I wrote my Report No. 18. The Canadian A.A. & A.Tk Group at COLCHESTER now possesses a total of 20 Bofors, a respectable provision when it is considered that the majority of the Lt.A.A. Btys formerly there are now performing operational roles under A.D.G.B., which provides the guns for these purposes. An arrangement has been made by which, on the "Stand To" signal being received, H.Q. Cdn A.A. & A.Tk Group will provide for service with Cdn Corps one Lt. A.A. battery, and a second battery less one troop, armed with these 20 guns (C.M.H.Q. file 3/A.A. & A.TK/1).

33. Apart from the needs of the Middle East, it is understood that part of the production of Bofors in recent months has been diverted for mounting on vessels of the Merchant Navy.

34. At the present time there is no complete Canadian Heavy A.A. Regt in this country. Recently, however, on the supposition that 3.7-inch A.A. equipment was likely to be available shortly, it was decided to convert 2 Cdn Med Regt to a Hvy A.A. Regt and despatch it overseas (cables CANMILITRY to DEFENSOR, GS 633, 16 Apr 41 (C.M.H.Q. file 1/FORMATIONS/4/5) and DEFENSOR to CANMILITRY, 26 May 41). Part of this unit arrived for training on T.C. 12A in August, 1941; the rest is to arrive shortly. It has now been notified, however, that 3.7 guns will not be available for the unit on the arrival of the main body; and arrangements have been made for it to proceed to British A.A. Training Regiments.

#### AUTOMATIC WEAPONS

35. As noted above, 1 Cdn Div crossed the ocean equipped with Lewis L.M.G.'s instead of the modern Bren; and it was some time before it was completed with the latter weapon. Thanks largely to Canadian production, Bren equipment has been much less of a problem in more recent months. There are still some Lewis guns



in the Corps, particularly in Corps Troops, but 500 of these weapons have just been disposed of to the War Office on repayment, and further quantities will be so disposed of to meet British needs as Brens become available (Cable CANMILITRY to DEFENSOR, ORD 76, 8 Sep 41). For complete figures for the Canadian Army Overseas, as of 31 Aug 41, see Appendix "B".

36. During the summer of 1941 the Thompson sub-machine-gun, formerly in short supply, has become available (from United States sources) in increasing numbers (for example, the Corps General Report notes 147 of these weapons as issued to Corps units during the week ending 2 Aug 41) and the remaining deficiencies in this field are small. The sub-machine-gun is an important element in present-day armament; each infantry platoon has three, carried by the section leaders.

37. There is no shortage of Medium M.G.'s (Vickers) in the Canadian Army Overseas.

#### OTHER WEAPONS

38. In certain items of infantry armament there are still serious deficiencies. This is particularly true in the case of the Boys A.Tk Rifle (.55)<sup>1</sup>. As of 31 Aug 41, units of Cdn Corps possessed a total of only 563 of these weapons as against an establishment of 1318. Nor has this situation shown any recent improvement; the only A.Tk rifles shown in the Corps General Report as issued since 1 Jun 41 (down to 6 Sep 41 inclusive) are twelve issued to 3 Cdn Div in the week ending 6 Sep. During August General McNaughton gave some aid in this matter to the newly-arrived formations from the slender stocks of 1 and 2 Cdn Divs; nine Boys were transferred from these Divs to 1 Cdn Army Tank Bde, and forty-eight to 3 Cdn Div.

39. In 3-inch Mortars the Canadian Army in the United Kingdom is now almost complete. In 2-inch Mortars, however, there are still

1 This is one instance where shortage is directly traceable to damage to a factory by enemy bombing.



serious deficiencies, those on hand at 31 Aug 41 being only about 50% of establishment. The 3-inch weapon has been received in limited numbers during the summer of 1941, including some from Canadian sources; but very few 2-inch mortars have come to hand, and it appears that the deficiency in this field will be remedied only by the Canadian production now getting under way.

#### FIGHTING VEHICLES

40. During the summer of 1941 deliveries of universal carriers in very useful numbers from Canadian sources have greatly eased the situation in this field. At 31 Aug 41, however, there was still a considerable deficiency. Units of Cdn Corps had on hand 519 against an establishment of 730. This situation may be compared with that of 1 Apr 41, when Cdn Corps had on hand 192 carriers against an establishment of 460, and that of 1 Feb 41, when it had 130 against an establishment of 412. (See C.M.H.Q. file 1/MIN RETS EQUIP/1).

41. "Light" reconnaissance cars, of which a divisional reconnaissance battalion has an establishment of 45, are to all intents and purposes entirely lacking. (These cars were formerly termed "armoured" reconnaissance cars.) During the week ending 19 Apr 41 nine "Beaverette" armoured cars were issued to 4 Cdn Recce Bn (1 Cdn Div) and the same number to 8 Cdn Recce Bn (2 Cdn Div). These machines (consisting of a light armoured body on a standard 14 h.p. commercial chassis, with two-wheel drive) are however considered very inferior except for training purposes. No more of them are being produced. The light armoured cars for the Canadian reconnaissance units are in course of production in Canada. (See cable CANMILITRY to DEFENSOR, GS 854, 13 May 41.)

42. Tanks have become an equipment problem for the Canadian Army Overseas only since the arrival of 1 Cdn Army Tank Bde. As noted in Report No. 42, this formation began to receive tanks on a training scale immediately upon arrival. On 31 Aug 41 it had a total of 49 tanks of all types, as against an establishment



of 178; and during the week ending 6 Sep 41, 13 more "I" tanks were received.

#### OTHER EQUIPMENT

43. The foregoing paragraphs have dealt only with armament and "A" vehicles (plus the reconnaissance cars, which are not considered "A" vehicles). Many other equipment problems cannot be dealt with in this Report. The provision of mechanical transport "B" vehicles, apart from certain special types in which Canadian requirements are relatively small, is in general being made from Canadian sources, the vehicles being assembled at the Canadian Mechanization Depot at SLOUGH, which has replaced the depot destroyed by enemy action at SOUTHAMPTON. This is a very large subject in itself. The same is true of the problem of provision of Signals wireless equipment; and other fields too would have to be covered at length in order to give a really complete picture.

#### NOTES ON CANADIAN PRODUCTION

44. The history of war production in Canada is scarcely a responsibility of the Historical Officer, C.M.H.Q. It may, however, be of some value to the Official Historian if he notes at this time a few salient features of the situation as seen from this country.

45. The slowness with which a country "tooled up" only for the arts of peace changes over, under modern conditions, to production of war material has been remarked upon above. It follows that the fields in which Canada was able to make an important industrial contribution to the Empire's war effort at a comparatively early stage were those in which her peacetime industrial plant could be directly utilized. This was most notably the case in the matter of mechanical transport. With a well-equipped and efficient automotive industry ready to hand, she was able in the course of a few months to organize production of military "B" vehicles on a really large scale. The beginnings of deliveries in Britain are noted above (para. 7). Since that time Canada has made a very important contribution to the equipment, not only for her own forces, but of those of the Empire at



large, in this field.

46. The automotive industry has also been drawn upon for the manufacture of universal carriers. These, however, have less in common with ordinary commercial vehicles, and in consequence production was slower in getting under way. The preliminary trials of a Canadian-manufactured carrier are referred to for the first time in the Corps General Report for the week ending 21 Jun 41.

47. Thanks only to the fact that a contract was placed over a year before the outbreak of war (above, para. 2) production of Bren guns in Canada has already reached very important proportions. Even so, this is a recent development. The first arrival of 10 Canadian Brens in the United Kingdom is noted in the Corps General Report for <sup>the week ending</sup> 10 Nov

40. I note in the C.G.S. weekly summary for the week ending 30 Aug 41 (Cable DEFENSOR to CANMILITRY, GSD 1297, 2 Sep 41) that Canadian Bren deliveries for the week amounted to 243.

48. Other war material, of types not before produced in Canada, has come into production very slowly. An order for 25-pounders is understood to have been placed by the British Government with a firm in SOREL, P.Q., in 1939, before the outbreak of war; but according to press reports the first six guns were handed over only on 1 Jul 41. 3-inch mortars are in production, and I note what appears to be the first reference to an issue of them in this country in the Corps General Report for the week ending 19 Jul 41. There has as yet been no issue of Canadian 2-inch mortars; it is understood, however, that production has now begun.<sup>1</sup> 2-pounder guns are also understood to be in production in Canada, but only for use in tanks. Bofors guns and Boys rifles are in process of manufacture in Canada but it is believed that production has not yet begun.<sup>2</sup>

1 C.G.S. weekly summary for week ending 6 Sep 41 (cable DEFENSOR to CANMILITRY, GSD 1324) notes that the first five mortars have been delivered to Ordnance.

2 Discussion of the Bofors situation in a letter from C.M.H.Q. to the War Office, 9 Sep 41 (1/SUPPLY/2) indicates an expectation that the first gun will be delivered in September 1941.



49. During June 1941, press reports indicate, production of tanks, both "I" Mk. III ("Valentine") and M.3 (modified) Cruisers, began in Canada. (It would seem to be accurate to say that the greatly expanded Canadian industrial programme undertaken as a result of the reverses sustained in France and the Low Countries in the spring and early summer of 1940 began to bear fruit about midsummer of 1941.) It is understood that examples of both types may be expected in Britain within the next few weeks. Neither type, however, is being issued to the Canadian Army Tank Bde, at least for the present. As noted in Report No. 42, two battalions of this formation are receiving Mk II tanks and the third is receiving Mk IV. "Deliveries are proceeding satisfactorily in accordance with agreement" (Cable CANMILITRY to DEFENSOR, for Gen. CRERAR from Gen. McNAUGHTON, QMG 1857, 21 Aug 41).

50. The general situation in the early days of Canadian war production is well symbolized in a letter from the B.G.S. (Cdn), Cdn Corps, to the Senior Officer, C.M.H.Q., 4 Jan 41 (C.M.H.Q. file 1/RELEASE EQUIP/1, folio 84A). The reference is to 2 Cdn Div:

Advice has been received that only six 25-prs. and no 2-pr. A.Tk guns are being supplied during Jan. For a Div which is complete in personnel and practically complete in M.T., this represents a most unsatisfactory position.

Largely on the basis of her peacetime industrial plant, Canada had been able to provide in good time the M.T. needed for her Second Division; but Canada and Britain together had not been able to provide very essential elements of its armament.

51. It is a notable fact that, once Canadian production gets under way, it soon swells to very large proportions; this has been the case with both Bren guns and carriers, and doubtless will soon be the case with 25-pounders. No one can doubt that in the end Canada's industrial contribution to victory will be very significant.

52. It will be the business of the historian, however, not only to chronicle the ultimate achievement, which will certainly be great, but also to record the painful slowness (in the circumstances, the quite inevitable slowness) of the process of initiating production.



Those who write the history of Canadian participation in this struggle will deserve well of the Dominion if they succeed in impressing upon their countrymen the fundamental lesson of the developments above recorded - the lesson that the production of military equipment such as Canada and the Empire have needed so desperately in recent months can be rapidly effected in time of war only on the basis of facilities established for the purpose in time of peace.

#### GENERAL

53. In January 1941 C.M.H.Q. began the preparation of a monthly Equipment State of the Canadian Army Overseas for the information of the Minister of National Defence. This file (C.M.H.Q. file 1/MIN RETS EQUIP/1) will be a valuable historical source. The totals from the return for 31 Aug 41 are attached to the present report as Appendix "B".

54. In August of 1941 the V.C.G.S., N.D.H.Q., issued the first number of a monthly Equipment State showing equipment requirements and items on hand (both in Canada and overseas) and indicating the state of Canadian production, actual and anticipated, with respect to Army equipment. This file also (1/EQUIP STATE/2) will be most useful to the historian.

55. Major W.A.B.ANDERSON, who is closely in touch with the equipment situation generally, has kindly read this report in draft and made a number of suggestions.

C.B.S.

(C.P.Stacey), Major,  
Historical Officer, C.M.H.Q.



FIELD ARTILLERY EQUIPMENT

CANADIAN CORPS

31 Aug 41

Information from "Q" Branch (O.S.), C.M.H.Q., London.

25/18-pounder on Carriage 18-pounder Mk. IV.

1	Fd	Regt	R.C.A.	(1	Cdn	Div)	24
2	"	"	"	"	"	"	24
3	"	"	"	"	"	"	24

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Total held 72

25-pounder on Carriage 25-pounder.

4	Fd	Regt	R.C.A.	(2	Cdn	Div)	8
5	"	"	"	"	"	"	16
6	"	"	"	"	"	"	16
12	"	"	"	3	"	"	12
14	"	"	"	"	"	"	12

8	A	Fd	Regt	R.C.A.	(Corps	24
11	"	"	"	"	Troops)	24

---

Total held 112

75 mm. (British).

4	Fd	Regt	R.C.A.	(2	Cdn	Div)	12
5	"	"	"	"	"	"	4
6	"	"	"	"	"	"	4

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Total held 20



EQUIPMENT STATE, CANADIAN ARMY OVERSEAS

31 Aug 41

Totals given below include both Units of Cdn Corps and Units under C.M.H.Q. For breakdown, see C.M.H.Q. file 1/MIN RETS EQUIP/1.

	<u>Establishment</u>	<u>On Hand</u>	<u>Deficiencies</u>
Guns 25 pdr. G/H	256	187	69
75 mm.	---	20	---
5.5-inch G/H	4	---	4
6-inch How.	22	16	6
2 pdr A.Tk.	198	96	102
40 mm. Lt. A.A.	137	20	117
Machine Guns, Medium, Vickers	238	245	Surplus
Machine Guns, Light, Bren	2961	2241	720
Machine Guns, Light, Lewis	6	411	Surplus
A.Tk Rifles, Boys	1463	612	851
Mortars, 3-inch	166	147	19
Mortars, 2-inch	466	234	232
Sub-Machine Guns, Thompson	2078	1914	164
Universal Carriers	770	528	242
Carriers T.C.P. (Tracked Car, personnel)	48	32	16
A.C.V. (Armoured Command Vehicle) 1 (1 Cdn Army Tank Bde)	1	---	1
Cars, Scout (Tank Bde only)	37	7	30
Tanks, Cruiser	4	4	---
Tanks, Infantry, Close Support	18	1	17
Tanks, Infantry	174	44	130
Tanks, Light	2	---	2

It will be noted that the above totals represent the situation at the end of two years of war.