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Situation of the Canadian Military Forces
in the United Kingdom, Winter, 1941 - 42 : IV

Progress in Equipment.



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1. A further report is presented. This deals with the equipment problem of the Canadian Army Overseas during the period since 19 Sep 41, the date of Report No. 46, which attempted to provide a brief survey of this important question as it had presented itself since the outbreak of war.
2. Although the successful organization of production in Britain, Canada and the United States has greatly simplified this problem in many of its aspects, and the general state of equipment of the formations comprising Canadian Corps is very much more satisfactory than it was a year ago, there are still certain serious deficiencies. At the same time the steady increase of the Canadian force in this country (see Reports Nos. 45 and 59), and in particular the arrival of Canadian armoured formations, has raised new difficulties which are still in process of solution.
3. This report should be read in conjunction with No. 46, which may be said to provide an introduction to the whole subject.

EQUIPMENT OF INCOMING FORMATIONS

4. The period since Report No. 46 was compiled has witnessed the completion in the United Kingdom of 3 Cdn Div, followed by the arrival of 5 Cdn (Arm'd) Div (see Reports Nos. 54 and 59). It was noted in Report No. 46 that 3 Cdn Div was being equipped much more rapidly than had been the case with 2 Cdn Div, and subsequent events further bore out this generalization. The two Field Regiments of the division in this country in September were already complete with 25-pounder gun-howitzers,

and following the delayed arrival of the third (13 Cdn Fd Regt, which disembarked from T.C. 14A on 13 Nov 41) it too was immediately supplied, receiving its 24 guns during the week ending 22 Nov (General Report for Cdn Corps for the week mentioned: C.M.H.Q. file 4/PROGRESS/2). During the week ending 27 Sep 41, 3 Cdn Div received 39 A.Tk rifles, withdrawn from 1 and 2 Cdn Divs; and the following week it received 64 more from outside sources. During the same period carriers and Bren guns from Canada were being issued in large numbers to the Canadian formations (3 Cdn Div received 43 Canadian carriers in the week ending 27 Sep 41, 48 in the week ending 11 Oct 41, and 63 in the week ending 28 Nov 41). Mortars, both 2-inch and 3-inch, were also being issued in useful numbers to 3 Cdn Div and other formations; and 3 Cdn Div received 12 2-pdr A.Tk guns in the week ending 15 Nov 41 and 12 more in the week ending 3 Jan 42.

5. 5 Cdn (Armd) Div has also been rapidly fitted out with a very large proportion of its equipment. The War Office State of Equipment... as at 14th January, 1942 of Formations, Groups and Army Units including Allied Contingents in U.K., Iceland (C) and the Faroe Islands shows the division as complete in 25-pounders (24) and 2-pdr A.Tk guns (56), and complete or virtually complete in pistols, Bren guns, and Thompson guns. There are deficiencies in A.Tk rifles (87 held as against an establishment of 426), and 2-inch mortars (9 held as against an establishment of 40). The question of armoured fighting vehicles is dealt with separately below.

6. It will be noted that, in general, the field artillery problem has been solved; all field regiments in the Canadian Army Overseas now possess their full complement of 25-pounders (this including 7 Cdn A Fd Regt, which arrived in the United Kingdom only in November, 1941) and there are no longer any 75-mm. guns on charge. (It seems safe to presume however, that adequate reserves are not yet available.)

7. Other deficiencies noted in Report No. 46 persist, though in a somewhat less aggravated form. There is still a very serious shortage of A.Tk rifles (e.g., on 31 Jan 42, as against an establishment of 421, 1 Cdn Div had 216, 2 Cdn Div 222, and 3 Cdn Div 179.) Although 2-pdr A.Tk guns have become available in somewhat larger numbers, and each Canadian infantry division now in this country now has 36, the deficiency is still serious, for a change in establishment has increased the divisional allotment from 48 guns to 64 (an interesting development, brought about by Interim War Establishment Cdn. II 1940/7/1, notified in G.O. 214/41: advance copies of this establishment circulated by C.M.H.Q. 7 Oct 41). There is still a considerable shortage in 2-inch mortars (1 and 2 Cdn Divs having 126 each as against an establishment of 162, and 3 Cdn Div having only 41). (All figures in this paragraph derive from War Office States of Equipment for 31 Jan 42.)

8. The general state of equipment in the Canadian Army Overseas is presented in the digest at Appendix "A". Certain special topics are dealt with below.

ARTILLERY EQUIPMENTS

9. The general situation with respect to field artillery is dealt with above, in para. 6.

10. MEDIUM ARTILLERY. Attention is directed to the account of the medium artillery situation given in Report No. 46, paras. 26-30. The anticipation there expressed, that it would soon be possible to organize the whole of 5 Cdn Med Regt and to arm it with the 5.5-inch gun-howitzer, has since been justified; this unit received twelve 5.5's in the week ending 4 Oct 41, and four more, completing its establishment, the following week (General Report Cdn Corps for the weeks mentioned). 1 Cdn Med Regt, however, has not yet been re-armed with this weapon; it retains the obsolescent 6-inch howitzers with which it has been armed since 1939.

11. The prospect of obtaining further 5.5 equipments however, has been sufficiently encouraging to lead to the authorization of two additional Medium Regiments (3 and 4 Cdn Med Regts) which are now mobilizing in Canada with a view to their despatch to this country in the spring (cable CSD 198, DEFENSOR to CANMILITRY, 29 Jan 42).

12. ANTI-TANK ARTILLERY. The continuing difficulties with respect to the supply of 2-pdr A.Tk guns have already been noted (above, para. 7).

13. It is intended to re-arm all A.Tk units in Cdn Corps with the new and powerful 6-pounder gun when this becomes available (cable CMC 2119 CANMILITRY to DEFENSOR 29 Jan 42). War Office State of Equipment, 31 Jan 42, shows that 1 Cdn A.Tk Regt (1 Cdn Div) then possessed, in addition to its 36 2-pdrs, 12 6-pdrs Mk. I and II, while 2 Cdn A.Tk Regt (2 Cdn Div) possessed 3 6-pdrs (static). It appears also that 3 Cdn A.Tk Regt (3 Cdn Div) possessed, in addition to the 36 2-pdrs already mentioned, five 2-pdrs mounted on carriers. All these extra provisions of armament are presumably for experimental purposes.

14. ANTI-AIRCRAFT ARTILLERY. With respect to the Bofors 40-mm. Light A.A. Gun, improvement in the position has continued, but the total deficiencies are still very large. The total holdings of Cdn A.A. units on 31 Jan 42 were 58 of these guns (as compared with 20 in September last : see Report No. 46, para. 32). As a result of this situation, 2 Cdn Lt. A.A. Regt was enabled to take its place in the Order of Battle of Cdn Corps (in 1 Cdn Div) as of 8 Feb 42. Whether the programme for adding further regiments to the Order of Battle, as desired by General McNAUGHTON (see Report No. 57) can proceed on schedule, will depend on whether guns in the required numbers continue to become available.

15. The one Canadian Heavy A.A. unit in this country (2 Cdn Hy A.A. Regt) is now employed on A.D.G.B., using guns provided by A.A. Command. Only two 3.7-inch Heavy A.A. Guns have been provided for this unit in its own right. #

Two more, making a total of four, came to hand during January, 1942 : C.M.H.Q. file 1/MIN RETS EQUIP/1.

OTHER WEAPONS

16. AUTOMATIC WEAPONS. In the matter of Bren Light Machine Guns, it is of interest to note that the Canadian Formations now in this country are considerably better off than British formations. War Office State of Equipment, 31 Jan 42, indicates that all the Canadian infantry divisions are above establishment in this particular, 1 Cdn Div, for example, holding 870 Brens as against an establishment of 843. Practically all British divisions in this country have material deficiencies, and not one is at full establishment (though 54 Div has 724 L.M.G.'s - some of which may possibly be Lewises - against an establishment of 725). Ten British infantry divisions on the higher establishment are on the average only 87.1% complete in L.M.G.'s, and nine on the lower establishment are only 85.6% complete.

17. These facts are of special interest in that they reflect the advantage which has accrued to Canada through the fact that a contract for the manufacture of Bren guns in the Dominion was signed as early as 31 Mar 38. Had similar measures been taken for the provision of other equipment, many of the difficulties of the past two years might have been obviated.

18. In Thompson S.M.G.'s the Canadian formations are almost complete. On 31 Jan 42, 3 Cdn Div had 546 against an establishment of 598, and the more senior infantry divisions were much closer to completion.

19. RIFLES. In the Canadian Army overseas as a whole there is, it will be noted from Appendix "A", a considerable shortage of rifles. This shortage centres mainly in the Reinforcement Units, whose rifle establishment has lately been materially increased. The field formations are in general complete, though there are shortages in both 5 Cdn (Armd) Div and 1 Cdn Army Tk Bde.

20. MORTARS. On the shortage of 2-inch mortars, see above, para. 7. All the Canadian infantry divisions in this country are complete in 3-inch mortars.

21. On Boys Anti-Tank Rifles, see above, para. 7.

ARMoured VEHICLES

22. CARRIERS. In the matter of carriers, as in that of Bren guns, the position of the Canadian formations in this country is considerably superior to that of British formations. Thus the ten higher-establishment British divisions are only 83%, and the nine lower-establishment British divisions only 72.2% complete in Universal Bren carriers, whereas 1 Cdn Div has 279, 3 Cdn Div has 278, and 3 Cdn Div has 273 as against an establishment of 195. The explanation of the very high Canadian figures is that Canada is using Bren carriers in lieu of Universal Mortar carriers and O.P. (Observation Post) carriers, of which the divisional establishment is 63 and 27 respectively. 1 Cdn Div is credited at the moment with only 6 Univ. Mortar and 6 O.P. carriers proper, and the other two Canadian infantry divisions have even fewer. On the other hand, British divisions with very few exceptions are in a similar position, and are without the Canadian surplus of Bren carriers. (All figures from W.O. State of Equipment, 31 Jan 42)

23. 1 Cdn Army Tank Brigade is complete in carriers (33 T.P.C. Loyd - "Tracked Personnel Carriers" - and 13 S.B.C. - "Slave Battery Carriers"). The function of the S.B.C. is to carry large batteries which serve to start tank-engines when cold.

24. 5 Cdn (Armd) Div still has few carriers. The divisional establishment is 90 Universal Scout, 14 Universal Bren, and 15 Universal Mortar carriers, in addition to 27 S.B.C. and 9 Armoured O.P. At 31 Jan 42 the Division's holdings were limited to 15 S.B.Cs.

25. ARMoured CARS, ETC. In the matter of Armoured Cars and related vehicles the position of Canadian formations remains very unsatisfactory. The establishment of a divisional reconnaissance battalion calls for 45 reconnaissance cars (see Report No. 45) but 1, 2 and 3 Cdn Divs possess only 17, 13 and 14 respectively, and these few, moreover, are the inferior "Beaverette" (Report No. 46, para. 41). (W.O. State of Equipment, 31 Jan 42.)

26. In Scout Cars 1 Cdn Army Tk Bde is complete, with 37. 5 Cdn (Armd) Div has 30 as against an establishment of 187. In Armoured Cars, 5 Cdn (Armd) Div has 8 (establishment, 60); it possesses, in addition, 11 "Ironsides", which are rated as "Improvised A.F.Vs."

27. Information in paras. 23, 24 and 26, above, derives from War Office State of Equipment, 7 Feb 42 (special R.A.C. Statements).

28. INFANTRY TANKS. Reference to Report No. 42 will indicate that on its arrival in this country 1 Cdn Army Tk Bde began to be equipped as follows: Two Bns with "Matilda" tanks (formerly known as Mk. II), and one Bn (11 Cdn Army Tk Bn) (Ont R.) with the new "Churchill" tanks (formerly known as Mk. IV). The Churchill tank apparently did not impress British officers, and many difficulties were (and, one gathers, still are) encountered in its use. Brigadier (now Major-General) WORTHINGTON who then commanded 1 Cdn Army Tk Bde, nevertheless had faith in this heavy and powerful weapon, and asked that his whole brigade should be equipped with it. On 11 Nov 41 he told the writer that the War Office had agreed to this, and the replacement of Matildas by Churchills began shortly afterwards.

29. As of 7 Feb 42, 1 Cdn Army Tk Bde (now commanded by Brigadier R.A. WYMAN) was almost completely equipped. It held four Cruiser tanks ("Covenanter" type, of an early mark considered unfit for the Middle East) for its Headquarters Squadron, and 160 Churchills, in addition to the scout cars and carriers mentioned above (paras. 23 and 26).#

30. The establishment of an Army Tank Brigade is 174 "I" tanks.

31. CRUISER TANKS. 5 Cdn (Armd) Div, which arrived in this country roughly five months later than 1 Cdn Army Tk Bde, is much less completely equipped. It is ultimately to be equipped with the Canadian "Ram" cruiser tank, manufactured in MONTREAL. This tank, combining the hull, tracks and propulsion of the American M.3 with fighting equipment of British type, should be very successful. No Rams, however, have as yet

Figure for Churchill holdings from W.O. State of Equipment (R.A.C.), 7 Feb 42. General Report Cdn Corps week ending 7 Feb 42 says 157 Churchills held. These figures seem to invalidate those of CMHQ Equipment State (see Appendix "A").

arrived in Britain; the first shipment is on the ocean at the moment of writing (19 Feb 42).

32. Pending the availability of Rams, tanks of American type have been provided by the War Office. As of 7 Feb 42, 5 Cdn (Armd) Div held 40 "General Lee" Cruiser tanks and five "General Stuart" Light Cruiser tanks. No other formation in this country is at present using these tanks. They should be an excellent introduction to the Ram.

33. The establishment of an Armoured Division is 340 Cruiser tanks. Cable GSD 502, DEFENSOR to CANMILITRY, 11 Feb 42, stated that 40 Ram I tanks (2-pounder gun) and 300 Ram II tanks (6-pounder gun) would be shipped to this country from first production to equip 5 Cdn (Armd) Div. The first 80 Ram II's will be shipped without guns and gun mounts; these will be shipped later for installation in the United Kingdom.

34. TANK PRODUCTION. It may not be irrelevant to record here some recent figures concerning production of tanks in Britain. The War Office State of Equipment (R.A.C. Statements) as of 21 Jan 42 notes that 45 Cruiser tanks and 95 Infantry tanks were "received" during the period 15 Jan 42 to 21 Jan 42. The same document for 7 Feb 42 lists as "received" during the period 1 Feb 42 to 7 Feb 42 "49 Cruiser Tanks and 137 Infantry Tanks". No explanation of these figures is appended; but it seems likely that they refer only to tanks received by the British Army and exclude production for Russia. They must however include American imports (if any) for the periods mentioned. It seems highly probable, however, that there were no such actual imports, for so far as the writer is aware Infantry tanks are not being sent by the United States to this country at the present time, and the proportion between "I" and Cruiser tanks received appears to be in keeping with the trend of British production. (At the present time three British Armoured Divisions in this country - 6, 8, and 11 Armd Divs - are still equipped with "I" tanks in lieu of Cruisers.)

35. Whatever the exact interpretation of these figures, it seems clear that tank production is in an encouraging state. Unfortunately earlier returns, which would make possible an interesting comparison, are not available at C.M.H.Q.

MECHANICAL TRANSPORT

36. At least a word must be said on the situation with respect to mechanical transport. As described by the Mechanization and Artillery Section of C.M.H.Q. (Major H.J. LAKE, R.C.A., D.A.Q.M.G.) it is broadly this. So far as standard vehicles are concerned, the Canadian Army Overseas is fairly well up to establishment; but there are still considerable deficiencies in technical vehicles. He considers that over all the vehicle state must be in the vicinity of 75% of establishment.

37. A few representative figures may be extracted in this connection from the Inventory of Vehicles - Canadian Army in U.K. as at 31 Jan 42, compiled by M. & A., C.M.H.Q. The inventory as a whole is forwarded monthly to E.D.H.Q. and should be available for historical purposes.

31 Jan 42

TYPE OF VEHICLE	Total Establishment, All Troops in U.K.	Total in Possession
Station Wagons	1043	759
Trucks, 15-Cwt.		
A.A. & A.T.	180	151
A.T. Tractor	288	132
G.S.	2831	1944
Lorries, 30-Cwt.		
Ambulance	181	188
G.S.	1432	2498
Winch	183	165
Lorries, 3-Ton 134"		
G.S.	3480	2187
Lorries, 3-Ton 6x4		
Breakdown	182	85
Machinery Type "A"	18	10
Tractors		
F.A.	518	498
Light A.A.	276	95
Medium Arty	99	46
Trailers		
Compressor	80	33
Water Tank	226	179

58. The above figures, extracted from the Inventory almost at random, naturally do not tell the whole story. A certain number of vehicles are "held not issued" - e.g., 164 station wagons, 88 3-Ton 134" G.S. lorries, 153 F.A. tractors, etc.; and these should be added to the "Total in possession" to complete the picture. This sample, however, may serve to illustrate the general nature of the present situation.

FURTHER NOTES ON CANADIAN PRODUCTION

39. In general, the "notes on Canadian production" in Report No. 46 (paras. 44-52) still apply. Warlike stores of Canadian manufacture continue, however, to come to hand in increasing variety and numbers, and presumably the next few months will witness a further acceleration as new plants come into production and those already in production move towards full capacity.

40. Those types of equipment to which Canada's peacetime industrial plant was directly applicable, or on which an early start was made, are now being produced on a very large scale. Examination of the Canadian Equipment Statement, 30th November, 1941, prepared at N.D.H.Q., indicates that the anticipated deliveries of Bren guns for December, 1941, amounted to 2200, of which 1281 were for Canada; and that deliveries of mechanical transport vehicles generally were expected to amount to 12245, of which 1772 would be for Canada. These figures are impressive and important.

41. In some other categories, where production was undertaken at later dates, it is just beginning to attain respectable proportions. Thus anticipated production of 25-pounders in December was 32; of 3-inch mortars 100, and of 2-inch mortars 100. For the Bofors 40-mm. Lt. A.A. gun it was only 10.

42. While the estimated December production of Universal Carriers stood at 500 (a figure not included in that already given for M.T. vehicles), Armoured Cars, Reconnaissance Cars, and Scout Cars were just at the beginning of production: the estimated figures respectively being 25, 30 and 25 for the month.

43. Estimated rifle production for December was 6370, of which 1666 rifles would be for Canada; but it was anticipated that cumulative production to the end of 1942 would be 212870. (It seems possible that in this case the figure of 6370 may represent total production down to and including December, 1941.)

44. Production of 6-pounder A.Tk guns was expected to begin in January, 1942, and of 3.7-inch Hy A.A. guns (mobile) in March. No A.Tk Rifles were expected until February, though it was hoped that 12096 would be produced by the end of 1942.

45. TANK PRODUCTION. Tank production is a matter of special interest. It is clear that the production of the first Infantry (Valentine) and Cruiser (Ram) tanks in MONTREAL in May and June, 1941, as reported in the press, was far from being the beginning of large-scale production. The estimated total for December, 1941, a figure which clearly must comprehend all production down to the end of the year, is 105 "I" tanks and 38 Cruisers. It is expected, however, that by the end of 1942 Canada will have produced 1065 Valentines and 1155 Rams.

46. These figures make it clear that while the Canadian programme is still in its early stages, the Dominion will be making a most important industrial contribution to the Allied cause, not in a few categories of production but in many, within a few months. It is also clear, however, that the point made in Report No. 46 remains a sound one: only by the development of facilities in time of peace can military production be rapidly achieved in time of war. After two and a half years of hostilities, the Canadian Army Overseas still lacks important items of armament and equipment; and while it is very much better equipped than it was a year ago, it seems likely that in the event of its going into action in the spring of 1942 it will do so still incomplete in several categories.

CORRECTION

47. Major C.D. KINGSMILL (A.G.1, C.M.H.Q.), who formerly served with 1 Cdn Med Regt, tells the writer that the statement in Report No. 46 (para. 6) to the effect that this unit's 6-inch howitzers were obtained after arrival in Britain, is inaccurate. They were brought from Canada.

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EQUIPMENT STATE, CANADIAN ARMY OVERSEAS

31 Jan 42

Totals 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>Establish- ment</u>	<u>In Posses- sion</u>	<u>Deficiencies</u>
Guns 5.5-inch G/H	32	16	16
6-inch How	8	16	Surplus
25-pdr. G/H	344	315	29
2-pdr. A.Tk.	324	188	136
3.7-inch Hy A.A.	28	4	24
40-mm. Lt A.A.	280	58	222
Pistols	16527	17313	Surplus
Rifles	99360	77204	16156
M.G., Med (Vickers)	234	268	Surplus
M.G., Light (Bren)	4518	5026	Surplus
M.G., Light (Lewis)	18	281	Surplus
Sub Machine Guns (Thompson)	3465	3012	453
A.Tk Rifles (Boys)	2374	935	1439
Mortars, 2-inch	632	340	292
3-inch	213	241	Surplus
Pistols, Signal	2323	1835	488
Carriers, Universal	1023	1255	Surplus
Armd O.P.	132	9	123
T.P.C.	81	33	48
Light Reconnaissance Cars	151	60	91
Scout Cars	231	64	167
Armoured Cars	60	25	35
Armoured Command Vehicles	10	6	4
Tanks, Cruiser	308 x	4	304
Infantry	156	126 x	30
Infantry, Close Supt	54	2	52
General Lee	---	43	Surplus
General Stuart	---	5	Surplus
M.2.-A.4	---	4	Surplus

x - But cf. figures from other sources in paras. 29, 33, above.