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REPORT NO. 76
HISTORICAL SECTION(G.S.)
ARMY HEADQUARTERS

1 Feb 58

THE EQUIPMENT OF CANADA'S ARMED FORCES
DURING THE SECOND WORLD WAR: PROBLEMS
IN PROCUREMENT AND ASSIGNMENT

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The Equipment of Canada's Armed Forces
During the Second World War: Problems
In Procurement and Assignment

1. A really complete study of the equipment of Canada's Armed Forces during the Second World War is not possible from the documentary material now available and the present Report merely treats a number of the problems in a general fashion. It does, however, place greater emphasis on certain of those encountered by the Canadian Army. Unlike the United Kingdom and the United States, Canada contracted for its munitions through a single agency, thereby eliminating open competition between government departments for the products of industry. Despite the diversity of Canadian production, however, it was always necessary to obtain many items from the United Kingdom and the United States,* a phase of the story that has not been covered by J. de N. Kennedy in his two-volume History of The Department of Munitions and Supply (Ottawa, 1950). Then again, there was the all important question of assigning available munitions to the ultimate "user", a basically military function that more and more came to depend on the current strategical situation.

2. Above all, it must be borne in mind that the Government of Canada was accorded no share of any importance in the higher direction of the Second World War. Although it did not like this situation, there was nothing to be done in practice beyond voicing certain very mild protests which

*British Commonwealth supplies of munitions from all sources during the period of the Second World War have been computed on a percentage basis as follows:

| | 1939- 1940 | 1941 | 1942 | 1943 | 1944 | 1945 | Total |
|---------------------|---------------|------|------|------|------|------|-------|
| United Kingdom | 90.7 | 81.8 | 72.6 | 62.4 | 61.2 | 66.1 | 69.5 |
| Canada | 2.6 | 5.2 | 8.6 | 8.8 | 8.9 | 10.0 | 7.9 |
| Eastern Group | 1.1 | 1.5 | 1.9 | 1.9 | 1.2 | 1.7 | 1.6 |
| Purchases in U.S.A. | 5.6 | 9.1 | 4.7 | 2.4 | 1.5 | 1.2 | 3.7 |
| U.S. Lend-Lease | - | 2.4 | 12.2 | 24.5 | 27.2 | 21.0 | 17.3 |

The production of munitions in the Eastern Group was mainly concentrated in Australia, New Zealand, South Africa and India (1).

were accompanied by assurances that Canada had no desire to upset the existing arrangements. This, despite the fact that, alone of the North American nations, she had gone to war in 1939 and faced the task of quickly expanding her tiny naval, military and air forces, which were trained and equipped on the British model but at the expense of the Canadian taxpayer.

3. Initially, of course, military supplies were scarce in all democratic countries. Within a relatively short time, however, many items, such as boots and uniforms, became relatively abundant and the planners could limit their worries to the procurement of complicated technical equipment and stores made from raw materials which themselves were becoming scarce.

4. Since the term controlled stores will appear frequently in this report, chiefly as applied to military items, it would be well to define it, employing a definition issued by the War Office in 1943:

Stores the production of which in the quantities required by the Army presents difficulties, allocation being controlled by the War Office:

- (a) All ammunition and explosives.
- (b) Small arms and mortars.
- (c) Most artillery equipments.
- (d) Range-finders, telescopes, directors, etc.
- (e) Engineer bridging equipment.
- (f) Compasses, surveying instruments, stereoscopes, etc.
- (g) Wireless sets and most other signal equipment (2).

The issue of such controlled stores was a General Staff responsibility, since one of the key factors governing allocation was the question of whether troops were, or were likely to be, in contact with the enemy.

5. The American attitude was to be somewhat different, however: as a result of the shortages that became acute after Pearl Harbor all items of finished military stores became subject to allocation by the Munitions Assignments Board in Washington and certain maintenance spares were included in such pooling arrangements, in contrast to the British view that these must necessarily be provided on an agreed scale to maintain the original equipments.

6. What will be meant by the terms procurement and assignment also should be set forth clearly:

Procurement is the action which is necessary to establish availability and is therefore co-related with the setting up and scheduling of productive capacity and the furnishing of raw materials. Procurement, in the first instance, must be worked out on a long range planning basis in order that the productive capacity of ... factories may be harnessed to the best advantage to fill the requirements of the ... armed forces, and in order that available raw materials may be allocated and distributed to meet manufacturing schedules.

Assignment is the procedure under which finished military stores are proportioned, on an operational priority basis, to the claimant nations.... Since assignment is essentially based primarily on operational and strategical considerations, it follows that even though finished military stores have been produced due to the procurement action of a certain country, they may actually be assigned... to another country if a superior operational need can be established. In such cases, the country to which the stores are assigned is usually requested to immediately take procurement action to re-establish availability so that the other claim may later be reimbursed (3).

7. The expansion of the Royal Canadian Navy was relatively orderly and at all times its requirements bore a definite relationship to the number of ships in commission or building. What almost might be termed duplicate orders for vessels and naval stores were provided Canadian industry as a result of contracts placed for the British Government. According to the terms of the British Commonwealth Air Training Plan, which was administered by Canada, the Air Ministry assumed responsibility for equipping and maintaining all R.C.A.F. personnel after they proceeded overseas, for service both in R.A.F. squadrons and the so-called Article 15 Squadrons (although after 1 Apr 43 the Canadian Government footed the financial bill for such R.C.A.F. units and personnel). In addition to providing for certain training and home defence requirements, the Canadian aircraft industry was able to produce, under contract, certain types of aircraft and spares for the British Government and U.S. Navy. On the other hand, eventually Canada produced greater quantities of certain military stores and equipment, including such items common to the Navy and Air Force as motor vehicles, small arms and ammunition, than were required for her own needs and the surplus was made available to others of the United Nations.

8. From the production standpoint it must not be forgotten that Canada, alone among the members of the British Commonwealth, used dollar currency and was developing, slowly but surely by 1939, the mass production-industrial techniques of her great neighbour to the south. Such was her dependence on the American economy, however, that Canadian production could not get very far without importing machinery, spare parts and sub-assemblies or components. This dependence increased following the outbreak of war, as the Canadian economy further concentrated on manufacturing munitions for the United Kingdom. Canada began to import more capital

equipment, raw materials and components from the United States to meet these orders but no longer found it possible to offset, by the conversion of sterling sales in the United Kingdom into American currency, the natural dollar deficit created by the traditional North Atlantic triangular trade.

9. To assist the reader in finding his way through a rather long and complicated narrative, and to facilitate the use of the report for quick reference, the following brief summary of it has been prepared. The references in brackets are to the relevant paragraphs of the report. A.H.Q. Report No. 48 ("Canada and the Higher Direction of the Second World War") will be found useful in connection with the present report.

SUMMARY OF THE REPORT

(i) Initial Problems

10. In 1939 Canada possessed no munitions industry to speak of and the source of supply for its Armed Forces was still the United Kingdom. As events were soon to demonstrate, such was her dependence on the American economy for capital equipment, raw materials and components that conversion of existing factories to munitions production and the provision of new war plants was to be a slow business. Apart from the possible danger to British industry of establishing post-war competitors in Canada, there seemed little point in the United Kingdom encouraging the creation of a long term production programme from scratch for an estimated conflict of only three years duration. Except for ammunition, explosives and particularly aircraft, there was a widespread feeling that British industry could provide the munitions required by the armed forces of the whole Commonwealth; therefore, North America was considered a marginal source, for making good any production lost by the enemy bombing of British factories. Moreover, the British Government wished to limit its expenditure of dollars (see paras 25-30 and 32-35).

11. Following hard upon its decision to declare war upon Germany, the Canadian Parliament authorized a Department of Munitions and Supply to handle all contracts for the Department of National Defence, although for the moment only a lesser War Supply Board was established. A naval shipbuilding programme was initiated, based on the capacity of Canadian shipyards rather than operational needs and on the understanding that the Admiralty would make available all necessary equipment and fittings so that time would not have to be spent in developing manufacturing facilities in Canada. R.C.A.F. requirements came to centre largely around the British Commonwealth Air Training Plan (see paras 31 and 36). Clothing, general stores and mechanical transport were immediate and continuing requirements for the three Services but the 1st Canadian Division was to have its equipment completed following arrival in the United Kingdom. To offset the fact that certain munitions would always have to be accepted from British stocks, the Canadian Government hoped that Canada might supply additional quantities of items it could produce for British needs, to an equivalent money value. But such an arrangement did not prove possible until the early summer of 1940, by which time the British had been forced to the realization that continued resistance, and ultimate victory, would be possible only with munitions from North America (see paras 43-51).

(ii) The Critical Summer of 1940

12. Although a proper Department of Munitions and Supply had replaced the War Supply Board only on 9 Apr 40, no time was lost investigating the industrial capacity of both Canada and the United States for increased war production. Representatives were sent to London to deal with officials of the Ministry of Supply and the new Ministry of Aircraft Production, but until the spring of 1942 Canada House continued to deal directly with the Admiralty for naval requirements. The office established in Washington by the Department of

Munitions and Supply was in a more favoured position, being free to deal direct with American industry (see paras 37-42). Although all British orders were to be placed in Canada through the Department of Munitions and Supply, it was understood that the British would provide technical and inspection personnel to interpret specifications, assist firms with production problems and the subsequent task of inspection (see paras 65-68 and 72).

13. During a visit to Ottawa in August, the Secretary of the U.S. Treasury told Prime Minister King that he was doing everything possible to meet Canadian and British requirements from the United States. He suggested that the best channel was through Mr Arthur B. Purvis of the British Purchasing Commission in New York and the Washington representatives of the Department of Munitions and Supply, rather than through officers of the Canadian Armed Forces (see para 69). On 27 Aug the Cabinet War Committee agreed to this suggestion. On 5 Sep the War Committee rejected a British suggestion that all Commonwealth requirements for controlled stores, which could not be produced internally, should be tabled in London and that a consolidated list of requirements from American industry be forwarded to the British Purchasing Commission for procurement. While recognizing the need for Commonwealth co-operation, the Canadian reply stated that existing arrangements were satisfactory to Canada and that the needs of the other members would be taken into account when Canadian orders were being placed in the United States (see paras 70-71). In this connection it should be stressed that American officials held Mr Purvis in very high regard and trusted his judgement implicitly (see para 63). Indeed, three days after his re-election President Roosevelt announced a "rule of thumb" policy, which had been suggested by Mr Purvis, for the division of American arms output - roughly 50 percent for British and Canadian forces (see para 78).

(iii) Lend-Lease and Mutual Aid

14. In anticipation of the implementation of the Roosevelt-inspired Lend-Lease Bill (11 Mar 41) Mr Purvis was appointed chairman of a British Supply Council in North America to handle policy matters for the several British missions in Washington. In Ottawa it was hoped that the appointment of Hon. C.D. Howe to membership on this Council would result in British and Canadian buying in the United States being co-ordinated (see para 81).

15. Although Canada did not want Lend-Lease aid, feeling that it should be reserved for beleaguered countries and being worried about possible curtailments of its own national sovereignty, some palliative was necessary because of the rapidity with which her supply of U.S. dollars was being drained by an increasingly unbalanced trade with the United States. An answer was soon devised by Prime Minister King and President Roosevelt. According to their informal Hyde Park Declaration of 20 Apr 41, "each country should provide the other with the defence articles which it is best able to produce, and, above all, produce quickly, and ... production programs should be co-ordinated to this end" (see para 94). It was agreed that Canada should supply the United States with strategic raw materials and certain other items vital to the

American economy, and that British-type munitions not favoured by the U.S. Army and Navy should be produced in Canada, purchased by the American Government and then handed over to Britain under Lend-Lease. On 13 May War Industries Limited was incorporated as a crown company to handle such transactions. It did not prove possible, however, to integrate North American resources and facilities completely. Canadian production was geared to British-type munitions and there was a limit to the extent to which it could be adapted to American schedules. Moreover, the larger American industrial potential was better fitted to produce munitions which rapidly became obsolete and required both large numbers of skilled workers and specialized machine tools (see para 98).

(iv) The Munitions Assignment Boards

16. Pearl Harbor brought drastic changes. The United States now required far greater quantities of munitions for its own Armed Forces while, at the same time, the needs of the British Commonwealth were intensified by the entry of Japan into the war. During 1941 the prevailing view in Washington had been that American munitions should be allocated entirely by Americans, but during the "ARCADIA" Conference it was decided to create Anglo-American Munitions Assignment Boards in Washington and London, subordinate to the Combined Chiefs of Staff. In theory, the entire production of Great Britain and the United States was to be pooled and divided among all the United Nations in accordance with strategic needs: American production and the requirements of that Group of Nations would be handled by a Combined Munitions Assignments Board in Washington while a London Munitions Assignment Board allocated British production and the bulk assignment received from the C.M.A.B. to the various claimants of the British Group of Nations. Russia continued as a special case, her requirements being handled under the terms of the Moscow Protocol of 1 Oct 41 and succeeding agreements (see paras 99-114).

17. Despite her increasing industrial potential and somewhat special position as a "middle power", Canada was excluded initially from all the Combined organizations. A telegram of 18 Feb 42, from the Secretary of State for Dominion Affairs, suggested that Canada should associate herself with the British Group of Nations and pool her production in London. Canadian requirements should be decided in London by direct consultation between British and Canadian representatives: the latter would help compile the bulk demands to be submitted by the British to the Munitions Assignments Board in Washington. There was no thought, however, of extending to Canada actual membership on the London Munitions Assignment Board.

18. Acting on what subsequently proved to be unsound advice from Brigadier-General Henry S. Aurand, Chairman of the Munitions Assignments Committee (Ground), the Canadian Government decided late in March to request full membership on the Combined Munitions Assignments Board in return for pooling its production in Washington. The British Government subsequently agreed to support this request, provided that the requirements of the Canadian Army Overseas were excluded and handled by the London Munitions Assignment Board, which would include these

requirements from North American production in its own bulk bid on Washington. During Prime Minister King's visit to Washington, to attend a meeting of the Pacific War Council on 15 Apr, he obtained President Roosevelt's verbal acquiescence in full Canadian membership on the Combined Munitions Assignments Board (see paras 115-131).

19. But the Chairman of the Combined Munitions Assignments Board, Mr Harry Hopkins, was personally opposed to extending membership to Canada or any other nation. Subsequently, a compromise sponsored by Lieutenant-General G.N. Macready of the British Army Staff - that a Canadian representative should attend all meetings but have a voice only when Canadian production was being discussed - was found acceptable by Mr Hopkins. But, although it was generally agreed in Washington that the Canadian member would have to attend all meetings in practice, since every allocation would bear some relationship to Canadian production, this offer of limited membership was rejected by the Canadian Government (see paras 134-143). Instead, the Cabinet War Committee directed that efforts should be made to improve the existing informal arrangements, which permitted Canadian officers to appear before the Munitions Assignments Committees and their sub-committees. Early in 1943 the procedure whereby Canadian requirements had to be submitted through the British members of these was modified: Canadian representatives might submit bids and argue their own cases, provided that informal liaison was maintained. The accepted procedure was to lobby before a meeting and discover whether the several members would support bids in which Canada was interested (see paras 148-156).

(v) Assignment of Canadian Production

20. Even after Canadian industry actually began to produce munitions in sizable amounts the monthly total was considerably less than required to meet contracts. Therefore, early in 1942 an ad hoc committee began meeting in Ottawa to allocate current Canadian production between Canadian, British and War Supplies Limited orders. Initially it was considered that this Joint M.G.O., British Army Delegation and D.M. & S. Committee on Production and Allocation Problems would act only until Munitions Assignment Boards were functioning in London and Washington. But, as a result of Canada's failure to secure full membership on the Combined Munitions Assignments Board, a proper Canadian Munitions Assignments Committee (Army) emerged during that autumn, with Canadian, British and American voting members (see paras 157-161).

21. In the minds of service officers, the glaring fault of the Mutual Aid Board established in 1943 to distribute assistance to Canada's allies was that it was a civilian organization which did not fully comprehend or recognize that assignment of munitions should be subject to the dictates of grand strategy and that military, rather than purely political or economic, factors should govern the course to be followed. On the other hand, as a committee of the Privy Council, the Mutual Aid Board was a "much higher authority" than the Canadian Chiefs of Staff Committee and the Canadian Munitions Assignments Committee (Army). Only during April 1944 was a fairly complicated procedure accepted by all parties (see paras 162-169).

(vi) The London Scene

22. The bulk allocations made in Washington and Ottawa to the London Munitions Assignment Board included specific allotments earmarked for the Canadian Army Overseas and alterable only in the event of changing operational requirements. During May 1942 a Canadian Army Requirements Committee was established overseas to estimate requirements and place bids with the L.M.A.B.; the G.S.O. 1(S.D.) at C.M.H.Q. attended committee meetings to support these bids and those advanced on behalf of the Canadian Army in the North American Area for British-produced munitions. Canadian dealings with the Naval and Air Assignment Sub-Committees of the London Munitions Assignment Board were on a far smaller scale (see paras 176-184).

23. Contracts had been placed with Canadian industry for the total requirements of the munitions it could produce for the Canadian Army, both Overseas and in the North American Area. But the necessity of conserving shipping and the desire to have Canadian formations ready for battle as soon as possible had seemed good reasons for securing from the War Office during 1942 all the controlled stores possible. Although theoretically the War Office should have been eager to accept subsequent Canadian production in replacement, the quantities ordered by the British were so large and the global strategical conditions subject to such variations that there was not always likely to be a ready requirement for the Canadian item. With the equipment of the British Army to establishment now nearing completion and continued demands likely to be limited to "A" and "B" vehicles and small arms, it seemed that production in Canada to complete existing contracts would result in "double provision" of many items. Furthermore, due to the institution of a "manpower ceiling" for the Canadian Army Overseas, it was no longer possible to envisage First Canadian Army operating as a self-contained force and with a separate supply pipe line stretching from Canadian industry to the forward units (see paras 185-187).

24. During the early winter months of 1943 discussions were initiated in London with a view to integrating further Canadian production for the Canadian Army more closely with that of the United Kingdom, equipping the Canadian Army Overseas from British sources except for a number of special items of "continuing Canadian supply" (e.g. battle dress and vehicles) and merging British and Canadian supply channels for Engineer, Medical and Ordnance stores. Negotiations dragged on into the summer. Although such action seemed the only practical solution, there were many details to work out, particularly that of endeavouring to ensure that Canadian-pattern equipment actually would be issued to Canadian units by the British depots in which it was to be held (see paras 188-208). The balance of the Report discusses the manner in which Canadian troops serving in the Mediterranean and North-West Europe were supplied from British Base and Advanced Ordnance Depots and indicates certain of the problems encountered (see paras 209-218).

PART I - EARLY PRODUCTION PROBLEMS

(i) The Situation in 1939

25 Prior to the outbreak of the Second World War Canada possessed no munitions industry. Vast quantities of shells had been produced during The Great War, 1914-1919, but no weapons, except the ill-fated Ross rifle.* During the ensuing two decades only one of the two small Dominion Arsenals remained open, manufacturing limited quantities of small arms and artillery ammunition. The traditional source of Canadian supply remained the United Kingdom, but after 1935 its factories were fully occupied with the British rearmament programme and very little could be sent abroad.

26. In 1937 the Chief of the General Staff advised the Minister of National Defence that smallness of financial appropriations and the difficulty of obtaining delivery from the United Kingdom were the basic reasons why the military equipment deficiencies catalogued earlier had not yet been made good. He had no objection in principle to purchasing from American industry, at least equipment which would not be used by a field force, but existing U.S. neutrality legislation would automatically cut off further supplies and maintenance spares in the event of war. In his opinion, the only truly effective course of action would be the establishment of an armament industry in Canada, even though certain heavy equipments would still have to be bought from the United Kingdom due to the prohibitive per unit cost of manufacturing the small numbers required. Although the question of establishing publicly owned factories, following the example of Australia, was discussed, the Government ultimately decided to rely on private industry (5).

27. Questions of defence and munitions production loomed large at the Imperial Conference of 1937, but the Canadian Government was embarked on a policy of no prior commitments. Although Colonel G.P. Loggie, R.C.O.C., subsequently was attached to the staff of Canada House in London to facilitate the exchange of information on technical matters his approach was indirect, whereas representatives of Australia, New Zealand and India regularly attended meetings in Whitehall of the Principal Supply Officers' Committee which exchanged annual reports with similar committees in those countries (6).

*Likewise, the American Expeditionary Force of 1917-1918 had depended upon great quantities of armaments provided by the British and French. "While the United States supplied most of the food, clothing, and motor transport for the AEF, it produced a mere 160 of the 2,000 75-mm. field guns used by American troops overseas. All 1,000 of the 155-mm. howitzers came from the British and French. The infant air force used 1,000 pursuit planes provided by the French" (4).

28. During the fiscal year 1936-7 a survey of Canadian industry had been undertaken by a Navy, Army and Air Supply Committee, headed by the Master-General of the Ordnance, and by the spring of 1939 some 1600 plants had been surveyed. From the manufacturing point of view, however, firms were not tooled up to produce equipment of British design. Moreover, the design of certain equipments was the property of private British firms which were willing to permit production under license in Canada only for the Canadian Government's own military purposes. This ruled out production for British or other Commonwealth Governments and even Canadian requirements in practice, since these last were too small to justify the expense involved (7).

29. There were, of course, exceptions. One was Bren light machine guns: in 1937 the John Inglis Company of Toronto obtained a British order for 5000 concurrently with a Canadian order for 7000 (such duplication would result in a per unit saving to the Canadian taxpayer) (8). Another was the modest aircraft production programme allotted by the British Air Ministry in 1938 (9), coming on top of orders placed by the R.C.A.F. since 1936 to foster the production in Canada of service aircraft (but not aircraft engines) (10).

30. Until 14 Jul 39, when a Defence Purchasing Board was established under authority of the Defence Purchases, Profits, Control and Financing Act to take over the placing of all contracts in excess of \$5000, the Contracts Branch of the Department of National Defence had purchased such supplies, provisions, clothing, stores and equipment as were required by the Naval, Militia and Air Services and had awarded other contracts as had been necessary (11). The new Defence Purchasing Board engaged a small staff, largely consisting of C.N.R. and C.P.R. employees who had had years of experience in purchasing from heavy industry. During that summer the Canadian Manufacturers Association, with government encouragement, sent a mission to the United Kingdom to study the possibility of Canadian firms obtaining British defence orders. The President of the National Research Council, Major-General A.G.L. McNaughton, accompanied the mission, which returned to Canada just as war broke out. One of the members, Mr A.S. Ellis of the Ford Motor Company of Canada, was placed on loan to the Department of National Defence and remained somewhat longer in England "to procure a broad picture" of the British Empire requirements of standard mechanized transport and armoured fighting vehicles that might be needed to supplement the resources of the United Kingdom during the period of hostilities (12).

31. Following the Canadian declaration of War on 10 Sep 39 the Canadian Parliament passed a War Appropriation Act providing \$100,000,000, imposed a number of special taxes designed to place the war largely on a "pay-as-you-go" basis and authorized the creation of a Department of Munitions and Supply in place of the embryo, but already inadequate, Defence Purchasing Board. At the moment, however, only a lesser War Supply Board actually was established and initially made responsible to the Minister of Finance. (By Order in Council P.C. 3786 of 23 Nov 39 responsibility was transferred to the Minister of Transport, Hon. C.D. Howe.) Headed by Mr W.R. Campbell, President of the Ford Motor Company of Canada, who had other prominent business men as associates, the War Supply Board commenced operations on 1 Nov. In addition to placing

all contracts for the Department of National Defence and having control over war supplies in the narrow sense, it was to make plans for securing materials, oversee all munitions production and co-ordinate the whole industrial effort of the nation towards winning the war (13).

32 On 12 Sep the Prime Minister had told the House of Commons:

...Canada's geographical situation especially fits her to make a tremendous material and technical contribution to the joint effort. This joint effort raises another problem, namely the distribution of available materials as between us and our allies. Now that purchases on a large scale by the British government, and probably by other governments associated with Great Britain in the struggle, are likely to be made in Canada it is advisable that there should be an authority with power to act not only for Canada but as agents for other governments if they should desire it, and in any case to co-ordinate the purchases of the Canadian government with those made for other governments (14).

33. According to a press release issued by the Department of National Defence on 19 Sep, the Canadian programme would endeavour to put "first things first" and co-ordinate Canada's effort with that of the United Kingdom in the most effective way:

As has been anticipated, the British Government has indicated that Canada would be of most assistance at once by facilitating the purchase by the United Kingdom of essential supplies in this country. This will involve immediately the "gearing up" of Canadian industry to meet the heavy demands, and finding some way whereby Canadian dollars may be made available to the British Government to purchase the needed supplies in this country. In the first instance, this will probably involve repatriation of Canadian securities held in London and, at a later stage, the granting of credits (15).

34. To further that end, a Canadian delegation headed by Hon. T.A. Crerar, Minister of Mines and Resources, spent several weeks in the United Kingdom. Information and views were exchanged with British officials and factories were visited. Only during the summer of 1939 had a Ministry of Supply been established in the United Kingdom to relieve the War Office of its responsibilities for research, development and production of munitions. The Admiralty continued to handle its own procurement problems, however, successfully arguing that its existing peace-time organization had a special industry at its disposal and that wartime expansion would not be on anything like the scale required to meet the Army's current

and future needs. Similar arguments were employed by the Air Ministry to prevent its requirements branch being absorbed by the Ministry of Supply: not until May 1940 did a changed situation result in the establishment of a separate Ministry of Aircraft Production (16).

35. But things did not work out as the Canadian Government had envisaged. This was not a spectacular type of war effort guaranteed to stir the general public. Canadian industry was not sufficiently advanced in 1939 to make possible a rapid conversion to munitions production, except for ammunition and explosives. Therefore, in view of the ruling hypothesis of a three-years' war, Britain would gain little by encouraging a long term production programme in Canada. Moreover, British manufacturers did not wish to establish competitors who would trouble them after the War, while the British Government was anxious to conserve Canadian credits for the purchase of food and raw materials (17). On 8 Dec Hon. C.D. Howe told the members of the Cabinet War Committee that, apart from orders for Lysander aircraft, British contracts placed in Canada totalled only \$5,000,000. It might be noted that this British policy of treating North America as a marginal source for munitions bore even more heavily on American industry.*

36. By pre-war standards, however, sizable contracts were being let for Canada's own Armed Forces. Clothing, personal equipment, camp and barrack stores, and mechanical transport were immediate requirements. A naval shipbuilding programme was initiated, based on the capacity of Canadian shipyards rather than operational needs and requirements and on the understanding that equipment and fittings would be obtained from the United Kingdom through the Admiralty so that the corvettes and minesweepers under construction could be commissioned more rapidly than if time were spent in developing manufacturing facilities in Canada (19). R.C.A.F. requirements largely centred around the British Commonwealth Air Training Plan scheduled to commence operations on 29 Apr 40. In this connection, it might be noted that the United Kingdom's share was to be supplied in kind - engines for airframes manufactured in Canada on British contracts, service aircraft, spare parts and other equipment.

*According to the British official historical volume North American Supply by H. Duncan Hall:

The strength and persistence of the policy of treating the United States as a marginal source in the matter of war supplies was shown in a statement by the Minister of Supply (Dr. Leslie Burgin) on 19 March 1940. The statement dealt with the expansion of British industrial production and decreasing British dependence on foreign supplies. As United Kingdom, Empire and Allied production increased, the Ministry of Supply, 'the largest trading concern in the world', would spend less and less abroad. But purchases in the next six months would be specially important because they would give a breathing space for production in the United Kingdom to come up to capacity (18).

(ii) Creation of a Department of Munitions and Supply

37. On 9 Apr 40 the staff of the War Supply Board became the nucleus of a new Department of Munitions and Supply, headed by Hon. C.D. Howe. Mr G.K. Shields, who had been appointed Director of Administration of the War Supply Board on 22 Jan 40, became Deputy Minister. In addition to being responsible for ensuring that the prices paid were fair and reasonable Mr Howe was given wide powers to compel manufacturers and construction contractors to do whatever the exigencies of the war demanded, for such prices and on such terms and conditions as he might consider fair and reasonable (20). Representatives were sent to London to deal with officials of the Ministry of Supply and the new Ministry of Aircraft Production, but until the spring of 1942 Mr E.J. MacLeod of Canada House continued the pre-war practice of dealing directly with the Admiralty over the lesser requirements of the Royal Canadian Navy (21). Department of Munitions and Supply representatives despatched to Washington were in a more favoured position, being free to deal direct with American industry.

38. Following his return to Canada from overseas in May 1940, the Minister of National Defence gave the Cabinet War Committee an unflattering picture of the United Kingdom's war effort (see paras 50-51). At this meeting of 17 May the Prime Minister pointed out that many Canadian factories were only waiting for orders to undertake war production. The draft of a telegram to Prime Minister Churchill, stressing the need to encourage war production in Canada, was discussed and the telegram despatched on the following day. Not until 5 Jun, however, was Mr Howe able to inform the Cabinet War Committee that the situation regarding British orders was improving.

39. On 14 Jun the Cabinet War Committee agreed to accept the following proposition, advanced by the Master-General of the Ordnance in a memorandum of 18 May to the Minister of National Defence: Canada should undertake the manufacture of all articles of armament stores for her troops overseas, which, whether by character or quantity, could be produced economically in Canada.

40. On 25 Jun Messrs Ralston, Howe and Power met with some of their subordinates to discuss the possibility of obtaining a far wider range of weapons and equipment for all three Services from Canadian and American industry (22). Mr Howe held a further meeting on 5 Jul with representatives of the Navy to consider the question of meeting naval requirements from Canadian industry (23). But in a letter of 15 Jul to the new Minister of National Defence for Naval Services, Mr Howe summed up this last problem as follows:

Unfortunately, it has been the policy of the navy for many years to purchase supplies from the British Admiralty, so that new Canadian sources of supply are involved in obtaining practically all items on your list (24).

It would thus be quite an undertaking to meet the Royal Canadian Navy's requirements, even apart from those of complicated and large destroyers, from North American sources - especially now

that most of the existing Canadian industrial capacity was busy producing for the other Services.(25). Yet this was done (see paras 65-66).

41. Strangely enough, even in this hour of need the Aircraft Production Branch of the Department of Munitions and Supply experienced great difficulty in obtaining orders for front line aircraft. Not until the beginning of 1941 were sufficient orders for fighter and bomber aircraft on hand to justify large-scale plant expansion (26). The production of certain British types was then undertaken on the understanding that the remaining Canadian requirements for home defence would be provided by the Air Ministry from its bulk allotment of American-produced aircraft (27). Although the Air Ministry continued to provide its share of expenses in kind for the British Commonwealth Air Training Plan, an arrangement was made whereby Canada might manufacture locally, at the expense of the United Kingdom, aircraft spares that could not readily be supplied from England (28). It might further be pointed out that the bulk of the British share of training aircraft actually was acquired from those manufactured in Canada to British order and those obtained by the British Air Commission in Washington from United States production (29).

42. The pattern that was to follow for Canadian production has been well summarized in the official History of the Department of Munitions and Supply:

1940 will be seen as a year of organizing and planning with only a trickle of war supplies coming from the few sources that were available; 1941 a year of construction of new plants, of conversion and expansion of existing plants, of programmes being constantly enlarged and all available output being rushed forward to the United Kingdom, which was then fighting alone against the might of a victorious Germany; 1942 a year of rising production, a year of objectives reached and passed in the face of technical and other difficulties; 1943, a year of output so great that the industrial capacity and the national economy were strained to their utmost, a year that ended with approximately 5,000 persons in the employment of the Department, 25,000 in the employment of the Crown Companies and approximately 1,000,000 persons engaged directly or indirectly in war work; and 1944 to the end of the war a period when the requirements of the Armed Forces decreased and production programmes were curtailed (30).

(iii) Equipment for the Canadian Army
Overseas, 1939-1941

43. On 10 Oct 39 a meeting of Dominions' representatives in London with the Parliamentary Secretary to the Minister of Supply agreed that the requirements of the several Dominions for their Armed Forces from British sources should be handled by the respective United Kingdom departments. These requirements would be lumped with those of the British departments when allocation of materials in short supply was under discussion (31).

44. On 30 Oct Colonel Loggie wrote the Secretary of State for War that as well as sending the 1st Canadian Division overseas largely complete in personal equipment the Canadian Government could provide "a large portion of the mechanical transport, if not to accompany the Division, at least very shortly after despatch" (32). It also could place orders in Canada for other items, either to equip the Division or as replacements, if the War Office would indicate what was required. Discussing the equipment situation in Ottawa on 22 Nov the Master-General of the Ordnance agreed with General McNaughton that it was "essential to initiate manufacture of guns in Canada for Canadian forces at earliest possible moment". Both officers felt that "the fact that replacement weapons were in production in Canada would strengthen General McNaughton's hand in obtaining up to date equipment from the War Office" (33).

45. On the other hand, the War Office had already promised that the 1st Canadian Division should be furnished with equipment on a "training scale" following arrival in the United Kingdom and that all units would be fully equipped a month before leaving for France (34). On 5 Dec Mr Howe agreed to the suggestion made by the Department of National Defence that General McNaughton should be empowered to obtain necessary stores and equipment from the War Office (35). Such requisitions on the War Office would be checked by the Overseas Office in London of the Comptroller of the Canadian Treasury. Prices charged the Canadian Government for British ordnance stores included two elements: the basic cost to the War Office; and departmental expenses covering the cost of inspection, storage, packing, handling, interest on capital and headquarters administration up to the point of issue to Canadian units from R.A.O.C.* Depots in the United Kingdom (36). There were, however, serious deficiencies in the stocks of R.A.O.C. Depots and this resulted in the training scale issued to the Canadians being meagre in guns, vehicles and certain other technical stores. On 24 Feb 40 a Canadian Group was formed within the R.A.O.C. Field Stores Depot at Aldershot to store, handle and issue Canadian-owned ordnance stores received from Canada: although staffed with R.C.O.C. personnel it was under the executive control of an R.A.O.C. officer. During May a Canadian M.T. Depot was established at Bordon, to check and hold vehicles from Canada that had been assembled by either the Canadian Mechanization Depot in Southampton or the Ford Motor Company's plant at Dagenham, and to make all issues to units (37).

46. Naturally the Canadian Government was interested in an arrangement whereby replacements might be provided from Canadian industry. To offset the fact that certain munitions would always have to be accepted from British stocks it was hoped that Canada might supply additional quantities of items it could economically produce for British needs, to an equivalent money value. In the belief that the British Supply Board in Canada and the United States (see para 61) had been empowered to place orders for 25-pr and 2-pr equipments in Canada, Colonel Loggie wrote the War Office on 17 Jan 40 to ascertain whether the Canadian Government should place complementary orders "and if so would these, when available, be accepted in replacement of equipments of both natures which the

* Royal Army Ordnance Corps.

War Department are now supplying to Canadian troops for Canadian account" (38).

47. The Director-General of Munitions Production at the Ministry of Supply, who received a copy of this letter, could see no objection and in his reply of 19 Jan stated:

We should hope that any such action would improve rather than impede deliveries on our contracts. Moreover, if, as you have proposed to the War Office, this supply is taken in aid of Canadian contingent requirements, it will all be for the common good (39).

He gave a similar verbal assurance to Lt.-Col. W.A. Harrison and Mr E.A. Bromley, who were sent over to the United Kingdom in March by the Canadian War Supply Board, but failed to confirm it in writing. Then, during mid-March, he advised Harrison and Bromley that any such pooling arrangement would have to be made with the War Office (40). The answer of its Deputy Director of Army Requirements, despatched on 24 Mar 40, was unfavourable to say the least:

... the Department prefer that complementary orders for 25 pounder or 2 pounder equipments should not be placed by the Government of Canada.

The programme now being dealt with by the Ministry of Supply covers the equipment and maintenance of the Canadian Contingent and will provide a margin for the supply of any local requirements of Dominion Governments. An exception to this arises of course in respect of any special patterns, e.g. badges, which Dominion Governments themselves undertake to supply.

I am accordingly to suggest that in respect of the Dominion Contingent which is already in this country the Government of Canada should leave the matter of initial provision and maintenance of their equipments entirely in the hands of the War Department, and that in respect of training or other requirements in the Dominion the Government of Canada should requisition the quantities desired through the War Department to be met from deliveries off the bulk purchases of the Ministry of Supply (41).

48. On 18 Mar Lt.-Col. Harrison and Mr Bromley had been told by Rt. Hon. Anthony Eden, Secretary of State for Dominion Affairs, that the Canadian proposal was not unreasonable, however, and during the course of a meeting at the War Office on 28 Mar it was suggested that they have Mr Massey put forward a formal request (42). This the Canadian High Commissioner did on 1 Apr, suggesting to Mr Eden that:

... to offset the supply of equipment by the United Kingdom Government of a kind which cannot be manufactured in Canada, the Department of National Defence should be accepted as the source for replacing articles which can be economically manufactured in Canada and that, in the case of certain articles which Canada is not in a position to produce, the Canadian Government should supply other articles required by the United Kingdom Government to an equivalent

money value. It is hoped that such a pool arrangement might be made to cover the equipment supplied not only to the First Division and Ancillary Troops but to other Canadian forces coming overseas during the course of the war (43).

49. On their return to Canada in early April Lt.-Col. Harrison and Mr Bromley recommended to Mr Howe that a permanent representative of the new Department of Munitions and Supply should be stationed in London to work with the branches of the Ministry of Supply, since it would not be feasible to buy direct from British firms, which were operating under government controls (see para 37). Furthermore:

So far as the requirements of Canadian troops in the theatre of war are concerned, it is felt we will have to draw these supplies from the British, as otherwise we would have to maintain our own depots which is considered impracticable at the present time, especially having regard to the transportation problem (44).

In their opinion, the existing procedure should be continued, whereby officers at Canadian Military Headquarters and officials of the Canadian Treasury Office in London checked the charges made by the War Office.

50. No answer having been received to Mr Massey's letter of 1 Apr 40 the matter was taken up by the Minister of National Defence when he visited the United Kingdom. During a meeting with the Chancellor of the Exchequer, the Secretary of State for Dominion Affairs, the Minister of Supply, the Secretary of State for War and others on 26 Apr, Hon. Norman McLeod Rogers stated that, unless some arrangements could be reached quickly, Canadian war plants would have completed the majority of their contracts within six months and would become idle. The British ministers agreed that some procedure involving credits could be worked out (45).

51. On 3 May the Secretary of State for War told Mr Rogers that any future agreement on the matter of "barter" in war supplies (or the adjustment of financial balance between the U.K. and Canada by the provision of "goods" or military equipment, rather than by the transfer of funds) could be negotiated by the British Government only on the basis that:

- (a) The U.K. Government could not be expected to accept any Military supplies which it did not need.
- (b) Should direct provision in kind be acceptable, or equivalent exchange in different kinds, of supplies or equipment manufactured in the U.K., the U.K. cost should be the basis of financial adjustment.
- (c) Should credit be established by the provision of Canadian manufactures, not produced in the U.K., the Canadian price should govern (46).

It was further suggested that, to avoid endless complications, such "barter" arrangements between the War Office and the Department of National Defence should be restricted to military

supplies. Canadian acceptance was notified in a letter of 15 Jul, which pointed out, however, that "the fact that the United Kingdom had been replacing certain arms and equipment up to the present would not prevent Canada from supplying such replacements for Canadian troops when the Dominion is in a position to do so" (47). In the case of direct exchanges, article for article, or equivalent exchange for equipment which was in production in the United Kingdom, the British cost would be the basis of financial adjustment. In the case of provision by Canada of Canadian goods, not in production in the United Kingdom, the Canadian price would govern.

52. The actual equipment situation in the United Kingdom, which had been bad enough, became infinitely worse following the withdrawal from France. On 8 Jul 40 Dominion representatives were advised of three categories under which the War Office would issue equipment in future: a training scale of approximately 25 percent; a higher training scale of approximately 50 percent; completion to 100 percent of war establishment. Apart from deficiencies resulting from the 1st Canadian Infantry Brigade's hurried trip to France, the 1st Canadian Division already was among the formations in the last category. Steps were now being taken to repair these deficiencies before invasion should become imminent. Delivery to Canada of certain orders already contracted for, however, was no longer possible (48).

53. On several occasions during the summer of 1940 General McNaughton expressed concern as to the desirability of despatching further units from Canada in view of the shortage of equipment in the United Kingdom. In a telegram of 15 Aug, addressed to the Chief of the General Staff in Ottawa, he stressed that units should be provided with as much equipment as possible before leaving Canada (49). During a meeting at the War Office on 30 Aug the Assistant Chief of the Imperial General Staff advised General McNaughton that equipment must first be issued where most needed - the Middle East. Canadian units were, however, promised the lower (25 percent) training scale as soon as possible after arrival in the United Kingdom (50).

54. Subsequently, on 15 Oct the Secretary of State for Dominion Affairs telegraphed the Secretary of State for External Affairs in Ottawa that allocation must be determined in accordance with operational needs. Dominions forces in their home country would have to accept a very low priority, even though their deficiencies were great. It was hoped that by the end of the month the War Office would have completed a tabulation of such deficiencies. Thereafter, it was hoped to render a monthly report on the current Empire equipment situation to the Dominions' representatives in London. Uncontrolled stores would be distributed immediately they were available, by Ordnance Services at the War Office, but the bulk of the Dominions' deficiencies in controlled stores could not be met until after June 1941, unless there was a change in the strategical situation (51). Actually, however, the Ordnance provision sections within the War Office were still compiling Dominions' deficiencies during December 1940 (52).

55. During January 1941 it was decided to divorce questions of equipment from the hitherto regular monthly meetings at the War Office with Dominions' representatives (53). The first of a new series of monthly meetings, presided over by the A.C.I.G.S. (Lieutenant-General G.N. Macready) and with Dominions' representatives in attendance, was held on 8 Feb: in accordance with a ruling by the Chiefs of Staff Committee, such meetings could allocate up to 50 percent of the production of controlled stores to overseas theatres (54).

56. Certain changes evolved from experience but by September 1941 the system worked as follows. The A.C.I.G.S. monthly meeting allotted up to 50 percent of the British production of major controlled stores to Empire and Allied units overseas. Up to 50 percent of all other items of British production were allotted overseas by the monthly Branch Priority Meeting at the War Office. The remainder of the available controlled stores (approximately 50 percent) was divided among the forces in the United Kingdom (including the Canadian Army Overseas) at the P.P.U. Meeting (Priority of Preparation of Units Committee), held monthly by the Director of Staff Duties at the War Office (55).

57. Canadian Corps submitted its demands for controlled stores to G.H.Q., Home Forces while C.M.H.Q. approached D.D.S.D.(7) at the War Office for the similar requirements of the units under its command, sending an officer to the monthly P.P.U. meeting to support its bid. Ordinarily, the issue of uncontrolled stores was a routine matter and was handled by the appropriate Ordnance authorities. As regards the Canadian Army in Canada, a representative from C.M.H.Q. submitted bids for major items of controlled stores at A.C.I.G.S. monthly meetings, while a Department of Munitions and Supply representative attended Branch Priority Meetings to support bids for other items. It must be borne in mind that munitions manufactured in Canada and elsewhere on British contracts were allocated by these committees in London and that quantities of these might be allotted to units of the Canadian Army Overseas. Furthermore, since total monthly Canadian production was still considerably less than anticipated it was necessary for the Department of Munitions and Supply and the Ministry of Supply to decide how the current output should be divided between the outstanding Canadian and British contracts (see para 157).

58. The greater part of the controlled stores arriving from Canada during 1941 were allocated to Canadian Corps, which arranged its own system of priorities. Actual issue was handled by Ordnance Services, C.M.H.Q., which also released anything left over to units under the command of C.M.H.Q. without reference to the General Staff.(56). All "B" vehicles, except for a few special types, were Canadian supply, but universal carriers were the only "A" vehicles as yet being received from Canada. The following weapons and technical stores were entirely Canadian supply, except for such urgent demands as found Canadian stocks temporarily insufficient: rifles, pistols, Vickers and Bren machine guns, Thompson sub machine guns, 3-in. mortars, binoculars, field clinometers, prismatic compasses, watches and the like (57). The distribution of the uncontrolled stores received from Canada was handled as a purely routine matter by Ordnance Services.

59. During the summer of 1940 the Canadian Group at the R.A.O.C. Field Stores Depot, Aldershot, had been moved to Crookham but remained under British control (see para 200). Canadian M.T. spares were handled entirely by the British Central Ordnance Depot at Chilwell, since Canadian requirements were only a fraction of the capacity of this huge depot (58). With Canadian industry turning out sufficiently large stocks of war materiel by early 1941 to enable considerable quantities being shipped overseas, General McNaughton began to urge that the Canadian Army Overseas should become as self-contained as possible and that "only such articles as may be absolutely necessary" should be purchased from Great Britain (59).

A direct chain of R.C.O.C. supply should be established from the manufacturers in Canada to the troops of his Corps. General McNaughton's reasons for wanting Canadian equipment were based on: first, its established reputation for quality and a standardization of parts and components which permitted easy maintenance; secondly, through close contact with Canadian industry any developments and improvements initiated in the field could be incorporated into the equipment to the advantage of the troops; finally, the men and women working in Canadian war plants would be encouraged to greater production if they knew that their efforts were going to equip Canadian troops (60). During the summer General McNaughton pressed his views on a number of visitors, including Prime Minister King (61). The Minister of National Defence visited the United Kingdom in October and studied the proposals but seemed reluctant to agree: Mr Ralston pointed out that the original agreement had been that "we would provide our own supplies as far as possible, but would obtain any shortages from the British" and questioned whether the establishment of a Canadian Base Ordnance Depot would justify the added cost and personnel (62). Doubts were later expressed in Ottawa as to whether the formation of a Base Ordnance Depot would be a wise move in the event of the Canadian Corps leaving England, but acceptance finally was gained early in 1942. During the spring and early summer of 1942 a Canadian Base Ordnance Depot of three, and subsequently four, sub-depots was established to handle all ordnance stores (including vehicles) received from Canada and those that continued to be obtained from the British (63).

(iv) Purchasing Organizations in North America, 1939-1940

60. As early as January 1939 the British Government had considered the practicability of establishing a purchasing mission in the United States. However, the strong "isolationist" sentiment then prevalent, coupled with the "arms embargo" clauses of the U.S. Neutrality Act, made it advisable for the British Purchasing Mission to establish its headquarters in Ottawa during September (64). Actually its principal function in Canada disappeared almost immediately, as a result of the Canadian Government's decision that all purchases from industry should be conducted through its newly instituted War Supply Board (see para 31); what remained was really a role as technical adviser and consultant. Once the "arms embargo" clauses were replaced by "cash and carry" limitations on 4 Nov 39 the interested belligerents could buy what they liked in the United States, assuming they possessed the necessary American dollars.

61. On 7 Nov 39 the British Government announced that it was replacing its existing purchasing machinery by a British Supply Board in Canada and the United States. British purchases in Canada would be made through the Canadian War Supply Board; purchases in the United States would be placed through a British Purchasing Commission headed by Mr Arthur B. Purvis, a prominent Scots-Canadian industrialist who, among his other business interests, was then serving as President of Canadian Industries Limited. Mr W.R. Campbell of Canada's War Supply Board and Mr Purvis were appointed to this central British Supply Board, which included representatives of the Admiralty, Ministry of Supply, and British Treasury (65). The paucity of the British orders placed in Canada has been

noted above (see para 35). Apart from orders for aircraft and a few peculiarly American items such as the Thompson sub machine gun and the Sperry A. A. predictor, British representatives placed very few firm orders in the United States. More often there merely were inquiries about supplies which might be purchased, if they could be had cheaply and quickly, should British production become interrupted (66).

62. Late that same month it was decided to extend the unified economic co-operation, exemplified by the Anglo-French Co-ordinating Committee established in London under the chairmanship of M. Jean Monnet, to the formation of an Anglo-French Purchasing Board in the United States. This Board was to comprise members of both the British and French Purchasing Commissions, themselves only loosely federated committees, and was to be headed by Mr Purvis (67). Mr W.R. Campbell of Canada's War Supply Board was admitted to membership. In part, at least, this action was taken because of pressure from the United States Government, which also preferred that the Commonwealth countries should first co-ordinate their needs with the British Government and use a common channel of approach (68).

63. Even though the expansion of industry required for the United States' own "war preparedness programme" was still relatively small, it was imposing a distinct strain on the American economy, when added to the increased demands of the civilian consumer whose income was now rising and the British and French purchasing agents. As early as 6 Jul 39 President Roosevelt directed that the Army and Navy Munitions Board (headed by the Assistant Secretaries of War and the Navy) should attempt to co-ordinate the purchase of munitions for the British, French and American forces through a special Clearance Committee. On 6 Dec 39 the President directed that an interdepartmental committee assume these functions, serving as the exclusive liaison authority on procurement matters between the United States and interested foreign governments; it was responsible to the President through Secretary of the Treasury Henry Morgenthau, Jr (69). Beginning with January 1940 the Allied Missions were required to submit to the President's Liaison Committee a weekly statement of the purchases that they were making or intended to make (70). By mid-1940 this liaison body had been given the official designation of Interdepartmental Committee for Co-ordination of Foreign and Domestic Military Purchases (Colonel James H. Burns was U.S. Army representative). Fortunately Mr Purvis got on extremely well with Mr Morgenthau, who wrote after the War:

From the first Purvis impressed me tremendously. He was not only the ablest British representative in Washington, but one of the rarest individuals I have ever known. His death in an airplane accident in 1941 was an almost irreplaceable loss.... I trusted Purvis more than any other British representative. We took every opportunity to make it clear in London, which occasionally tried to undercut him, that he was the man we proposed to deal with. (71).

64. Following the fall of France the Anglo-French Co-ordinating Committee was disbanded but many of its activities in London were taken over by an interdepartmental North American Supply Committee headed by Sir Arthur Salter,

Parliamentary Secretary to the Minister of Supply. Existing French contracts in the United States were transferred to the British Purchasing Commission and H. Jean Monnet took a position under Mr Purvis. Moreover, the British were now forced to the realization that continued resistance, and ultimate victory, would be possible only with munitions from North America. The new British watchword became the utmost supply of arms in the next six months, quickly and at all costs (72).

65. The British Purchasing Commission now became divorced from the hitherto theoretically superior British Supply Board in Canada and the United States. The latter became defunct on 31 Aug 40, having already been replaced in Ottawa by a United Kingdom Technical Mission. During June a separate British Admiralty Technical Mission had arrived in Ottawa to investigate the possibility of manufacturing "Admiralty pattern" stores in Canada and increasing the capacity of Canadian shipyards. Although all British orders were to be placed in Canada through the Department of Munitions and Supply it was understood that the United Kingdom would provide technical and inspection personnel to interpret specifications, assist firms with production problems and the subsequent task of inspection. The British Admiralty Technical Mission assisted the British Purchasing Commission in a like manner as regards naval purchases made in the United States: these last were, however, mainly stores of commercial pattern, torpedoes, ammunition and Oerlikon guns (73).

66. By lumping British and Canadian naval requirements in the same contracts the Department of Munitions and Supply was able to make an offer attractive enough to encourage sufficient Canadian firms to develop production. Eventually Canada was to become largely self-sufficient in all but the production of larger guns, torpedoes, certain types of ammunition and more technical equipment. Since the Department of Munitions and Supply and the Royal Canadian Navy had assumed responsibility for constructing and equipping all vessels building in Canada it was only natural that the Admiralty should be asked to provide those items that they could not procure. After all, the requirements of the vessels on order for the British Admiralty Technical Mission had to be met. Therefore, Canadian requirements came to be included in the shipments of "Admiralty pattern" stores and guns that reached the B.A.T.M.'s Toronto warehouse from the United Kingdom and Bermuda, and the United States (74).

67. The British Supply Board in Ottawa had failed to fulfil its original purpose because the Canadian Government, already handling purchases for the British Government in Canada, preferred to have direct relations with the relevant departments in Whitehall. On the other hand the several British missions in the United States succeeded because they had to do the buying; even though benevolently neutral, the American Government could not make purchases for a belligerent United Kingdom, particularly with British funds (75).

68. In addition to permitting the sale of weapons and equipment declared surplus to American defence requirements during the weeks following Dunkirk, President Roosevelt had created an Advisory Commission to the Council of National Defense in May to plan future production, and in June had appointed Mr Donald Nelson as Co-ordinator of National Defense Purchases (76). However, Mr Morgenthau was to warn Mr Purvis

that, if the claims of the belligerents were not concisely and collectively stated, they might be swept aside should the United States become a belligerent; a complete statement of Allied requirements was essential. These warnings were, in turn, passed back to London (77). According to the volume on British War Economy by W.K. Hancock and M.M. Gowing:

Both as a British and as an Allied official, Purvis [had] found his work hampered by the 'uncontrolled purchases' which, as he repeatedly complained, 'destroyed his background' with United States industry and the United States Government. Not until the early summer of 1940 did he win decisive success in the struggle to extend his own direct responsibility of purchase, and - what was no less important - to receive as of right complete detailed information about the actions and plans of all other purchasing bodies. This information was essential to him if he were to secure for the Allies, or for Britain alone, a fair share of the expanding American production (78).

69. During a visit to Ottawa in August 1940 Mr Morgenthau told Prime Minister King that he was doing everything possible to meet Canadian and British needs. He suggested that the best channel was through Mr Purvis and the Washington representative of the Department of Munitions and Supply, rather than through representatives of the Canadian Armed Forces. (An air attaché had been serving at the Canadian Legation since February 1940 to advise on aircraft procurement and naval and military attachés went to Washington early in September.) On 27 Aug the Cabinet War Committee agreed to this suggestion, bringing to nought a proposal by Mayor La Guardia that Canadian orders in the United States should be channelled through him, in his capacity as chairman of the American Section of the recently created Permanent Joint Board on Defence.

70. Consequent upon a meeting held in New York about the same time, and attended by representatives of the United States, the United Kingdom, Canada and Australia, the British Government had reached the following conclusions:

- (a) Imperative that requirements of Commonwealth should be co-ordinated, presented as a whole and dealt with through British Purchasing Commission.
- (b) That Commonwealth requirements should be set high enough now before United States programme has been settled and organized in detail (79).

The British view was that all Commonwealth purchases should be made through, or in co-operation with, the British Purchasing Commission. Since American productive capacity was not unlimited it would be essential for Mr Purvis to submit a complete and comprehensive list of Commonwealth requirements to the United States Government's Defense Advisory Commission as soon as possible. And since the supply of many major items would not be sufficient to meet the demand there would be questions of priority and allocation. The British Government believed that these questions should be settled in London, rather than

New York, "as part of general war strategy and through whatever forms of joint Commonwealth consultations prove most suitable" (80). Therefore, the British Government wished the Dominions to table in London their requirements for whatever controlled stores could not be produced internally. A consolidated Commonwealth programme of purchases in North America should be forwarded to the British Purchasing Commission as soon as possible. The telegram conveying this information to Ottawa concluded as follows, however:

The Dominions Office appreciate that the suggestions made above are, in certain respects at least, more applicable to other Dominions than to Canada, which has special relations with the United States. They hope, however, that the principles enunciated will commend themselves to the Canadian Government, and will be glad to have your observations thereon (81).

71. At its meeting of 5 Sep the Cabinet War Committee rejected this proposal, although an answer was not despatched to London until 19 Sep. While recognizing the need for Commonwealth co-operation with regard to purchases in North America, the Canadian Government felt that the existing arrangements were satisfactory to Canada and replied that the needs of the rest of the Commonwealth would be taken into account when placing Canadian orders in the United States (82).

72. Agreement was reached in October, however, that an Inspection Board of the United Kingdom and Canada should be created to replace the several existing small inspection staffs, and be entirely independent of all production or purchasing agencies. This Board was made jointly responsible to the High Commissioner for the United Kingdom in Canada and the Minister of National Defence: it was headed by a British officer as Inspector-General (Major-General R.F. Lock) and there were two Deputy Inspectors-General, one for Canada and one for the United States (83).

73. By now a Joint Aircraft Committee in Washington was busily investigating the problems involved in standardizing American combat aircraft and determining the numbers that should be produced to meet Anglo-American needs. The initial committee of two representatives of each of the United States Army Air Corps, United States Navy, British Air Commission* and the Office of Production Management had been joined by representatives of the President's Interdepartmental Liaison Committee and the Advisory Commission to the Council on National Defense. A Subcommittee was created to allocate deliveries, becoming the first step towards a policy of assigning American munitions (84).

74. On 2 Oct 40 Sir Walter Layton, Economic Adviser to the British Purchasing Commission, wrote Secretary of the Treasury Henry Morgenthau that:

*Later one of these was to be appointed from the R.A.F. Delegation.

It is essential that the programmes of the United States and British requirements be as much as possible co-ordinated so as to prevent competition arising in the industrial field.... To this end we must seek a common programme agreed and adjusted to the conflicting requirements of immediate and ultimate aid (85).

But Sir Walter Layton was immediately referred to the U.S. War Department, for "as British procurement impinged more and more upon American rearmament it was more and more with the American users of military equipment that the British had to deal" (86).

75. On 3 Oct Sir Walter Layton and three of his associates held the first of a number of discussions with U.S. War Department officers on the overall question of standardization. It was quickly agreed that British aircraft production should be integrated with American; however, British orders for equipment not standard in the United States were regarded with a jaundiced eye (87). The same reasoning was extended to army ordnance items. (As early as 24 Aug Secretary Morgenthau had offered to finance the production of British requirements, if they were for "common types" that the U.S. Army had adopted, or could adopt.) (88). Whereas Professor M.M. Postan's volume British War Production deplores the fact that British demonstration teams were unable to convince American officers of the superiority of British weapons. (89), an American official volume suggests that U.S. weapons were better, equal, or nearly equal, in performance and could be produced more quickly - and above all, in far greater quantities - by American industry (90). Although the Americans considered that the British 25-pr was inferior to their own 105-mm howitzer and that their own anti-aircraft and anti-tank guns and service rifles could be manufactured far more readily than the British counterparts, they did come to accept the 20-mm Oerlikon and 40-mm Bofors anti-aircraft guns and agreed to modify their existing M.3 medium tanks sufficiently to British specifications to produce the M.4 Sherman tank (91).

76. "While the supply of stores other than those of standard American pattern was often absolutely vital to the British", the British official volume entitled Studies of Overseas Supply suggests that "their manufacture seemed to the Americans, as indeed it was, thoroughly uneconomic and anomalous" (92). On the other hand:

...as a general rule ... the British were keener to secure delivery of non-common stores, class for class, than of any other. The point is indeed obvious: the non-common equipment was what they really wanted, while the standard American material, except in the few cases where the United States forces had adopted British designs, was a pis aller. Components, in turn, were more precious than finished equipment of any type. A fairly small import of key components could make a very great difference to British output, and the maintenance or expansion of British output was more highly valued than the prospect of an equivalent increase in American production, the fruits of which the British could never be sure of enjoying (93).

Therefore, some friction was unavoidable.

77. Back in September 1940 Sir Edward Layton had told Mr Morgenthau that requirements for equipments of British pattern would be ordered from Canadian industry as far as possible (94). Canadian productive capacity could never be large enough to meet all British requirements from abroad, however, so it was now suggested that a block of 10 British divisions for service in the Middle East should be equipped with wholly American-pattern weapons (95). This found acceptance in the Stimson-Layton agreement of 29 Nov 40 (although actually when these weapons became available in 1942 they were diverted, by common consent, back to the U.S. Army).

78. Three days after he had been re-elected President, Mr Roosevelt announced a "rule of thumb" policy that had been suggested by Mr Purvis for the division of American arms output - roughly 50 percent for British and Canadian forces (96). Both the United States Army and Navy were dubious about the wisdom of such action, since their own growing forces were woefully short of equipment, but the President had more correctly diagnosed American's first line of defence as being the British Isles

(v) Lend-Lease, 1941

79. By the late autumn of 1940 the United Kingdom had virtually exhausted its supply of U.S. dollars and had almost stopped placing contracts in the United States. For some time President Roosevelt had been giving considerable thought to this financial dilemma but a practical solution was found only in December, during his cruise to the Caribbean and following the receipt of a long and detailed letter from Mr Churchill discussing the British outlook for 1941 (97). The solution was made public at a press conference on 17 Dec. Henceforth, President Roosevelt explained, defence of the United States and not dollars would determine where American munitions would go. The United States Government would place all contracts for war materiel. But, should it be decided that any particular munitions "would be more useful to the defense of the United States if they were used in Great Britain than if they were kept in storage here," the United States could "either lease or sell the materials, subject to mortgage, to the people on the other side" (98). On 10 Jan 41 a bill was introduced simultaneously into the Senate and the House of Representatives and became law as the Lend-Lease Act on 11 Mar. It authorized the President to furnish material aid, including munitions, to all countries whose resistance to aggression was contributing to the defence of the United States:

The terms and conditions upon which any such foreign government receives any aid...shall be those which the President deems satisfactory, and the benefit to the United States may be payment or repayment in kind or property, or any other direct or indirect benefit which the President deems satisfactory (99).

Henceforth procurement became a governmental matter and its extent "was controlled, firstly, by the funds which Congress could be induced to assign for the purpose, secondly, by the general volume of American defence production, and thirdly,

by the proportion of that production which the United States Services were prepared to forgo." (100)

80. Instead of requiring a new procurement organization, Lend-Lease came to be handled through the War and Navy Departments for munitions, the Maritime Commission for merchant ship construction and ship repairs, the Department of Agriculture for food and other agricultural products and the Procurement Division of the Treasury for raw materials and industrial equipment (101). Actual planning of war production was the work of the War and Navy Departments and the Office of Production Management, which last was responsible for co-ordination and regulation of production. Both the War and Navy Departments established Defense Aid Committees to deal with the several categories of munitions and requested the new British Supply Council in North America (see para 81) to provide representatives on each, since "user" justification more and more came to be demanded before procurement could be undertaken. This necessitated the appearance of British service representatives in Washington, which now replaced New York as the centre of British activities (102). Initially, these were attached to the British Purchasing Commission, the British Air Commission and other bodies, ostensibly as civilians; later a British Admiralty Delegation, British Army Staff and R.A.F. Delegation were to be grouped into a British Joint Staff Mission. The existing Joint Aircraft Committee was continued as the requirements committee for aircraft. The five committees formed within the U.S. War Department were grouped into a Defense Aid Division, headed by Colonel Henry S. Aurand, in the office of the Assistant Secretary of War. Each of these permanent sub-committees included British supply and user representatives (103). The Navy Department Committees developed into a Lend-Lease Liaison Office. Although not given that title Mr Harry Hopkins became virtual Lend-Lease Administrator. The members of the existing President's Liaison Committee carried on until 2 May 41 when it became the Division of Defense Aid Reports; Major-General James H. Burns was appointed executive officer of this Division (104). It handled all the administrative details of Lend-Lease until the office of Lend-Lease Administration was established during October 1941 under Mr Edward R. Stettinius, Jr (105).

81. In view of the imminence of Lend-Lease aid it had been made public on 15 Jan 41 that Mr Purvis had been appointed chairman of a British Supply Council in North America that would deal with all policy issues for the several British missions in Washington. According to the official statement:

There will be no alteration in relations between Supply Departments in this country and the Department of Munitions and Supply in Canada, but in view of the close inter-connection between Canada and United States programmes the Hon. C.D. Howe, Minister of Munitions and Supply, has agreed to become a member of the British Supply Council in North America (106).

On 3 Feb the Cabinet War Committee in Ottawa was told that Mr Howe's new appointment would make possible the co-ordination of British and Canadian buying in the United States.

82. In order to emphasize that the United States was not yet an "arsenal of democracy" and hoping to stir the Americans to greater production heights, Mr Purvis furnished President Roosevelt on 13 Feb 41 with a very confidential list of British requirements of ships, aircraft, weapons, ammunition, tools and semi-finished materials whose only source of supply was the United States. President Roosevelt promptly directed that, as soon as Lend-Lease should become law, the civil and service heads of the Army and Navy should confer with Treasury and Office of Production Management officials as to how total British and American requirements could be met by American industry (107).

83. Also during February 1941 Mr Knudsen secured agreement within the Office of Production Management for a "single unified American defense program" to include British and other foreign requirements for the fiscal year 1942 (108). Requirements were found to be so high, however, that realization could not be possible without drastic cuts in production for civilian use - a step which would be dangerous politically. It was not until 30 Jun, therefore, that Secretary of War Stinson asked the Office of Production Management for a consolidated balance sheet of British, Canadian and American war production. Although Mr Purvis was able to supply the British and Canadian figures at once, it was August before the Office of Production Management could begin the work of consolidating them with American figures (109). Ultimately this Anglo-American Consolidated Statement of Production became a regular statistical series.

84. The bulk of the allocations made to the United Kingdom under Lend-Lease during 1941 were for food and raw materials. Most of the munitions being delivered had been ordered earlier and were paid for in cash (110).

85. Although it had been agreed during the United States-British Staff Conversations in Washington (29 Jan-27 Mar 41) that immediate steps should be taken to provide "a method of procedure which will ensure the allocation of Military Material ... in the manner best suited to meet the demands of the Military situation", only in the case of aircraft were any steps taken by the Conference to carry out this recommendation (111) It was agreed that the British should receive all American-built planes from their approved 14,375 and 12,000 aircraft programmes, and all additional U.S. production resulting from new capacity until such time as the United States should enter the war. The existing U.S. Army Air Corps' goal of 54 groups and a target of 15,000 planes for the U.S. Navy also were accepted. Allocation was largely arranged by the Joint Aircraft Committee while planning the production schedules: however, due to the stipulation that actual deliveries would be conditioned by the ability of the British or American forces "to absorb material usefully", there was a practical priority for the British programmes (112). No similar allocation agreement was reached for army equipment:

Ground munitions lent themselves far less readily to allocation on the basis of production priorities, except of course in case of noncommon articles produced specifically for a foreign country. For the great bulk of common articles that made up both the Army and lend-lease programs, contracts were let with the same firms

and administered by the same people in the supply arms and services, though they were financed with separate funds. Much of the final assembly work was done in Army arsenals, where it was impractical to separate components produced under two types of contracts. Even where separation of the two types of contracts was possible, it was undesirable in the interests of both maximum production and intelligent distribution.... It soon became clear that any allocation policy would have to be based upon considering lend-lease and Army production of common articles as a single program, and using these devices to provide delivery to the country desired regardless of the source of financing (113).

86. For the time being, allocations could be made only in accordance with the clause of the Lend-Lease Act which permitted transfers from existing stocks to a valuation of \$1,300,000,000 with the approval of either the Chief of Staff of the U.S. Army or the Chief of Naval Operations, or by the juggling of contracts. What bothered British representatives in Washington was the fact that the proposed allocation of American munitions was "alarmingly small" in comparison with their requirements (114). In a letter of 13 May advising the Army and Navy Munitions Board Priorities Committee of the British order of preference for the production of American munitions, Mr Purvis stressed:

...the firm conviction of the British Government that ... all high ratings should be reserved for munitions supplies that can be made available for combat use at the latest by the end of June 1943. We are now entering into what may be the most critical phase of the war, and no volume of supplies planned for late delivery can compensate for a shortage of them in the near future. In fact, we urge that every consideration should be given to all cases that can be put forward in which the issuance of a high priority can achieve relatively large deliveries in the next few months (115).

Again, on 11 Jul Mr Purvis produced an aide-memoire stressing the "paramount importance of the production of military weapons that are needed now for combat use". Thus:

Orders are being placed for raw materials required in the hulls, armament, equipment, engines and instruments, of the 1943 ships, with higher ratings than those applicable to orders being placed for all similar items required under the tanks and aircraft programs. All this must tend to delay the delivery schedules of the tanks and aircraft, for which we have such urgent need.

We submit, therefore, that tanks, aircraft, anti-tank and anti-aircraft guns, which are wanted for combat use immediately should have a higher rating than vessels not due for completion until 1943 and 1944 (116).

87. At a meeting called by the British Ambassador on 7 Aug and attended by the Heads of all the British Missions in Washington the British Joint Staff Mission put forward the following views:

Smallness of allocations made to us is not due to ill-will. The fact is that present American production of war materials is hardly more than enough to provide for minimum U.S. requirements for training and possible U.S. commitments. U.S. Chief of Staff feels bound to retain sufficient material to meet these minimum requirements. He cannot at the same time meet full requirements of British and other friendly Nations. This may distress him but naturally does not to the same extent as would failure to meet his own requirements provide him with incentive to press for drastic, and politically difficult, action necessary to ensure rapid production of full requirements of all anti-Axis Nations.

It is open to us to argue that both in our opinion, and in the expressed opinion of the U.S. Administration, the United States can best defend themselves by ensuring through material aid the continued resistance of the British Empire. It seems certain, however, that the answer to such an argument would be that whilst the fronts on which the British are fighting may well represent America's first line of defence, no strategist can afford to ignore his other lines of defence or the training and morale of the forces destined to man them.

This argument is difficult to counter. Our main object on supply matters must, therefore, be to ensure that production of war material in this country is increased with the greatest possible speed until it reaches such a pitch that it can provide the necessary material to meet both U.S. and British requirements as well as China, Turkey, South American Republics, etc., and now Russia. This cannot be achieved unless there is immediate turn-over to war production of considerable proportion of the productive capacity at present devoted to manufacture of civilian goods (117).

There was general agreement with these views but it was felt that the action necessary would be possible only as a result of direct instructions from President Roosevelt.

88. A grievous blow was soon struck at Anglo-American relations in Washington, however, when Mr Purvis met his death in an aircraft accident while flying to attend the "Atlantic Meeting" (9-12 Aug 41) between Prime Minister Churchill and President Roosevelt. His work was divided between Mr Morris Wilson, an assistant who succeeded to the post of Chairman of the British Supply Council in North America, and a new Executive Officer, Mr E.P. Taylor, a Canadian business executive who was Hon. C.D. Howe's full time representative on various missions in Washington. It must be conceded, however, that the whole problem of North American supply was becoming so vast that no single individual outside the innermost circle of government could have continued to dominate the whole scene as had Mr Purvis and, in practice, the role of the British Supply Council noticeably dwindled.

89. During the "Atlantic Meeting" the British Chiefs of Staff attempted to win their American counterparts round to their way of thinking but found that Admiral Harold R. Stark and General George C. Marshall were convinced that public opinion at home would insist upon considerable quantities of new equipment being assigned to the U.S. Army and U.S.A.A.F., where shortages were acute. In this respect the British Chiefs of Staff subsequently advised the British Joint Staff Mission in Washington:

American Chiefs of Staff main pre-occupation was question of supply and organization. They were much exercised to arrive at a correct order of priority for our requirements and a fair allocation of new production. They complained about our present method of putting forward our requirements saying that they often receive requests for material through more than one channel and that these requests often conflict. Moreover they say they are not given a clear indication of the relative importance of requirements of each Service and that the items on any one list are not set out in an order of priority. They considered allocation of war material between various claimants should be done on basis of strategic requirements and they think our list should come to them through Joint Staff Mission with whom there could be free and frank discussion on military grounds of our demands. These could then be weighed up along with their own and those of other friendly countries and an agreed allocation made. They would much prefer this to present arrangements whereby they receive demands through Purchasing Organisation who are not in a position to state military case.

Chiefs of Staff consider this to be one of the most important points which emerged from discussion and have already [23 Aug] taken question up here (118).

90. On 6 Sep the British Chiefs of Staff despatched a new directive, by telegram, to the British Joint Staff Mission. As far as the British Supply Council in North America was concerned, this new directive specified:

It is necessary that the work of Council and of Joint Staff Mission should be closely co-ordinated, and in order to achieve this you will

- (a) Advise Council on all technical and military matters:
- (b) Make such representations as may be necessary to the War Department and Navy Department on the strategic aspect of our supply needs;
- (c) Refrain from initiating representations on supply matters without prior consultation with Council (119).

91. The question of aid to Russia in the form of British and American munitions was settled by the despatch of Lord Beaverbrook (Minister of Supply) and Mr W. Averell Harriman (head of the Lend-Lease Mission in London) to Moscow late in September. On 1 Oct a Protocol was signed by Beaverbrook, Harriman and Molotov, detailing the munitions that could be supplied to the U.S.S.R. by the United Kingdom and United States within the period October 1941 to June 1942.

92. The effort to fit the Soviet aid programme into the existing structure in Washington was, however, accompanied by a general trend towards "systematizing and extending" Lend-Lease operations (120). As Defense Aid Director within the U.S. War Department, Colonel Aurand laboured "indefatigably" to get all foreign military requirements, except the inevitable emergency demands, placed into programmes. Early in November a comprehensive statement of British requirements from American production through the end of 1942 was submitted by officials of the British Supply Council with a supporting brief from the British Joint Staff Mission. The British continued to insist that American rearmament should be subordinated to the needs of the actual belligerents, in which they were supported by the Chinese, Dutch and Russians. President Roosevelt himself "seemed inclined to the view that America's contribution to the defeat of the Axis should be weapons, not armies" (121). Thus, despite the objections raised by Admiral Stark and General Marshall, a formula devised by the President on 22 Sep 41 stood - 75 percent of total production should go to Defense Aid after 1 Mar 42, when 70 percent of the (U.S.) Protective Mobilization Plan equipment was expected to be on hand (122). By 25 Nov Colonel Aurand's staff had completed a new Defense Aid allocation table with schedules projected through the end of the calendar year 1942. But the Japanese attack on Pearl Harbor was to change everything (123).

(vi) Hyde Park Declaration, 1941

93. Although Canada did not want Lend-Lease aid, feeling that it should be reserved for beleaguered countries and being worried about possible curtailments of its own national sovereignty, some palliative obviously was necessary by early 1941 (124). The familiar North Atlantic triangular trade had broken down and Canada was holding large sterling balances no longer convertible into dollars. Moreover, her supply of U.S. dollars was being drained by an increasingly unbalanced trade with the United States and it was becoming difficult for Canadian industry to purchase in the United States the machine tools, raw materials and components necessary to complete existing orders (125). On 11 Feb 41 Mr Howe told the Cabinet War Committee that the passage of the Lend-Lease bill might result in British orders being transferred from Canadian to American industry. On 26 Feb the Minister of Finance told the Committee that it seemed inevitable that Canada would have to extend credit to the United Kingdom. During March a number of British orders in Canada actually were cancelled.

94. An answer was devised by President Roosevelt and Prime Minister King during their discussions at Hyde Park in April 1941 - an economic redistribution of war production in North America so that Canada could concentrate on those items it could produce most efficiently. The basis for

the solution was not a treaty, but merely the following statement, issued on 20 Apr and since known as the Hyde Park Declaration:

Among other important matters, the President and the Prime Minister discussed measures by which the most prompt and effective utilization might be made of the productive facilities of North America for the purposes both of local and hemisphere defence and of the assistance which in addition to their own programs both Canada and the United States are rendering to Great Britain and the other democracies.

It was agreed as a general principle that in mobilizing the resources of this continent each country should provide the other with the defence articles which it is best able to produce, and, above all, produce quickly, and that production programs should be co-ordinated to this end.

While Canada has expanded its productive capacity manifold since the beginning of the war, there are still numerous defence articles which it must obtain in the United States, and purchases of this character by Canada will be even greater in the coming year than in the past. On the other hand, there is existing and potential capacity in Canada for the speedy production of certain kinds of munitions, strategic materials, aluminum, and ships, which are urgently required by the United States for its own purposes.

While exact estimates cannot yet be made, it is hoped that during the next twelve months Canada can supply the United States with between \$200,000,000 and \$300,000,000 worth of such defence articles. This sum is a small fraction of the total defence program of the United States but many of the articles to be provided are of vital importance. In addition, it is of great importance to the economic and financial relations between the two countries that payment by the United States for these supplies will materially assist Canada in meeting part of the cost of Canadian defence purchases in the United States.

In so far as Canada's defence purchases in the United States consist of component parts to be used in equipment and munitions which Canada is producing for Great Britain, it is also agreed that Great Britain will obtain these parts under the Lease-Lend Act and forward them to Canada for inclusion in the finished articles.

The technical and financial details will be worked out as soon as possible in accordance with the general principles which have been agreed upon between the President and the Prime Minister (126).

95. On 13 May 41 the Canadian Government incorporated War Supplies Limited as a crown company under the Minister of Munitions and Supply to handle the sales of such munitions,

strategic materials, aluminium and ships to the United States (127). The ultimate destination of such items was the responsibility of United States authorities and there was nothing to prevent their being lend-leased to other countries.* Initially, purchases were solely of British-type stores for transfer to the United Kingdom under Lend-Lease and included vessels being constructed in Canada for the British Admiralty Technical Mission (128).

96. On 14 May it was announced that a Materials Co-ordinating Committee had been established, consisting of two representatives of the Department of Munitions and Supply and two representatives of the Office of Production Management; a consultative body only, its function was to further the pooling of the resources of both countries, particularly those raw materials that were in short supply (129). During June an earlier Canadian suggestion was followed up and Joint Economic Committees were established in both countries to study and report to the respective governments on the possibility of:

- (1) effecting a more economic, more efficient and more co-ordinated utilization of the combined resources of the two countries in the production of defence requirements (to the extent that this is not now being done) and
- (2) reducing the probable post-war economic dislocation consequent upon the changes which the economy in each country is presently undergoing (130).

Administrative functions were, however, left to the appropriate agencies already existing in the two countries.

97. On the other hand they did sponsor the creation of a Joint Defence Production Committee:

To survey the capacity and potential capacity for the production of defence matériel in each country to the end that in mobilizing the resources of the two countries, each country should provide for the common defence effort the defence article which it is best able to produce, taking into consideration the desirability of so arranging production for defence purposes as to minimize, as far as possible, and, consistent with the maximum defence effort, maladjustments in the post-defence periods (131).

Although this committee was created at the end of October its first meeting was held in Washington only on 15 Dec. With the United States now at war the name was changed to Joint War Production Committee. Nine important sub-committees were

*While undergoing training at No. 1 C.O.R.U., Bordon, Hants, in August 1943 the narrator was issued with a Rifle No. 4 Mk I, manufactured in Canada but stamped "Property of U.S. Army". Although Canada was not a recipient of Lend-Lease many of the requirements of the Canadian Army Overseas were met from British stocks, which often included Lend-Lease matériel.

established to deal with tanks and automotive vehicles, artillery, ammunition, small arms, chemicals and explosives, signals equipment, aircraft, naval and merchant shipbuilding, and conservation (132). Members of the sub-committees were the two senior executives responsible for the production programme in each country. These sub-committees facilitated the exchange of information, ideas and plans and maintained close relations with War Supplies Limited. The third meeting of the Joint War Production Committee in June 1942, and the last important one, led to the incorporation of Canadian war production requirements in the new military priority ratings created by the (American) Priorities Directive of 1942 (133).

98. Undoubtedly the aim was to integrate completely North American resources and facilities. Unfortunately, however, this was not possible. Canadian production was geared to British-type munitions and there was a limit, therefore, to the extent to which it could be adapted to American production schedules. However, it was suggested that Canada was attempting too much, including the manufacture of two types of tanks and several combat aircraft, when these could be produced far more efficiently in the United States. Moreover, the larger American industrial potential was better fitted to produce munitions which rapidly became obsolete and required both large numbers of skilled workers and specialized machine tools. Although Canada did cancel plans for producing aircraft engines, there was the obvious fact that over-specialization would make Canadian industry even more dependent on the United States and complicate the problem of conversion back to peacetime industry (134).

PART II - PRODUCTION AND ALLOCATION OF
MUNITIONS, 1942-1945

(1) Creation of Munitions
Assignment Boards

99. Pearl Harbor brought immediate changes. The United States now required greater quantities of munitions for its own Armed Forces while, at the same time, the needs of the British Commonwealth were intensified by the Japanese threat to South-East Asia and Australasia. Considering that the crisis necessitated personal talks with President Roosevelt, the British Prime Minister set out for Washington. He was accompanied by Lord Beaverbrook (Minister of Supply), Admiral Sir Dudley Pound (First Sea Lord), Air Chief Marshal Sir Charles Portal (Chief of the Air Staff), Field Marshal Sir John Dill (only recently replaced as Chief of the Imperial General Staff and now destined to remain in Washington), Lieutenant-General Gordon N. Maccready (A.C.I.G.S.) and a staff of lesser advisers. The so-called "ARCADIA" Conference got under way immediately after their arrival on 22 Dec 41.

100. Russia was too far away, both spiritually and physically, to be associated with the direction of the Anglo-American war effort and the British rightly refused to accept China as a great power. Irrespective of what was written into the United Nations Declaration, signed by representatives of 26 Nations on New Year's Day, 1942, President Roosevelt and Prime Minister Churchill were determined to keep control in their own hands. A Combined Chiefs of Staff organization was established to carry out their decisions. Although the British Chiefs of Staff met with their American counterparts only at the conferences convened by President Roosevelt and Prime Minister Churchill, they were permanently represented in Washington by Field Marshal Sir John Dill and the heads of the British Joint Staff Mission, who met with the United States Chiefs of Staff every Thursday as the "working body" of the Combined Chiefs of Staff. The bulk of the actual work was, however, done by several committees. These included the Munitions Assignment Boards established in Washington and London to allocate military stores in accordance with strategic needs.

101. During 1941 the prevailing view in Washington had been that American munitions should be allocated entirely by Americans. Immediately after Pearl Harbor President Roosevelt acted upon an earlier suggestion of Mr Harry Hopkins and created a Strategic Munitions Board to establish allocation and production programmes "to achieve sure and final victory" (135). Composed of Mr Hopkins, Admiral Stark and General Marshall, this Board was made responsible directly to the President. But it remained a paper organization and never held a formal meeting. General Marshall's responsibility was delegated to his Deputy Chief of Staff for Supply, Major-General R.C. Moore, who made item-by-item decisions on the release schedules which had been prepared since October by Colonel Aurand, the Defense Aid Director (see para 92).

102. Such a procedure was not, however, suited to the needs of a coalition war. On the supposition that the United States would meet a considerable proportion of British requirements for munitions, the United Kingdom had gone ahead and placed a far higher proportion of its available manpower in the Armed Forces than otherwise would have been possible. American strategy, so far as it had developed, was predicated on the British being furnished with American munitions. Very early in the discussions of the "ARCADIA" Conference a combined military supply committee began to meet informally. On 7 Jan 42 General Macready suggested a system of sub-allocation, whereby the free world would be divided into two spheres of influence, with the United States and the United Kingdom each looking after the needs of its own protégés. Allocations made in Washington to the United Kingdom would include the requirements of British protégés. Allocations to the U.S.S.R. would, however, continue to be based on the existing Moscow Protocol. The American authors of Global Logistics and Strategy 1940-1943 have commented as follows:

The basic principle Macready put forward was that equipment must be allocated according to the military situation and not "according to the origin of the order which produces it." A careful reading of his memorandum revealed, however, that he proposed a combined allocation committee in Washington to make bulk allocations to the British and their protégés out of American production, but a War Office, purely British, allocation committee in London to divide up these bulk allocations, as well as British production, among the Empire countries and the British protégés (136).

U.S. War Department and Lend-Lease officials viewed this proposal with suspicion and argued that any pooling arrangement should extend to British as well as American munitions.

103. When the British Chiefs of Staff put forward their scheme for continued collaboration at the formal meeting of the "ARCADIA" Conference on 13 Jan 42 they suggested that the newly authorized Combined Chiefs of Staff should "settle the broad programme of requirements based on strategic policy," and "from time to time issue general directives laying down policy to govern the distribution of available weapons of war" (137). Combined allocation committees should be formed to make allocations between the United States and the British Commonwealth, "each caring for the needs of Allies for whom it has accepted responsibility." The Americans were agreeable in principle, but insisted that they were not yet prepared to enter into a discussion of details. General Marshall emphasized that there could be no question of having any duplication in London of the Combined Chiefs of Staff organization. But, although there could be only one Combined Chiefs of Staff, who would give broad direction on the allocation of munitions, he saw no objection whatever to having parallel Allocation Committees in Washington and London deal with the allocation of American and British war materiel respectively. In view of the importance of the principle involved, and at the suggestion of Admiral of the Fleet Sir Dudley Pound, the following minute was drafted for submission to President Roosevelt and Prime Minister Churchill.

We, the Combined United States-British Chiefs of Staff, are agreed in principle that finished war equipment shall be allocated in accordance with strategical needs. We accordingly submit that an appropriate body should be set up, under the authority of the Combined Chiefs of Staff, in Washington, and a corresponding body in London, for the purpose of giving effect to this principle (138)

104. Meanwhile, Lord Beaverbrook had been urging a different scheme - the creation of a combined agency headed by Hopkins and himself to control both procurement and assignment. But, as this would have made Harry Hopkins virtual czar of the whole American war effort, it was politically unacceptable in Washington. Still, President Roosevelt was sufficiently impressed to draw up plans for a combined munitions assignment board which would be responsible directly to himself and Prime Minister Churchill. This board would be divided in two parts, one in Washington with Hopkins as chairman, the other in London with Lord Beaverbrook as chairman (139). But when President Roosevelt sought his opinion on the evening of 14 Jan, prior to the final session of the "ARCADIA" Conference, General Marshall stated that unless the proposed munitions assignment board was made responsible to the Combined Chiefs of Staff "he could not continue to assume the responsibilities of Chief of Staff" (140). No military organization could assume responsibility for operations if supplies essential to their conduct were placed under civilian control. He "saw no objection whatever to having parallel Allocation Committees in Washington and London dealing with the allocation of American and British war material respectively," but "there could be no question of having any duplication of the Combined Chiefs of Staff organization in Washington and London." Harry Hopkins supported this view, whereupon President Roosevelt agreed to accept the policy that had been recommended by the Combined Chiefs of Staff. At the subsequent session of the Conference Mr Churchill was forced to give way. Although theoretically adopted for a month's trial, in order to satisfy the British Prime Minister, the allocation machinery that evolved was to continue until the War was won. The Washington Munitions Assignments Board* became, in the words of Hopkins, a "sub-committee" of the Combined Chiefs of Staff who, if they "do not like the sub-committee's recommendations, can alter them or throw them out" (141).

105. "The theory of assignment," according to a document later issued by the London Munitions Assignment Board, was "that the entire production of Great Britain and the United States of America is pooled and divided among the United Nations in accordance with strategic needs" (142). Having once secured the total production figures to be dealt with by each Board the next step was to form an estimate of the total requirements of all claimants. The British Empire-

*Among British and American differences was the use of the words "assignment" and "assignments". Whereas there was a London Munitions Assignment Board the more important Washington body was known as the Combined Munitions Assignments Board or merely as the MAB.

Commonwealth and its European Allies were considered to be a "British Group", whereas China and the Latin American republics were in an "American Group". Russia continued as a special case, her current needs being handled under the Moscow Protocol. To summarize:

11. The requirements of the whole British group are thus ascertained in London. As far as possible, they are satisfied by assignments made by the London Board from British production. The surplus requirements which cannot be met in this way are submitted by the British Representatives in Washington to the Washington Board, where they are considered alongside the requirements of the American group. If desired, any member of the British group can instruct its Representatives in Washington to attend the meetings at which its requirements are being dealt with, and to reinforce the arguments put forward on their behalf by the British Representatives.
12. The Washington Assignment Board makes a bulk assignment to the British group. This bulk assignment is then allocated among the members of the group by the Board in London. If the assignment received from Washington is equal to the total of the demand put forward by the British group, the allocation would normally be the same as the individual requirements. If, however, a lesser assignment is received, then some further examination of the position is necessary in London before this lesser quantity is allocated. Throughout the whole process the criterion is the strategic need as assessed in accordance with instructions issued by the Combined Chiefs of Staff.
13. The process for assignments to the American group is exactly similar to that described above for the British group. The total requirements are received in Washington, and demands for assignments from British production are presented by the United States Representatives to the London Board. It would be open to representatives of other members of the United States group to back their demands if they so desired. The Washington Board makes assignments to the American group from United States production and allocates the bulk assignments received from London.
14. The great majority of the work of assignment is carried out by the Sub-Committees of the two Boards. These are composed of the experts from the Service Departments,

who know the technical details of the scales to be maintained, and the wastage to be made good, and who are aware of the state of the forces in the different theatres. It is to those Sub-Committees that in the first instance the claims of the group are submitted. In the event of any claimant feeling that due consideration has not been given to his demands, or that having regard to rival claims and to the total amount of material available, the assignment made is insufficient, the matter would come before the Board for further examination. The representative of the aggrieved claimant would, of course, receive a hearing at the Board.

15. If a ruling on strategic priority were then required reference would be made to the Combined Chiefs of Staff. At the same time the civilian Chairman would impart to the Board any relevant information as to the policy of the British and United States Governments as affecting the issue. If a satisfactory settlement could not be reached by the Board the matter would in the last resort be referred to the Prime Minister and the President for decision.

16. The aim of the Assignment Boards at present is to make short-term assignments for one month ahead, and provisional assignments for two months beyond that. As soon as it can be managed this process should be extended so that, at any rate in the principal items, long-term provisional assignments will be available to serve as a basis of planning (143).

106. Apart from Mr Harry Hopkins (chairman), the Munitions Assignments Board in Washington consisted of an equal number of American and British officers. Originally these were Admiral W.H. Standley, U.S.N.* (a former Chief of Naval Operations), Major-General R.C. Moore (Deputy Chief of Staff for Supply), Major-General M.F. Harmon (Chief of Air Staff, U.S.A.A.F.), Admiral Sir Charles Little, R.N., Lieutenant-General Sir Colville Wemyss and Air Marshal D.C. Evill, R.A.F. The executive officer was Major-General James H. Burns, U.S. Army who headed a permanent staff and secretariat. Tentative decisions were reached by the Munitions Assignments Committee (Ground), Munitions Assignments Committee (Navy) and Munitions Assignments Committee (Air) - each headed by an American service representative. The last named Committee took over the assignment functions hitherto handled by the Joint Aircraft Committee (which continued to

* Replaced by Rear Admiral J.M. Reeves, U.S.N. on 11 Feb 42.

function as a sub-committee). The Munitions Assignments Board acted largely as a court of appeal, when agreement could not be reached in the Committees, and laid down the policies to be followed, subject to direction from the Combined Chiefs of Staff. Nevertheless, all assignments had to be formally approved by the Board before becoming effective.

107. Brigadier-General Aurand was the first Chairman of the Munitions Assignments Committee (Ground), with membership coming from the War Plans Division (subsequently renamed Operations Division) of the U.S. War Department and the British Army Staff. His own Defense Aid Division provided the secretariat, which handled the routine work of compiling transfer schedules. On 9 Mar 42 the Office of the Defense Aid Director was incorporated into Lieutenant-General Brehon B. Somervell's "sprawling" Services of Supply organization, created by the War Department on that date. A month later it was redesignated International Division but without any change in organization or function. In mid-July Aurand was transferred to the staff of the Combined Production and Resources Board (see para 135) and General Somervell placed the International Division under Brigadier-General Lucius D. Clay, his Assistant Chief of Staff for Materiel, who also became chairman of the M.A.C.(G). On 12 Mar 43 the Services of Supply was renamed Army Service Forces. The Munitions Assignments Committee (Ground) met once a month to approve the recommendations of its several sub-committees* regarding the assignment of items on the Army Supply Program (see para 112), but once a week to consider the assignment of "spot items" (small quantities of experimental equipment or quantities to replace munitions lost in transit through enemy action) (144). As of 1 Jul 43, however, all but five of its sub-committees were replaced by War Department Conference Groups (145). A special Radar and Communications Coordination Committee, with U.S. Army, Navy, Army Air Forces and British representatives, was established; although in a sense independent, it reported assignments through the M.A.C.(G). Once the transfer of a particular item had been approved officially by the Munitions Assignments Board, the Services of Supply became responsible for its physical movement (146).

108. But because the original directive issued by President Roosevelt and Prime Minister Churchill was "insufficiently specific" there continued to be disagreements in Washington (147). The head of the Requirements Section of the Canadian Army Staff later wrote:

* In addition to the sub-committee dealing with agenda there were the following separate sub-committees: engineers, tractors (crawler), trucks, transportation (railroad equipment), tanks, signals, communications and radar, quartermaster, medical, explosives, chemical warfare and amphibious vehicles. These all included British representation.

Basically, the British took the stand that all equipment should be allocated strictly in accordance with strategic necessity while many of the Americans considered themselves to be at the council table for the prime purpose of protecting the interests of the U.S. Forces. The latter view was voiced in no uncertain terms by the OPD [Operations Division, War Department General Staff] representative at a memorable meeting of the Munitions Assignments Committee (Ground) when he shouted "We don't assign U.S. production to the United States Army; we take what we need and place what is left on the assignment table" (148).

The United States Army historical volume entitled The Organization and Role of the Army Service Forces has this to add:

In practice, though it was never officially stated, the ASF [Army Service Forces] and other U.S. Staff agencies concerned evolved the "residual" theory to replace that of the "common pool." Simply stated, this principle assumed that each country had primary responsibility to produce all munitions required for itself, and that each country had first call on its own productive capacity. For obvious reasons, the British clung to the theory of the "common pool" (149).

However, according to Robert Sherwood's Roosevelt and Hopkins:

All those involved in the Munitions Assignment Board seem to agree that whenever Hopkins was well enough to give it his personal attention it worked harmoniously: when he was too ill as he often was or too preoccupied with other matters to preside over its deliberations there was apt to be strife aplenty among the diverse, competitive factions involved. However, the fact remains that it worked: it handled the tremendous and bewildering job of allocating the supply of materiel to all of the services, all of the Allies, all of the various theatres of war....(150).

109. The Chairman of the London Munitions Assignment Board was Rt. Hon. Oliver Lyttelton, who succeeded Lord Beaverbrook in the supervisory post of Minister of Production on 24 Feb 42. The original service members were Rear-Admiral R.R. McGriger (Assistant Chief of the Naval Staff (Weapons)), Lieutenant-General G.N. Macready (Assistant Chief of the Imperial General Staff), Air Chief Marshal Sir Christopher L. Courtenay (Air Member for Supply and Organization) Colonel Earle. M. Wilson, U.S.A., Colonel A.J. Lyon, U.S.A.A.F. and Captain T.A. Solberg, U.S.N.; Colonel E.I.C. Jacob of the War Cabinet Secretariat served as Secretary. There were five sub-committees for the actual work of allocating Navy, Army, Air and R.D.F. (Radar) stores and Small Arms Ammunition but these did not include regular American representation. Subsequently a further sub-committee was created to deal with Engineer Stores. In contrast to the policy adopted in Washington, where the Munitions

Assignments Board assigned all munitions right down to single rifles for test purposes, the British subjected only controlled stores in critical supply to the machinery of the London Munitions Assignment Board (151). Like the Munitions Assignments Committee (Ground) in Washington the Army Assignment Sub-Committee, presided over by the A.C.I.G.S., dealt with items common to the three Armed Forces. This Committee, it might be noted, was merely a successor to the War Office committee which hitherto had been assigning controlled stores under the supervision of the same General Macready (see paras 55-56). Much of the routine procedure was handled by two new American Liaison and Munitions sections established within the General Staff Branch of the War Office. Items not in short supply were distributed by other War Office committees in accordance with current requirements. The committees of the London Munitions Assignment Board were allowed to make final assignments, where there was no dissent, and the L.M.A.B. met only occasionally as required, rather than regularly as did the M.A.B. in Washington. As the authors of the U.S. Army volume on Global Logistics and Strategy 1940-1943 have pointed out:

Since American bids against British production were never of large proportions, the combined aspects of the LMAB's operations were never so important as those of the Washington board. It concerned itself primarily with allocations to the nations of the British Empire, those assumed to be within the British sphere of responsibility, various agencies of the British Government, and theatres of operations in British areas of responsibility - all matters that, during 1942, the Americans were satisfied to leave under British control (152).

110. But how was the Anglo-American munitions pool to be divided? With most of their forces already trained and deployed in threatened areas the British insisted that first priority must be given to existing theatres of operations: actual delivery of munitions in 1942 was of much more importance than promises of American manpower for campaigns during 1943 and 1944. Though willing to make some concessions to the British, the Americans considered that their own programme of preparing a vast Army for future operations should constitute a first charge against American production. The British Army Staff protested the early actions of the Munitions Assignments Committee (Ground) giving priority to American needs and came up with a proposal based on the principle that "the provision of full equipment for existing units available in or about to proceed to an active theatre of war, or to one immediately threatened, is... the first charge on available assets, in such order or priority as may be assigned the various theatres" (153). After considerable discussion a compromise proposal was drafted by the Combined Staff Planners and approved by the Combined Chiefs of Staff on 24 Mar 42 as a strategic guide to be followed by the Munitions Assignments Board. While all naval theatres could not be considered of equal strategic importance, mobile naval forces were assigned in accordance with strategic needs and, therefore, munitions must be allocated to navies in accordance with overall requirements. Since all naval forces were presumed to be continuously engaged in active operations, allocations to them were considered as having equal priority

with land and air forces in active theatres or projected for active theatres. The following air units were given the same priority as naval forces:

- (a) Air units operating primarily for the protection of sea and air communications.
- (b) Air units which are a part of, or which operate primarily in support of, naval forces.
- (c) Air units provided for defence against air or seaborne attack (154).

Priorities for other air and land forces by theatres were:

Priority "A"

Middle East - continuous major operations.
India-Burma-Ceylon - continuous major operations.
Australia - continuous major operations.
New Zealand and Pacific Islands on the lines of communication from the U.S. - major operations for 2 months.
United Kingdom as regard air operations - continuous major operations.

Priority "B"

Hawaii - major operations for 2 months.
United Kingdom as regards land operations - major operations for 2 months.

Priority "C"

Africa, except the Middle East, Alaska, Iceland and Greenland, United States and Canada, South America including the Caribbean - air or sea borne raids.

"Amounts of munitions assigned to theatres," it was stressed, "should be based on the size of forces actively engaged and the existing state of their equipment; the probable period of active operations; and the probable character of the operations." Military units were to be issued with 100 percent of their equipment if in an active theatre of operations, if being sent to one within three months, or if vital to home defence. The training scale was to be 50 percent, on an equal priority with theatre needs. Only once were theatre priorities ever revised, however - in June 1942 when an "A" priority was given to the "BCLERO" build-up of U.S. supplies in the United Kingdom for a Cross-Channel attack. Moreover, considerable latitude was left for the interpretation of this directive in Washington: the "approach to allocation was pragmatic rather than doctrinaire, and the assignment of critical items each month often brought forth the same conflict of views that was evident in the shaping of the original directive" (155).

111. The periodically revised Consolidated Statement of British, American and Canadian Production (see para 83) came to provide an increasingly accurate guide as to the quantities of munitions that would be forthcoming but it was to be almost a year (Casablanca Conference) before the Combined Chiefs of Staff were able to begin providing the Munitions Assignments Board in Washington with strategic, long-term forecasts of when and where the Armed Forces of the United Nations would be employed (156).

112. As regards the production of finished military stores by American industry, the United States Army established an Army Supply Program to cover requirements for each calendar year and, for planning purposes, the following year. This Army Supply Program, which was subject to revision every six months, was prepared under the direction of General Clay (157). Total British Empire requirements were consolidated by the War Office and the British Army Staff in Washington then endeavoured to secure agreement that the portion which could not be met from British and Imperial production should be included in toto in this United States Army Supply Program (158).

113. The provisions of the Combined Chiefs of Staff directive of 23 Mar 42 on munitions assignment were never, however, related in more than a general sense to the allocation of aircraft (159). Although the successive Russian protocols constituted a first charge on American aircraft production during most of the war, the British remained the chief foreign recipient of American aircraft and master allocation agreements were made at intervals (generally semi-annually after 1942) between General H.H. Arnold and Rear Admirals J.H. Towers or J.S. McCain on the one hand and Air Chief Marshal Sir Charles Portal and his principal subordinates on the other (160). When it was realized that the Arnold-Portal Agreement of 13 Jan 42 (preceding the creation of the Combined Munitions Assignments Board), specifying a month-by-month allocation of planes to the United Kingdom during 1942, would leave the United States with an increasing surplus of trained aircrew in excess of combat aircraft, President Roosevelt was persuaded to issue a statement on 20 May that "American built combat planes in all the various theaters of the world would in general be manned and operated by American personnel the chief exception would be Russia, where because of "geographical, logistic, and racial problems the American planes will in general be flown and maintained by Russians" (161). Although the subsequent Arnold-Portal-Towers Agreement of 21 Jun 42 was essentially a compromise between the British and American positions, the allocation to the former was scaled down substantially from almost 7000 to little more than 3000 aircraft for the balance of 1942. Subsequent master allocations, made necessary both by the rapid acceleration of American aircraft production and the ever-changing strategical situation, were the Arnold-Evill-McCain-Patterson Agreement of December 1942, the Arnold-McCain-Courtenay-Portal Agreement of July 1943, the Arnold-Courtenay Agreement of February 1944, and further reviews in July and November 1944 (162). Following approval by the Combined Chiefs of Staff these master allocations were used by the Munitions Assignments Committee (Air) of the Washington Munitions Assignments Board as a guide in making monthly assignments during the period covered.

114. Naval production was handled differently. Battleships, cruisers, aircraft carriers other than auxiliary carriers, destroyers and submarines were not subject to assignment, since these were built to national designs and were not readily interchangeable between navies. Minor war vessels, such as escort vessels, minesweepers and smaller craft, and stores did come before the committees. Generally a tentative assignment was made six months before and a firm assignment one month before completion(163).

(ii) Canada's Failure to Achieve
Membership on the Munitions
Assignments Board in Washington

115. The first information to reach Ottawa of the decisions of the "ARCADIA" Conference was unofficial, emanating from the Canadian Legation in Washington and from a conversation Prime Minister King had with Field-Marshal Sir John Dill. Although Mr King conceded, during the latter's visit to Ottawa on 21 Jan 42, that representation on the Combined Boards had to be limited, he was emphatic that Canada's interests should not be ignored. After all, she had been a belligerent since 1939.

116. Only on 27 Jan 42 did the British Government despatch telegrams to advise the several Dominions officially of the decision to form Combined Boards(164). A telegram the following day suggested that the Dominions might appoint liaison officers to keep in touch with the Chiefs of Staff Committee and other purely British bodies in London(165). The proposal that Dominion Liaison Officers "should be taken into consultation by" the London Munitions Assignment Board was, however, far short of Canadian aspirations (166).

117. On 4 Feb the Cabinet War Committee commented unfavourably upon the announcement that Munitions Assignments Boards in Washington and London would be composed only of British and American representatives. Mr Howe told the members at their next meeting, on 12 Feb, that he had been asked to join neither the Munitions Assignments Board nor the Combined Raw Materials Board. But, he added, since Canada had more to sell others of the United Nations than she needed to buy, he was not worried. The Minister of National Defence argued that since Canada had not been consulted in the formation of the combined bodies in Washington there was no need for her to be included in their plans for the allocation of munitions and raw materials.

118. During these days the views of the Canadian Chiefs of Staff appear to have undergone considerable elaboration. In a draft memorandum of 3 Feb they had recommended that Canada should be represented on the Washington Munitions Assignments Board, which would become responsible for satisfying her needs from North American production. In their opinion, and based on suggestions made earlier by representatives of the British Chiefs of Staff, Canada should also have full representation on the London Munitions Assignment Board ("and we already have in fact an Army representative") (167). Furthermore:

We consider that our representatives on both Washington and London Munitions Assignment Boards should work with and in the same offices as the British and other Commonwealth representatives, through the representatives of the Canadian Chiefs of Staff they would have the right of appeal to the Canadian Government in the event they consider that at any time Canada's needs are not being adequately met.

But the letter they actually submitted to the Ministers of National Defence on 14 Feb substituted the following:

9. In our opinion the principles involved in respect to pooling are as under:-
 - (i) Completed equipments should be distributed in accord with strategic need.
 - (ii) The Canadian Government cannot, in spite of (i), divest itself of responsibility regarding the equipping of our own forces at home and abroad.
10. The principles defined above are in conflict, and can only be reconciled in application by Canada insisting upon equal representation with the U.K. and U.S. on the Joint Munitions Assignment Boards in Washington and London. If equal representation is agreed to by the U.S. and the U.K., then we consider that Canada should join the U.S.-U.K. pool in respect to:-

All completed armament and war equipment manufactured in Canada whether to Canadian, British, United States or other order.

11. If equal representation on the Joint Munitions Assignment Boards is not agreed to by the U.S. and the U.K., then the only alternative is for Canada to retain the right of allocation in respect to all completed armament and war equipment manufactured in Canada whether to Canadian British, United States or other order (168).

119. A telegram of 18 Feb, from the Secretary of State for Dominion Affairs, suggested that Canada should associate herself with the British Group of Nations and pool her production in London. Canadian requirements would be decided in London by direct consultation between British and Canadian representatives; the latter would help compile the bulk demands to be submitted by the British to the Munitions Assignments Board in Washington, where Canadian representatives could reinforce these demands. Under this plan the United States would bid in London for its requirements from Canadian production (169). There was no question, however, of extending actual membership to Canada on the London Munitions Assignment Board.

120. In the belief that Canadian concurrence would be forthcoming, the practice initiated by War Office Committees during 1941 of including Canadian production in their monthly allocations was continued (see paras 57, 158 and 178). A telegram of 21 Feb from the Secretary of State for the Dominions requested that an R.C.A.F. officer attend meetings of a new Air Assignment Sub-Committee (170). Since the Air Ministry already was responsible for providing training aircraft and equipment for the British Commonwealth Air Training Plan and had agreed to provide operational aircraft for R.C.A.F. home defence squadrons from its bulk allotment from American production (see para 41), the Chief of the Air Staff was willing to go along until such time as the Canadian Government should have reached a decision on pooling (171). A telegram of 3 Mar furnished R.C.A.F. Overseas Headquarters in London with Canadian production figures for its representative to take to the first meeting of the Air Assignment Sub-Committee: "after explaining Canadian position [you] may make known Canada's requirements without prejudice to any further action the Canadian Government may decide to take" (172). Following this meeting of 7 Mar, at which assignments were made firm for March, and provisionally for April and May, Ottawa was advised that this Sub-Committee was operating on the principle that Canadian production was to be thrown into the pool together with British and American production and that the Canadian requirements for home operational squadrons, B.C.A.T.F. Schools and R.A.F. Transferred Schools would be registered against the common pool created by the production of all the countries represented (173).

121. During January Colonel W. Mavor, Director of Ordnance Services (Technical Stores) at National Defence Headquarters in Ottawa, had been sent to Washington to survey the changed situation as regards the fulfilment of existing contracts from American production. As a major and lieutenant-colonel he had earlier served in Washington as Technical Adviser to both the Canadian Military Attache and the Department of Munitions and Supply's U.S. Director of Technical Procurement. Colonel Mavor now began to work closely with the Assignments and Requirements Branch of the British Army Staff, having acquired an office in the same building. As a matter of courtesy Brigadier D. Campion took Colonel Mavor to meetings with Colonel Aurand when Canadian matters were being discussed (174). Thus, when Colonel Mavor received an allocation request from the Department of Munitions and Supply for finished military stores, with a supporting Canadian General Staff brief, he was able to have it included in the British bulk bid presented to the Munitions Assignments Committee (Ground) (175). Early in February Air Commodore S.G. Tachaberry, Air Member for Supply at Air Force Headquarters, arrived in Washington on a similar errand. Although his instructions had been to follow the course being pursued by Colonel Mavor he found that the R.A.F. Delegation was not anxious to provide him with similar facilities, contending that the existing arrangement whereby its officers handled the requirements of the R.C.A.F. was satisfactory (176).

122. With Canada now being asked to approach Committees of the Munitions Assignments Board for its requirements in finished military stores from American production through the British representatives, the Director-General of the Department of Munitions and Supply office in

Washington, Mr J.B. Carswell, recommended to Mr Howe in a letter of 19 Feb that a small group of Canadian officers should be sent to become "in reality" part of the Army Requirements branch of the British Army Staff (177). Mr Carswell considered that aircraft procurement procedures should not be changed since, for the past 18 months, there had been a strict system of allocation by joint Anglo-American committees on which the Department of Munitions and Supply was represented (see para 73). However, the Canadian Air Attaché, Air Commodore G.V. Walsh, argued in a letter of 24 Feb to the Chief of the Air Staff in Ottawa:

...it is logical that R.C.A.F. requirements should also be based upon strategical considerations. It is apparent that the Royal Canadian Air Force should be represented on the Royal Air Force Staff in Washington in a manner similar to that proposed for the Army, in respect to the British Army staff in the United States, since strategical requirements can be interpreted and presented satisfactorily only by Service personnel (178).

At the moment Air Commodore Tackaberry was able to attend meetings of the Munitions Assignments Committee (Air) with Air Commodore E.B.C. Betts of the R.A.F. Delegation (179). In a later memorandum of 27 Mar the manner in which aircraft were assigned to Canada was outlined by Air Commodore Walsh as follows:

The requirements of the British Empire are considered first in London, and those which cannot be made from Imperial production, are notified to the R.A.F. Delegation in Washington, so that the necessary allocations may be sought from production in the U.S.A. Insofar as these requirements can be met from allocations of production in U.S.A. which have already been made to the British, and insofar as the prospect of production will meet the requirements, the R.A.F. Delegation have been instructed to regard the advice from London as the equivalent of executive instructions for the current month. Where however allocations are not available, or where the requirements as notified by London exceed the probable production, reference is made to London for fresh instructions (180).

123. During late February and early March Mr Howe and Mr L.B. Pearson (Department of External Affairs) were in Washington investigating how Canada might become more closely associated with the Combined Munitions Assignments Board (181). Major-General M.A. Pope arrived in Washington on 6 Mar to serve as representative of the Cabinet War Committee with the Combined Chiefs of Staff and the United States Joint Chiefs of Staff. When the Cabinet War Committee approved his appointment on 11 Mar it was in the knowledge that full and formal Canadian membership on the Combined Chiefs of Staff was not possible. It was felt, however, that the right of representation was necessary when any question affecting Canada was under discussion. Although only one service representative was acceptable to the Americans, it was considered that a Royal Canadian Naval

or Air Force officer might replace General Pope whenever naval or air matters were being discussed. (Early in July the American Government did agree to the establishment of a Canadian Joint Staff in Washington, headed by General Pope.)

124. However, it remained for Colonel Mavor to uncover what seemed to provide a satisfactory solution as regards munitions assignment. On 10 Mar he had important discussions with Brigadier Campion and Brigadier-General Aurand. According to the report despatched to Ottawa on 13 Mar by Hon. Leighton G. McCarthy, Canadian Minister to the United States, Brigadier Campion recognized that there were many points in favour of tabling Canadian production in Washington; personally he felt that such a course would present no more difficulties than pooling in London. General Aurand's personal opinion was that Canada should pool her production in Washington. He pointed out that, arising from the Hyde Park Declaration, the recommendations of the Joint War Production Committees (approved by the United States and Canadian Governments in December 1941) had included agreement that:

The production and resources of both countries should be effectively integrated and directed towards a common program of requirements for the total war effort. Each country should produce those articles in an integrated program of requirements which will result in maximum joint output of war goods in the minimum time (182).

General Aurand considered that the production of military stores in the two countries was so inter-dependent that it was not practicable to allocate Canadian production in London and American production in Washington. Moreover, the shipping of military stores was a problem that could not be handled separately from assignment and would be easier to arrange direct from North America. Unofficially, of course, he believed that the United States Government would agree to Canada having equal representation on the Munitions Assignments Board and that the Canadian representative on the Munitions Assignments Committee (Ground) could act as joint chairman with himself. In order that orders from others of the United Nations might be channelled through one organization and allotted to the most desirable production source, he further suggested that Canada should be represented on the (American) Defense Aid Supply Committee, which consolidated all requirements for the International Division of the Services of Supply. General Macready, who was again visiting Washington, later joined in the discussion and told Colonel Mavor that he did not feel that it mattered where Canadian production was tabled. Mr McCarthy's telegram supported Colonel Mavor's recommendation that the United States Government be approached along the lines suggested by General Aurand: in short, Canada would do better in Washington than in London, where there would be greater pressure to treat all Dominions equally (183).

125. On 16 Mar the opinion of the High Commissioner in London was sought as to the validity of these arguments (184). Two days later the High Commissioner replied, supporting General Aurand's suggestion that it would be much more satisfactory on practical grounds to pool Canadian production in Washington (185). Thereupon, the Canadian Government seems to have reached a decision.

126. On 20 Mar a telegram was despatched to advise the British Government that Canada wanted to pool her production in Washington, as an equal member of the Combined Munitions Assignments Board. The reasons advanced included the close relationship between Canada and the United States in war production and related fields, the common problem of overseas shipping and the ease and speed of communication with Washington. On the other hand, if Canadian production were pooled in London, it would be necessary for Canada to have her requirements included in an Empire bid there, then support this bid in Washington for items from American production and present claims in London for re-allocation from the Empire bulk allocation. It might also be difficult, through London, to control the assignment of items manufactured in Canada for delivery to the United States (186).

127. The British reply raised some interesting arguments in favour of pooling Canadian production in London. A great deal of Canadian war production had been planned and developed as part of the Commonwealth war effort and the largest proportion of current deliveries were being made to the United Kingdom. Summing up, this telegram continued:

Taking the whole range of navy, army and air force equipment of British type manufactured in Canada the administrative disadvantages of assignment in Washington are clearly very great....

If your production were pooled in London you would bid direct in London for all your needs from British and Canadian production. As to your needs from United States production, it is true that they would be placed together with ours and with those of the other members of our Group and presented together in Washington. But we think this would be greatly to your advantage as we should all be speaking with one voice and all supporting the claims of our Group with full knowledge of our combined case. If, on the other hand, you pool your production in Washington and bid there direct you will be competing not only against the United States but also against the rest of the British Empire who, for lack of knowledge, will be unable to support your claim....

While recognizing the close relationship between Canada and the United States, both on production and on defence matters generally, we think that there are also extremely close ties between Canada and the United Kingdom alongside whose forces the greater part of the Canadian forces are operating (187).

128. On 24 Mar General Macready had, however, told General Pope that he was agreeable to the idea of Canadian production being pooled in Washington, provided that Canada did not want to bid separately for the requirements of the Canadian Army Overseas (188). On 31 Mar Colonel Mavor discussed the British counter proposals with General Macready, who said that he had not seen them before. The latter made the following suggestions, which were transmitted to Ottawa:

It is impractical to table Canadian production in London. General Macready is leaving shortly for England and he will doubtless express this opinion to the authorities in London in the light of his experience in Washington and Ottawa of the working of the procedure of munitions assignments.

There is a very strong case for assigning in Washington finished military stores from North American production to be used for the Home Forces in Canada.

It is recognized that some difficulties may be experienced in separately assigning in Washington the requirements of the Canadian Army in England. These difficulties, however, would be removed if the final agreement covering the tabling of Canadian production in Washington includes the following provision: a bulk bid would be made by the British Commonwealth for all their requirements, including the Canadian Army in England, except the requirements of Canadian Home Forces, and a bulk assignment would be made in Washington; inside this bulk assignment the requirements of the Canadian Forces in England would be specified, and an allocation of this specific quantity would only be changed by the London Munitions Assignment Board after approval by Canadian Military Headquarters, London, having in mind the military situation and the advantage in certain cases of supply from United Kingdom rather than North American production (189).

Although General Macready had emphasized that he was speaking only from an Army viewpoint and that his views could not be regarded as covering all three Services, Mr Hume Wrong of the Canadian Legation suggested in a telegram to Ottawa that this opinion should carry great weight in London (190).

129. A proposal was worked out along these lines in Ottawa and approved by the Cabinet War Committee on 8 Apr 42. On the following day it was transmitted to London, the telegram pointing out that:

We would not anticipate that the Washington Board would be likely to take a position in respect of either Canadian or United Kingdom requirements to be met from Canadian production different from that which would be taken by the London Board (191).

It then proposed that all Canadian production should be tabled in Washington, along with American production. Canada would bid in Washington for its own requirements in finished military stores for the North American Area from this total production. The bulk bid made on Washington by the London Munitions Assignment Board would cover all Commonwealth requirements, except those of Canadian forces in the North American Area. Within the bulk allocation made

in Washington the Combined Munitions Assignments Board would state the specific allocation for the Canadian Army Overseas. No change would be made in this specified allocation by the London Munitions Assignment Board except with the concurrence of the appropriate Canadian authorities. "Naturally", the telegram continued, "in considering whether concurrence should or should not be given the Canadian authorities would keep in mind the general military situation, and the advantage in certain cases of supplying Canadian forces overseas from United Kingdom rather than North American production." Canada wanted equal representation with the United States and the United Kingdom on the Washington Board and to be represented before the London body as were the other Dominions (192).

130. During the course of Prime Minister King's visit to Washington, to attend a meeting of the Pacific War Council on 15 Apr, he obtained President Roosevelt's verbal acquiescence to full Canadian membership on the Combined Munitions Assignments Board.

131. The British reply was delayed, however, until General Macready was available in London for consultation. Only on 22 Apr was the Canadian High Commissioner able to advise Ottawa that the British Government had agreed to support the Canadian request for full membership on the Munitions Assignments Board in Washington. Canadian requirements in the North American Area from British production would, however, have to be tabled in London as part of the bulk bid from Washington. Canada would bid in Washington for all aircraft and equipment for use in Canada but the requirements of the R.C.A.F. overseas, which was operationally an integral part of the R.A.F., would be handled by the Air Ministry. As far as the British Government was concerned the new procedure might take effect in May, when meetings would be held to distribute June production (193).

132. For the time being, however, the ad hoc committee in Ottawa continued allocating Canada's production of military controlled stores until full membership should be obtained on the Munitions Assignments Board in Washington (see paras 157-158). Instead of continuing with the plan to "infiltrate" individual Canadian officers into several sections of the Assignments and Requirements Branch of the British Army Staff in Washington (194), General Pope and Colonel Mavor now began to plan the establishment of a similar Assignments and Requirements Branch for the Canadian Army Staff. In this last, Colonel Mavor received the "cordial assistance and advice" of General Aurand (195). On 21 Apr the Minister of National Defence for Air approved the formation of a corresponding R.C.A.F. Requirements Branch (subsequently renamed The Canadian Assignments and Requirements Branch (R.C.A.F.)) under Air Commodore Tackaberry (196). Pending direct representation on the Munitions Assignments Committee (Air) the new R.C.A.F. Branch was to deal directly with the corresponding branch of the R.A.F. Delegation (197). Following the example set by the British missions in Washington it was agreed that the Navy and Air Force should submit their requisitions for stores common to the three Services to Colonel Mavor who would arrange through the British Army Staff for a bulk assignment to be obtained from the Munitions Assignments Committee (Ground) (198). But, on the incorrect

assumption that Canada fell within the strategic responsibility of the United States, the Air Ministry came to consider that it no longer had any responsibility for meeting Canada's home defence needs from its own allocation of American-built operational aircraft. The Arnold-Portal-Towers Agreement of 21 Jun 42 merely emphasized its view that R.C.A.F. home defence requirements would have to be satisfied by the United States (199).

133. The Canadian Minister in Washington and his advisers thought that, "in the light of the character of the United Kingdom representation", it would be sufficient if General Pope became a member of the Combined Munitions Assignments Board, perhaps with provision for supplementary representation from the other Services, since most of the actual work of assignment was conducted by the three Munitions Assignments Committees (200). A telegram of 23 Apr emphasized that:

Canada must, however, be well represented on the Ground and Air Committees. We have here little information on Canadian naval requirements; up to the present they seem to have secured their finished military stores from the United States through the Department of Munitions and Supply. Now that assignment has become a military function, it would seem necessary that our naval requirements should be presented to the Munitions Assignments Committee (Navy) (201).

Colonel Mavor was available to represent Canada on the Munitions Assignments Committee (Ground) while Air Commodore Tackaberry would perform a similar function on the Munitions Assignments Committee (Air). Subsequently it was decided that, for the time being at least, Canada might be represented at the Munitions Assignments Committee (Navy) by its Assistant Naval Attaché (202).

134. Certain financial considerations had to be faced, however: "if Canadian production to United States order is diverted without some assurance being received for payment in dollars as originally contemplated, our financial position vis-a-vis United States will be greatly compromised" (203). The Minister of Finance and his Deputy journeyed to Washington during the first week in May and managed to reach a modus vivendi with their opposite numbers (204). On 13 May Mr McCarthy raised the question of Canadian membership with President Roosevelt, who promised to take it up with Harry Hopkins at once. On the same day the Canadian proposals were formally handed to Under Secretary of State Sumner Welles (205). Mr McCarthy's letter sketched the problem historically, stressing the interdependence of Canadian and American production and emphasizing that in December 1941 both Governments had approved a resolution of the Joint United States-Canada War Production Committee that "the production and resources of both countries should be effectively integrated and directed towards a common programme of requirements for the total war effort" (206).

135. Whether or not the Canadian request would be granted, seems to have depended purely on the attitude of Harry Hopkins.* The Canadian Minister soon discovered that Mr Hopkins was opposed to the idea of Canadian membership: the Munitions Assignments Board was working smoothly and he did not want to run the risk of upsetting it in any way (208). Mr Hopkins told Mr McCarthy on 8 Jun that Canada was asking too much and that he would re-write parts of the letter in a manner that would be acceptable (209). On 26 Jun the Canadian Minister transmitted such a letter to Ottawa. After suggesting that Canadian representatives need merely be given "full opportunity" to present their needs and views to the Board and its committees, Mr Hopkins had written as follows:

It seems to me that actual membership on either the Sub-Committees or the Munitions Assignments Board itself, whether by one member or several, can lead only to many difficulties. This is due to the fact that other nations do produce munitions, though

*It now appears that Canadian representatives in Washington had been wrong in assuming that the views expressed by Brigadier-General Aurand on 10 Mar were those of more senior American officials. General Somervell had been associated with Mr Harry Hopkins in the days of W.P.A. and, as Commanding General of the Services of Supply, his star was now definitely in the ascendant. Although General Somervell did not become a member of the Munitions Assignments Board until August 1942 his dominating personality was making itself felt much earlier. According to the authors of Global Logistics and Strategy 1940-1943:

General Aurand left the International Division in July to become part of the executive staff of the newly formed Combined Production and Resources Board, and with his departure the initiative in lend-lease affairs passed to Generals Somervell and Clay. Aurand had been the ablest defender of the lend-lease principle within the War Department and was a far more convinced advocate of the common pool theory than either Somervell or Clay. They recognized the importance of lend-lease as an instrument of coalition warfare as well as Aurand, but their experience and orientation was towards supplying the U.S. Army first and they tended to subordinate lend-lease to this end. They preferred direct action within the confines of the SOS staff to the involved deliberation of combined committees. In sum, the new management adopted a more national outlook, aimed at preventing foreign raids on the U.S. supply pool. Possession of the administrative machinery for War Department lend-lease operations enabled the SOS staff to make that outlook felt in decisions rendered at a high level on the distribution of American-made munitions (207)

not in the quantity of Canada, and, indeed, in modest ways some of these munitions are exported.

My own feeling is that it is far more important that Canada be related properly with the Combined Production and Resources Board which has just been organized and I am attaching a letter which I wrote to Mr. Nelson about this (210).

Mr McCarthy requested direction as to what he should reply to Mr Hopkins about the suggestion that Canada should seek membership on the Combined Production and Resources Board, headed by Mr Donald Nelson and Rt. Hon. Oliver Lyttelton. He further urged that action should be taken to secure membership on the Combined Food Board that also had been recently established (211).

136. Only on 2 Jul was a reply despatched from Ottawa. Mr McCarthy was directed to see Harry Hopkins personally and, if the latter was not sufficiently impressed with the national importance of the problem, take up the matter with President Roosevelt, Secretary of State Cordell Hull or Sumner Welles. The Canadian public was aware that a request had been made for membership on the Munitions Assignments Board and the Government was afraid that a growing number of citizens would become annoyed by the fact that Canada was not being fairly represented in the councils of the great. The question of membership on the Combined Food Board was postponed until later. However:

With regard to Mr Hopkins' suggestion that Canada should be "related properly with the Combined Production and Resources Board" our feeling is that we have developed reasonably satisfactory methods for co-ordinating our production programme with the programmes of the United Kingdom and the United States and for the present we are not inclined to seek membership on this Board. We regard this Board as being primarily a means of co-ordinating production in the United Kingdom and in the United States and thus filling a gap in the arrangements between the three countries. We wish, however, to reserve our position with respect to membership in the Board so that we shall be free to advance a request for membership if developments show this to be desirable....

In general we feel that the trend of Hopkins' argument reduces Canada to a position of undue subordination in a vital aspect of the organization of the war effort. Does he realize that in effect he is asking Canada to make available for assignment in Washington her entire production of Munitions

(including those needed for our own forces overseas, for home defence and for training) without giving Canada any voice in their disposition beyond the promise of a full opportunity for Canadian representatives to present to the Board their needs and their views? It seems to us that if there is to be bona fide pooling the Governments which pool in any volume must, in order to discharge their own responsibilities towards their own forces and for their own defence, have a direct voice in the disposition of the pool. This principle applies with special force to a country which, on balance, is a substantial producer of munitions for the use of others among the United Nations (212).

This information was embodied in the letter and memorandum the Canadian Minister despatched to Mr Hopkins on 3 Jul (213).

137. On 9 Jul Mr Hopkins told several members of the Munitions Assignments Board that the Canadian request for full membership would lead only to similar requests by Australia, New Zealand and China. If such requests were granted, the Munitions Assignments Board would become too unwieldy. Thereupon General Macready* suggested a compromise: a Canadian representative should attend all meetings but have a voice only when Canadian production was being discussed. General Macready later told General Pope that Mr Hopkins seemed pleased with this solution (214). It was not until 4 Aug, however, that Major-General Burns called on General Pope and stated that Mr Hopkins had empowered him to offer Canada full membership on the Munitions Assignments Board when the assignment of Canadian production was being discussed. General Pope went over the draft letter, giving some suggestions and persuading General Burns that the offer to Canada also should include membership on the three Munitions Assignments Committees (215). The actual letter received by General Pope on 8 Aug read as follows:

I have been directed by Mr Hopkins, the Chairman of the Munitions Assignments Board to offer Canada membership on the Munitions Assignments Board and the corresponding Assignments Committees when Canadian production and Canadian North American requirements are under discussion, provided Canada agrees to the following proposals:

- (1) All Canadian production of finished military stores would be tabled in Washington along with United States production.

*Recently appointed head of the British Army Staff in Washington, where he was to remain until 1946.

- (2) Canadian bids from this total North American production, to be used for Canadian forces in the North American Area, would be made in Washington.
- (3) That part of Canada's requirements for her naval, military and air forces overseas, which is to be met from North American production, would be included in a bulk bid made on the Washington Board from the London Board. This bulk bid would cover the requirements of all of the members of the British Group of Nations. In other words, while all Canadian production would be pooled in Washington, Canada's requirements would be met partly through the Washington Board and partly through the London Board (216).

138. Opinion in Ottawa was divided. The Minister of National Defence and the Chief of the General Staff were opposed (217). The Chiefs of the Naval and Air Staffs favoured acceptance, considering that something was better than nothing. Furthermore, although it had been officially recognized that the provision of aircraft for home defence was a matter of direct concern to the Canadian and American Chiefs of Staff (218), there was the fact that future allocation to Canada of American-built aircraft was controlled by Washington. Mr Power had told the Cabinet War Committee on 15 Jul that, in practice, operational aircraft would not be available for the 49 further home defence squadrons authorized on 18 Mar 42 and the additional R.A.F. Transferred Schools that had been planned; furthermore, the continuance of the British Commonwealth Air Training Plan would be seriously hampered by a shortage of training aircraft. Unofficially it had been learned that the Combined Staff Planners in Washington had worked out a deployment table which provided for the assignment of Canadian-built aircraft to the United States in return for the release of American planes to Australia and New Zealand, and had ignored future Canadian needs (219). Mr Howe observed that Canada controlled the delivery of her own aircraft production and could give priority to the needs of the R.C.A.F., but Mr. Power countered that Canadian production actually was subject to Washington influences, since it was very difficult to resist pressure for allocations to other theatres (220). At the moment Canada suffered all the disadvantages and obtained none of the benefits of pooling because of not being represented on the Combined Munitions Assignments Board. Mr Howe continued his objections at the Cabinet War Committee meeting of 19 Aug. Briefly stated, these were as follows:

Munitions and Supply now producing all war equipment required defence services.

If Canadian production pooled no guarantee Canadian Defence Services will receive requirements, having to compete with China, Russia, etc. in bids Canadian and American produced equipment.

M. and S. now working on orders placed definitely known parties but would not know who they were working for if producing for Combined Munitions Assignment Board and having to open accounts for all Allied Nations to which Canadian production might be allotted would create chaos in M. and S. accounts (221).

The gist of his objections was, however, that, since the United States did not place all its production in the pool, he did not want all items of Canadian production pooled (222). The Department of Munitions and Supply also considered that all W.S.L. orders should be tabled separately by the United States since they were British-type equipments bought by the United States to be turned over to the United Kingdom under the provisions of the Lend-Lease Act (223) (see para 93).

139. Although it was true theoretically, as General Macready pointed out to General Pope in Washington, that all United States production was liable for assignment (224), in actual practice the basic needs of the American Armed Forces were attended to first and many items were never considered available for allocation (see para 108).

140. Both General Burns and General Macready assured General Pope, however, that, since every allocation made by the Munitions Assignments Board would bear some relation to Canadian production, they considered that the Canadian member should attend all meetings in their entirety. Therefore, General Pope's telegram of 24 Aug to the Chief of the General Staff in Ottawa included the following:

On general grounds it would seem that it is much to Canada's advantage to accept the current offer. We have now an opportunity to obtain representation, on a lower scale it is true than that of the United Kingdom and the United States, but nevertheless immeasurably higher than that attained or likely to be attained by any of the smaller nations. It would put us in a class by ourselves, and this we appear to have been seeking for a long time. Parity with the two big powers being beyond our reach surely it is expedient to take the next best thing particularly when that next best thing happens to be good. So far as question as to whether or not we should table all Canadian physical production or only that to Canadian order is concerned, I feel that if the latter course were adopted we should from every point of view be deliberately putting ourselves in a position of inferiority to the United States. And if the Deputy Minister of Finance came away from Washington some months ago assured that all Canadian production could be assigned here without thereby impairing Canada's dollar position we should not have any worry on that score. In any event that

would seem to be a matter for the Department of Finance. In this connection much water has flowed under the bridge since Pearl Harbor. Today there are items being assigned by the C.M.A.B. as United States production orders which were originally placed by the British Purchasing Commission and paid for by British funds (225).

141. A somewhat later letter (24 Sep 42) from the Air Member of the Canadian Joint Staff in Washington (Air Vice Marshal G.V. Walsh) to the Chief of the Air Staff followed the same vein:

If this [rejection of the Burns' offer] is the case, I assume we will have to rely entirely on the R.A.F. to make bids and plead our case before the Munitions Assignments Board and Committees. As you will realize, they will be bidding on our behalf, but in competition with themselves, and they would not be human if they were to argue our case so well that the material came to us rather than to them, and I must say that in this respect, they are very human indeed. Further, they have no interest in our problems, as we are not in their sphere of strategic influence, nor are we in that of the United States, so it looks to me that, as time goes on, we will be getting less and less of more and more from United States production until we have practically nothing of everything!

Actually, at the present time, Tackaberry is permitted to speak his piece before sub-committees, and the Aircraft Committee, but not being a member of these committees, cannot stay during the discussion as to whether or not the items he is pleading for can be supplied. This he only learns from the R.A.F. representative later who, as I repeat, would hardly be human to support his bid with the Americans if it ran counter to their interests (226).

142. On 26 Aug the Cabinet War Committee referred General Burns' offer to Messrs Howe and Ralston for further study. Meeting on 2 Sep the Committee decided to press for membership on the Combined Production and Resources Board but not to join the proposed Commonwealth Supply Council. On 4 Sep it decided not to accept the limited membership offered on the Munitions Assignments Board in Washington. At the following meeting of 16 Sep it was explained that existing informal arrangements were working reasonably well and might be further developed and formalized. In practice, these gave Canada access to the Combined Munitions Assignments Board and its committees; further arrangements might be worked out with General Burns.

143. However, the question of Canadian membership on the Munitions Assignments Board was raised again on

7 Oct, since the Minister of National Defence for Air and the Chiefs of the Naval and Air Staffs still considered that conditional membership was better than nothing. In the absence of Messrs Howe and Ralston, however, decision was deferred. In practice the earlier decision remained effective, although no reply was ever despatched to General Burns' offer (227).

144. Instead, Canada accepted belated membership on the Combined Production and Resources Board. Mr Howe joined Mr Donald Nelson and Mr Oliver Lyttelton as the third member, but was represented permanently in Washington by Mr E.P. Taylor. This Board never lived up to earlier expectations, however, since it was not able to exercise adequate co-ordinating authority. According to the publication Industrial Mobilization for War:

Despite early efforts, CPRB did not engage in comprehensive production planning or in the long-term strategic planning of economic resources. The American and British production programs for 1943 were not combined into a single integrated program, adjusted to the strategic requirements of the war. CPRB's isolation from the sources of decision regarding production objectives, its failure to develop an effective organization, its deference to other agencies and its tardiness in asserting its jurisdiction, the inadequacy of program planning by the agencies upon whom CPRB relied for forecasts of requirements, the delay of the Combined Chiefs of Staff in formulating strategic objectives for 1943 - all these contributed to a result that saw adjustments in the American and British production programs for 1943 made by the appropriate national authorities in each case, rather than through combined machinery (228).

Furthermore, according to Sherwood's Roosevelt and Hopkins:

The trouble was that the "appropriate national authorities" in the United States were not only Nelson and his associates in WPB, but also the procurement officers of the War and Navy Departments with whom the civilians were engaged throughout the war in one of the many running battles of Washington (229).

Mr. Lyttelton probably summed it up as well as anyone, in a report he made to the (British) War Cabinet in September 1942:

The Americans have never been accustomed, in consideration of military or quasi-military matters, to link harmoniously the civil and military interests. They have no War Cabinet and they have no Defence Committee at which requirements, both civil and military, can

be scrutinised, and programmes framed with due regard for the merits of the case. Nor have they any means by which the conflicting views of the several agencies can be harmonised and a common policy reached. The whole burden of grouping the extravagant demands of the War Department and of co-ordinating the action of the many agencies which have been created falls on one man - the President (230).

(iii) Subsequent Canadian Procedure in Washington

145. Exactly how well were the informal arrangements working in Washington and to what extent did it prove possible to develop further and formalize the Canadian approach to the Combined Munitions Assignments Board and its Committees during the remainder of the Second World War? Before endeavouring to answer that, however, something should be said about the procedure for procurement, as distinct from assignment. Prior to December 1941 the Department of Munitions and Supply was the sole Canadian agency in Washington. Circumstances changed with the entry of the United States into the war and, in addition to the fact that a "military case" had to be made out in respect of an ever increasing number of items before authority to procure would be granted by the U.S. War and Navy Departments, finished military stores were subject to assignment by the Combined Munitions Assignments Board (see paras 105-108, 112 and 121). With respect to munitions in short supply, the matter of procurement now became increasingly less significant than the procedure of assignment, which was controlled by service personnel and based on considerations of strategy (231).

146. This fact became recognized only as a result of the almost continual bickering that developed during the summer of 1942 between certain representatives of the Washington Office of the Department of Munitions and Supply and the Canadian Army Staff. While General Pope actually was trying to get at the root of the matter on 17 Nov 42, he received a telephone call from Mr Carswell asking him to come over for a talk with Mr Howe and himself on that same subject (232). Mr Carswell had found a British modus vivendi, drawn up in August 1942, agreeing that the role of the British Army Staff representative at meetings of the U.S. War Department's International Supply Committee was to support the official from the British Supply Mission. Mr Carswell now suggested that a paraphrased version might be adopted for Canadian use. On 30 Nov General Pope and Mr Carswell worked out a draft joint directive, with the assistance of the subordinates directly concerned, and despatched it to Ottawa for the approval of Mr Ralston and Mr Howe (233). Their approval having been obtained, General Pope and Mr Carswell signed a joint directive on 17 Dec setting forth the respective functions of their two staffs as follows:

(a) Procurement

The Department of Munitions and Supply, Washington Office, acts for the Minister of Munitions and Supply in procurement. When procurement cannot be made except in conjunction with the U.S. Army, a requisition will be filed through the International Supply Committee, S.O.S., by D.M. & S. To the extent that the I.S.C. requires that a military case should be made out, procurement and such priority questions as may arise will be handled in the International Supply Committee jointly by D.M. & S. and C.A.S.

(b) Manufacture

From the time the International Supply Committee agrees to accept the order, until the goods become available for assignment, the C.A.S. as such, has no direct concern with the production, except that they have a natural desire that all war material should be delivered with the least possible delay. It is the function of D.M. & S., alone insofar as the U.S. War Department and other production authorities are concerned, to assume responsibility for following up production from the time of acceptance of the procurement request by I.S.C. until the completion of the manufacture.

(c) Assignment

All assignment must be covered by procurement orders before assignment is requested and the responsibility for attaining assignments of any completed war material manufactured in the United States must be a matter for C.A.S. From the moment, therefore, that the goods are placed on the table for assignment until assignment has been obtained, the responsibility for dealing with them must rest with the C.A.S. This does not mean that D.M. & S. lose their interest at this stage - they are still responsible as the originating agent, and therefore, C.A.S. must keep the appropriate officials of D.M. & S. promptly informed by periodic reports as to the progress, if any, of such assignment requests (234).

For all practical purposes, the actual release and movement of the munitions to their destination was to be handled by the Department of Munitions and Supply, although naturally the Canadian Army Staff was interested in knowing when actual delivery would be effected.

147. Although General Pope and Mr Carswell were determined that their staffs should work together amicably, a considerable amount of bickering and discord continued because of clashes in personality. Finally, on 27 Apr 43 Mr Carswell told General Pope that he intended to replace his Director of Purchasing (the cause of much of the trouble). He suggested that Colonel W.C. Beamer* should be seconded to the Department of Munitions and Supply as a replacement and that the whole Requirements Section of the Canadian Army Staff should go with him (235). Although several sections of the British Army Staff and British Supply Mission had been merged during December 1942 because "procurement and assignment were in a sense getting more and more to mean the same thing", General Pope considered that there would be several disadvantages in following suit with the smaller and less complex Canadian organizations (236). General Pope's counter proposal, and the one that subsequently gained acceptance by all, was that the Purchasing Division and the Requirements Section should merge into a new directorate which should function under both Mr Carswell and himself (237). Authorization having been received from Ottawa, Colonel Beamer began his new role on 17 May 43, as Director of the Canadian Procurement Division, Department of National Defence-Department of Munitions and Supply (238). It must be understood, however, that although this Canadian Procurement Division performed the purely Munitions and Supply functions for naval and air requisitions, Royal Canadian Navy and Air Force officers continued their own "requirements" functions.

148. Meanwhile, certain advances had been achieved by the Canadian Army Staff in respect of assignment procedure. During May 1942 a Commonwealth Munitions Assignment Committee had been formed and fortnightly meetings instituted to clear any problems between the British Joint Staff Mission and the Washington staffs of the several Dominions (239). The following rather illuminating description is taken from General Pope's Diary for 12 Oct 42:

Meeting of Commonwealth Munitions Assignment Committee, at which Canadian representatives are usually spectators, as we have nothing in the way of munitions assignment problems to bring up. I like these meetings, however, because the discussion of Commonwealth problems generally give me an insight into the business of munitions assignment, which I could not get in any other way (240).

* Had taken over from Colonel Mavor and become head of the Arms and Requirements Branch of the Canadian Army Staff (see para 121). Colonel Mavor retained the appointment of D.O.S.(TS) at N.D.H.Q. until 1 Oct 42, when he was promoted to the rank of Brigadier and appointed Deputy Master-General of the Ordnance (B).

Although Canadian requirements continued to be submitted through the British Army Staff representative, as part of the latter's bid, to the Munitions Assignments Committee (Ground), Canadian Army Staff representatives were able to attend meetings of the sub-committees and be present at the Munitions Assignments Committee (Ground) meetings when Canadian requirements were being formally presented (241). During December 1942 an arrangement was made whereby stores would be diverted direct to Canada once a bulk assignment was made to the United Kingdom. Hitherto the British Army Staff had had to refer each case of assignment for Canada to London and there had been an average delay of five weeks before release could be authorized and actual shipment got under way (242).

149. A certain amount of confusion developed during January 1943 as a result of a hasty, though well-meant ruling by General Clay, Chairman of the Munitions Assignments Committee (Ground) (243). When the smoke had cleared, however, General Clay's efforts to rectify the Canadian position led to the following formula being issued by the Director of the International Division, Services of Supply, on 3 Mar 43:

- (a) Requirements for standard items of United States Army specifications obtainable from Army stocks or production without the necessity for replacement will be requested by the submission of a bid to the Munitions Assignments Committee (Ground) through United Kingdom representatives.
- (b) Requirements obtainable by direct cash contracts to be placed with manufacturers in the United States by the Dominion of Canada will be submitted directly to this division by Canadian representatives after clearance and scheduling of the desired production by the appropriate supply service.
- (c) Requirements obtainable only through contracts to be placed by the War Department will be submitted directly to this division by Canadian representatives after agreement as to such submission has been obtained from the supply service concerned (244).

150. However, when General Pope had taken up the question of the Canadian Army Staff bidding direct on its own account at the Munitions Assignments Committee (Ground), General Macready had pointed out (21 Jan 43) that Canadian representatives could not very well claim this right after Canada had refused to act on the proffered form of membership on the Munitions Assignments Board. General Pope personally agreed with General Macready that the time was hardly "opportune" to raise the issue with the Services of Supply (245). A Canadian representative continued to attend meetings of the Munitions Assignments Committee (Ground) and during April 1943 the War Office agreed that he might present and argue the Canadian case there, provided that the British Army Staff representative had been informed previously

so that there would be no possibility of a divergence of views regarding Commonwealth requirements (246). Moreover, the head of the Canadian Army Staff's Requirements Section suggested much later that:

...the very fact that there was no yard stick or precedent on which to base procedure afforded many opportunities for the Canadian Liaison Officers to hold unofficial conferences with American officers, in the discussion of policy as it affected our interests and to form invaluable connections with the War Department General Staff and Technical Services (247).

151. By means of the same informal type of approach, but directed towards officers of the United States Army Air Forces and United States Navy, Air Vice Marshal Walsh and Air Commodore Tackaberry achieved greater independence of action. For one thing, after it had been conceded that Canada was not in one of the spheres of influence established by the Arnold-Portal-Towers Agreement of 21 Jun 42 and that Canada's home defence requirements for operational aircraft were the direct concern of the Canadian and United States Chiefs of Staff, Air Vice Marshal Walsh managed to deal directly with General H.H. Arnold, Commanding General of the United States Army Air Forces, and Vice Admiral J.S. McCain, Deputy Chief of U.S. Naval Operations for Air, over the question of aircraft allocation. It might be noted in passing that, unlike the U.S.A.A.F., the U.S. Navy was interested in Canadian aircraft production of certain special types (248). Following his initial rebuff by the R.A.F. Delegation (see para 121), Air Commodore Tackaberry had a very satisfactory interview with Brigadier-General Henry J.F. Miller, Commanding General of the Air Service Command, U.S.A.A.F., and began to attend meetings of the Munitions Assignments Committee (Air) and its sub-committees on his own. Subsequently, however, the American chairman of one such sub-committee queried his right to be present, wanting to know why the R.A.F. representative should not continue to look after R.C.A.F. needs. Air Commodore Tackaberry explained that naturally the R.A.F. was more interested in acquiring stores for British use than diverting items to the R.C.A.F. Furthermore, he was able to convince this U.S.A.A.F. officer that the close relationship developed between the Armed Forces of Canada and the United States by the Permanent Joint Board on Defence, as enunciated in its 22nd Recommendation (approved at the New York meeting of 20 Dec 41) made it possible for the U.S.A.A.F. to provide aircraft and stores directly to the R.C.A.F. This recommendation read:

That the United States and Canadian Governments now authorize the Commanders named in paragraph 12 of ABC-22, or their duly authorized representatives, to effect by mutual agreement any arrangements they may deem necessary for the perfection of preparation for the common defence, including but not limited to, the installations of accessory equipment in the territory of either, the transit of armed forces, equipment or defence materials through the territory of either, and the utilization by either nation of the base and military facilities of the other.

Although confirmation was obtained from a more senior authority for Air Commodore Tackaberry to continue attending meetings, this ruling did not receive as wide a distribution as it might and there proved to be occasions when he had to use the same arguments with other American officers (249).

152. During the time that Major-General George E. Stratemeier presided over the Munitions Assignments Committee (Air) the R.C.A.F. position was further strengthened and Air Commodore Tackaberry was permitted to remain at meetings during the discussion that followed the tabling of bids. Even though the actual bids had to be submitted through the R.A.F. Delegation, Air Commodore Tackaberry was able to support his request verbally before the appropriate sub-committee and, if successful here, before the Munitions Assignments Committee (Air). The accepted procedure was, however, to lobby before a meeting and discover whether the several members would support the particular bid in which he was interested (250).

153. Since the British no longer were interested in Canada's requirements for operational aircraft for home defence (see para 132), and the Americans had grown accustomed to the presence of Air Commodore Tackaberry, it was conceded early in 1943 that the R.C.A.F. might submit bids for aircraft direct to the Munitions Assignments Committee (Air); somewhat earlier, direct access had been granted in respect of all assignments except aircraft, aircraft engines and propellers (251). However, requisitions for the Lend-Lease aircraft and equipment that the United Kingdom was supplying as its share of the Combined Training Establishment (being operated in Canada by the R.C.A.F.) continued to be handled in Washington by the British Air Commission and the R.A.F. Delegation (252). Although Air Commodore Tackaberry never appeared before the Munitions Assignments Board, and never achieved actual membership on any committee, the practical results of his work may be gauged from one letter he wrote to Ottawa after attending a meeting of the Munitions Assignments Committee (Air):

It is believed that the Royal Canadian Air Force case was presented as strongly as the circumstances warranted, but when it became apparent after listening to the Director of Training, Brigadier-General Smith, who presented the case for the Training Command, it was obvious that the U.S. Army Air Force proposed to stand firm in their demand that the aircraft be diverted to them, and, therefore, it was decided that it would be much more to the advantage of the Royal Canadian Air Force to concede the aircraft than to be overruled. This opinion was vindicated when, after conceding the issue, the Chairman of the Munitions Assignment Committee, Air, Major-General Stratemeier, stated his appreciation of the gesture and expressed the hope that they would in the near future have an opportunity of reciprocating. Brigadier General Luther Smith, Director of Training, left the meeting at the same time as your representative and

added his thanks to those of General Stratemeier. He said that he appreciated our generous gesture very much, that he was in a very tough spot for Twin Engine Trainers and he also expressed the hope that he would be able to return the compliment. It is on General Smith that we are placing dependence for support in the proposal for the exchange of Stearman Aircraft for Fairchild PT.26 (Cornell Trainers). This morning he stated he hoped this exchange could be arranged immediately (253).

154. Since the armament and technical stores required by the Royal Canadian Navy were not, generally speaking, common to those used by the United States Navy and because United Kingdom and Canadian production was adequate for most items, orders placed with American industry were mainly for stores of commercial pattern, torpedoes, ammunition and 20-mm. Oerlikon guns (see para 66). Moreover, until April 1943 the British Admiralty Technical Mission in Ottawa, which furnished expert advice on ship-building and the production of naval stores in Canada, remained responsible for the acquisition of all British-type naval stores obtained from American sources (254). Thus, the Director of Naval Ordnance, Torpedoes and Mines had felt justified in advising the Chief of the Naval Staff on 30 Apr 42 that there was little necessity for a Canadian representative on the Munitions Assignments Committee (Navy), since future requirements from American production were not likely to exceed existing ones (see para 133):

- (a) .5 inch Colt Ammunition.
- (b) A diversion from Admiralty Orders of 400,000 rounds of Q.F. 2 In. Ammunition
- (c) Some small diversions of .30 Ammunition of various practice types.
- (d) An order has just been placed for 300 Eyeshooting Sights for .5 inch Colt Guns.
- (e) We may need in the future some small orders of types of Ammunition not obtainable from other sources.
- (f) Allotments of Oerlikon Guns and Ammunition are being obtained from Admiralty share of United States Production on Lease-Lend as it is not possible to place orders the United States and United Kingdom having all future production (255).

155. In view of the ever tightening and multiplying controls being applied in Washington, however, the above hardly proved to be a sound opinion. For it became increasingly difficult for representatives of the Department of Munitions and Supply to place contracts without supporting briefs from the Royal Canadian Navy, and almost impossible to obtain direct assignment of controlled stores. Although representatives of the British Admiralty Delegation continued to undertake the provision of certain special items (such

as those mentioned above) required for the B.A.T.M. and R.C.N. ships being constructed in Canada, there were other joint requirements that the Department of Munitions and Supply went ahead and endeavoured to procure on its own. For example, it continued to acquire in the United States the engines required for all the Fairmile motor launches and motor torpedo boats being constructed in Canada. The solution proved to be a direct approach to the U.S. Navy Department, which could supply Canadian needs from its own stocks or from contracts that it had placed with American industry, or put through the requests to an available manufacturer. Although it was not strictly necessary to deal through the U.S. Navy for many items, such action was desirable as being the best method of obtaining a "priority" which would enable a manufacturer to secure an allocation of the necessary raw materials. It might be further noted that, in addition to ships' stores and equipment, the Royal Canadian Navy required considerable special equipment produced only in the United States, such as caterpillar tractors for the construction and maintenance of the naval bases established on the west and east coasts of Canada and in Newfoundland (256).

156. By 10 Mar 43, therefore, the Naval Member of the Canadian Joint Staff in Washington was writing the Secretary of the Naval Board in Ottawa that arrangements had been made to have a representative attend meetings of the Munitions Assignments Committee (Navy) at which material for assignment to Canada was under discussion. Arrangements also had been made with the Washington Office of the Department of Munitions and Supply to receive a copy of all "Canpay" requisitions filed with the U.S. Navy Department. On receipt of such requisitions it was planned to request Naval Service Headquarters in Ottawa to provide a brief on the strategic need and urgency of the requirement, so that there would be a case to present to the Munitions Assignments Committee (Navy) when the material came up for assignment (257).

(iv) Canadian Munitions Assignments Committee (Army)

157. Canadian war industry had proved slow to produce the goods, even after sufficient contracts had been obtained from the Canadian and British Governments to justify tooling up. And when actual production began to get under way late in 1940 the monthly total was considerably less than required to meet both British and Canadian contracts. Negotiations were conducted between the Ministry of Supply and the Department of Munitions and Supply, and between C.M.H.Q. and N.D.H.Q., over the question of actual assignment but in many cases the allocations made were not identical and the arrangements did not prove satisfactory to those in Ottawa. Therefore, late in 1941 Mr Howe and Mr Ralston agreed to establish an ad hoc committee to allocate current Canadian production between Canadian, British and War Supplies Limited orders. This Joint M.G.O., British Army Delegation and D.M. & S. Committee on Production and Allocation Problems held its first meeting on 13 Jan 42 (258).

158. Initially it was considered that this Committee would act only until Assignment Boards were functioning in Washington and London, since it was expected that Canada would become a member of one or the other (259). Monthly meetings were on an informal basis (260); but beginning with March 1942 an allocation statement was prepared and issued, detailing firm assignments for that month's production and tentative allocations for that of the succeeding month (261). Before each monthly meeting the concurrence of the General Staff branch was sought for the proposed allocations (262); however, the approved allocation was subject to amendment or compromise should it differ from the action taken at the A.C.I.G.S. Monthly Meeting in London (263). The members of the Ottawa committee were Mr Victor Sifton, Master-General of the Ordnance, Mr H.J. Carmichael, Chairman of the Production Committee and Director-General of the Gun Production Branch, Department of Munitions and Supply, and Colonel A.H. Fernyhough, British Army Staff, Ottawa. Unlike the Washington and London Boards, however, the Ottawa Committee contained no General Staff representative, particularly fitted to determine allocation on strategical grounds. Brigadier J.S. Lothbridge, D.D.S.D.(W) at the War Office, attended the meeting of the Ottawa Committee on 28 May 42, when June production was being assigned, and reported that it "views assignment on basis of contractual obligations and allows local political considerations to override operational necessities" (264). Furthermore:

In order to balance Canadian purchases of material from United States of America it is important that Canada make a high proportion deliveries on United States Lend-Lease orders placed through War Supplies Limited. On this basis it appears to Canadians not unreasonable for Canada to allot deliveries to W.S. Ltd. and leave it to us to settle assignment of these quantities in Washington (265).

159. In July 1942 Messrs Howe and Ralston recommended that a permanent committee be established to allocate Canadian munitions to the United Kingdom, to Canadian forces in the North American Area, and to War Supplies Limited (266). The controlled stores assignable were those **required** for military or common use and fell within the following classifications:

- Guns
- Gun ammunition
- Small arms
- Small arms ammunition
- Armoured fighting vehicles
- Instruments (267)

In practice, anyone could request that an item be placed on the assignment list as soon as there were two or more claimants. For example, in August 1942 the War Office requested that bridging equipment should be added to the list (268). Other nations desiring Canadian munitions had to bid in Washington or London, where the bulk allocations were broken down. No bids were submitted for direct shipment to the Canadian Army Overseas, which drew such munitions from the bulk assignment made to the London Munitions

Assignment Board, but various exchange agreements had been, and continued to be, made whereby the Canadian Army Overseas was issued with British items and an equal number of Canadian equipments scheduled for use in the North American Area were turned over to the British Army Staff, Washington (269).

160. The R.C.N. and R.C.A.F. first sent representatives to the July meeting to bid for their requirements in items common to the three services. Then, following the Cabinet War Committee's decision in September not to accept the limited membership offered on the Washington Munitions Assignments Board (see para 142), the name Canadian Allocation Committee was adopted (270). At the October 1942 meeting it was decided that the name should be changed again, to Canadian Munitions Assignments Committee (Army) since it dealt with controlled stores for the army and those common to the other services (see Appendix "A"). A representative of the International Division, Services of Supply, Washington attended this meeting unofficially. In November, however, the Director of the International Division (or his representative) replaced the War Supplies Limited representative as voting member: henceforth, W.S.L. contracts came under U.S. Army Ordnance, Detroit District and part of the Longue Pointe Ordnance Depot, Montreal was turned over for their reception (271). By July 1943 membership included (272):

| | |
|---------------------|-----------------------------------|
| Chairman | Mr H.J. Carmichael |
| Canada (Army) | Brigadier W. Mavor |
| Canada (Navy) | Capt. R.W. Wood (or alternate) |
| Canada (Air) | Mr T. Sheard (or alternate) |
| United Kingdom | Brig L.S.F. Dawes, BAS(W) |
| U.S. War Department | Lt.-Col. W.S. Gaud (or alternate) |

Representatives of War Supplies Limited, the Inspection Board of the United Kingdom and Canada, U.S. Army Ordnance, British Army Staff (Ottawa), and the British Admiralty Technical Mission attended individual meetings. Membership subsequently was extended to the Canadian Mutual Aid Board (see paras 166-169). Liaison was maintained with the London and Washington Boards on the secretarial level by Major T.F. Flahiff (Canadian Assignments and Requirements, (Ottawa)*) and Mr S.H. Sutherland (Department of Munitions and Supply).

161. In his capacity as joint secretary, Major Flahiff prepared an "Analysis of Proposed Assignments", using production and shipment figures prepared by the Economics and Statistics Branch, Department of Munitions and Supply. This came to be circulated to the British representatives, the Departments of National Defence in Ottawa, War Supplies Limited, the U.S. War Department, the Inspection Board of the United Kingdom and Canada and the Canadian Mutual Aid Board; all of whom submitted bidding briefs in consequence. A meeting of the sub-committee on

* Directly under Brigadier W. Mavor, D.M.G.O.(B)

the afternoon preceding the formal monthly meeting of the Canadian Munitions Assignments Committee (Army) ironed out differences and put American and British representatives from Washington in the picture (273). Although the Canadian General Staff was still not represented, comments were submitted on the "Analysis of Proposed Assignments" as a bidding brief and an officer of D.S.D.(W) took part in the discussion of certain items on the agenda, all of which tended to give allocations an operational rather than a contractual basis. Furthermore, an Inter-Service Priority Committee came into being to settle any disputes as to how items assigned to the three Canadian Services should be distributed (274).

(v) Canada's Mutual Aid Programme

162. On 8 Feb 43 the Minister of Finance gave the House of Commons its first inkling of the Government's plans to ensure the continued flow of Canadian munitions, foodstuffs and other materiel to her Allies. Foodstuffs and raw materials had been available from the outbreak of war but only during the past year had there been a considerable production from Canadian factories of the actual munitions of war. Canada's financial position vis a vis the United States was relatively satisfactory, thanks to the implementation of the Hyde Park Declaration (see paras 93-95), but her relationship to those United Nations within the "sterling bloc" was deteriorating steadily. In short, Canada still faced a major financial problem. According to Mr Ilsley's announcement:

The main way in which we have assured this flow of war supplies to our allies heretofore has been to provide Britain with the Canadian dollars necessary to pay for what the sterling area obtained from Canada in excess of what it sold to Canada. This served to make Canadian dollars available not only to Britain but also to Australia, New Zealand and other British empire countries which purchased their foreign exchange from Britain. The first means by which we provided dollars to Britain was that of paying our debts before they were due. The next was merely to allow pounds sterling to accumulate to our credit. Later these sterling balances not used in payment of debts were converted into a loan to Britain, interest free for the duration of the war. Finally we provided a free gift of a billion dollars, assuming this as part of our share of the cost of the war. This billion dollars has now been exhausted. Other means must be found to continue providing Britain with the large volume of essential war supplies she requires from Canada (275).

The Canadian Government's answer was a procedure similar to American Lend-Lease, whereby essential war supplies should be shared with the other United Nations on the basis of strategic need. After these nations had paid for what they could with their earnings of Canadian dollars the balance

would be transferred to them as a gift, on the sole understanding that such supplies would be used in the joint and effective prosecution of the war. A sum not exceeding \$1,000,000,000 would be voted for the purchase of such supplies during the coming fiscal year, the actual disposition of which would be handled by a War Supplies Allocation Board established as a standing committee of the Cabinet, under terms and conditions to be determined by Order in Council (276). The working out of a satisfactory procedure was, however, to involve considerable difficulty.

163. On 2 Mar 43 General Pope discussed informally with Generals Macready and Burns, in Washington, how the work of the proposed War Supplies Allocation Board could be effectively co-ordinated with the operations of the Combined Munitions Assignments Board (277). According to the telegram despatched to the Department of External Affairs:

Macready at once observed that if the products of Canadian industry were to be distributed in accordance with strategic needs, then such distribution should be carried out on the advice of Canadian military committees, which, in turn, should be in touch with the C.M.A.B. He pointed out that, according to the practice in Washington, the granting of authority to procure a certain bill of munitions only constituted the staking of a claim, and that when the said munitions had been manufactured, they were invariably subject to assignment in the light of the strategic situation then existing and this might well be, and often was, quite different to that which existed when the authority to procure was originally given. Consequently, he was of opinion that, no matter what financial arrangement might be made, the actual transfer of the goods, if strategic need were to be the criterion, would have to be made through the medium of a Munitions Assignment Board or Committee. He thought that if Canada did not manage to co-ordinate her procedure in this respect with that of the C.M.A.B., she might inadvertently, yet seriously, handicap the efficient prosecution of the war. Consequently, he did not feel that our proposal would work unless it was operated as a financial settlement bill; that is to say, to dispense credits rather than goods (278).

General Burns was friendly, but not particularly helpful. He said that Canadian munitions were being assigned in a manner satisfactory to the United States and felt confident that Canada's proposed Mutual Aid programme would be conducted in a like manner.

164. On the same day the Canadian Chiefs of Staff advised their Ministers that the Armed Services should be represented on such a Board, or one of its committees, in order to give advice on the strategic aspects of any allocation (279).

165. In the absence of Mr Howe the Cabinet War Committee did not take any action at its meeting of 3 Mar; it did agree, however, that the major executive functions of any War Supplies Allocation Board should be carried out in the Department of Munitions and Supply, under the direction of an administrative officer responsible to the chairman who was also Minister of that department. At the subsequent direction of the Cabinet War Committee, a meeting of departmental officials was held on 27 Mar to discuss questions of procedure and organization (280). Following the example given by the United States in the handling of Lend-Lease, it was agreed that existing machinery would be used wherever possible (see para 80). For example, where strategic advice regarding the production or assignment of munitions was required, the Board should secure this advice from the Canadian Chiefs of Staff Committee, which maintained close contact with the Combined Chiefs of Staff. As was further pointed out in a Cabinet War Committee memorandum of 6 Apr 43:

It will be impossible to separate completely the ordering and allocation of war supplies under Mutual Aid from those which are paid for in cash. For example, in the case of the United Kingdom, obviously it will not be feasible to draw hard and fast lines in advance between supplies to be paid for in cash and supplies to be furnished under Mutual Aid. Moreover, orders placed for delivery under Mutual Aid may, at the assignment stage, be diverted to another country which would pay cash and vice versa. Therefore the activities of the Board cannot be restricted to the production and delivery of supplies under the billion dollar appropriation, but must include consideration of the overall production and assignment programme (281).

166. Not until 6 May 43 was a War Appropriation (United Nations Mutual Aid) Bill introduced into the House of Commons. But on 14 May it was passed in the Commons; the Senate approved the bill on 20 May and Royal Assent was given that same day. A Mutual Aid Board (rather than a War Supplies Allocation Board) was created to distribute the largess. It met once a month under the chairmanship of the Minister of Munitions and Supply and included the Ministers of Finance, Agriculture, Justice and National Defence. Mr Karl C. Fraser, who had been serving in Washington with the British Supply Council, was brought back to become Director of Administration. Although requests for aid were directed to the Secretary of State for External Affairs, Mr Fraser discussed the question of availability with the department concerned. He was also responsible for checking with the necessary agencies in London and Washington to ensure that there should be no duplication of effort.

The Department of Trade and Commerce handled flour and food; the Department of Fisheries looked after fish; the Department of Agriculture dealt with meat and other foodstuffs; war materiel was the responsibility of the Department of Munitions and Supply. Whenever the Director of Administration was satisfied that a request might be met the matter was placed before the Mutual Aid Board. Approval once obtained, a requisition was placed with the appropriate department which, as a general rule, undertook actual procurement. (But the title remained with the Crown until actual delivery was made.) In the case of certain munitions, however, there was also a need for clearance from the Canadian Munitions Assignments Committee (Army) at such time as they actually were available for delivery (282). Following the example established by the United States regarding the re-transfer of Lend-Lease materiel, all countries with whom Mutual Aid agreements had been concluded were notified early in 1944 that the Canadian Government would have to be advised of any diversion, or contemplated diversion, of Mutual Aid supplies (283).

167. As early as 3 Jun 43 a Washington Advisory Committee was authorized to advise the Mutual Aid Board on allocation problems, the answers to which lay with the Combined Chiefs of Staff's views on forthcoming global strategy. Mr E.P. Taylor was chosen as chairman by the other members - Mr L.B. Pearson of the Canadian Embassy, Mr J.B. Carswell of the Department of Munitions and Supply and General Pope (284). Then, as a result of Prime Minister King's conversations with President Roosevelt at Quebec in August (during the course of the "QUADRANT" Conference) a Canadian-American Joint War Aid Committee was established "to study problems that arise out of the operations of the United States lend-lease and the Canadian mutual aid programmes and where necessary to make recommendations concerning them to the proper authorities" (285). Although this Joint War Aid Committee was largely inoperative, its Canadian members continued their work behind the scenes as the Washington Advisory Committee. Since Lend-Lease officials had instituted the practice of asking the advice of the British Joint Staff Mission before allocating supplies to nations in the British Group (e.g. the several Arab states), General Macready considered that Canada should do the same before dispensing its Mutual Aid (286). Although no formal machinery was ever devised to this end, General Pope arranged that the Washington Advisory Committee should clear all such allocations of vehicles and major items of equipment with General Macready personally (287). Omissions were inevitable, of course, and from time to time General Macready complained that Canada was not distributing its Mutual Aid in accordance with "strategic needs" as determined by the British and American staffs in Washington (288).

168. In the minds of the military, the glaring fault with the Mutual Aid Board was that it was a civilian organization that did not fully comprehend or recognize that assignment should be subject to the dictates of grand strategy and that military, rather than purely political or economic, factors should govern the course to be followed (289). On the other hand, Mr Karl Fraser argued that, as a committee of the Privy Council, the Mutual Aid Board was a "much higher authority" than the

Canadian Chiefs of Staff Committee and the Canadian Munitions Assignments Committee (Army) (290). By late April 1944, however, the following procedure had been accepted for dealing with requests received by the Mutual Aid Board for munitions or articles also required by Canada's own Armed Forces. Before an item costing \$1,000,000 or more could be ordered, it was necessary to obtain a certificate of "strategic need": for orders from British Empire countries this was signed by the appropriate (Canadian) Chief of Staff; for those from other nations the Mutual Aid Board had its Washington Advisory Committee obtain a recommendation from the Joint War Aid Committee (291). There was no guarantee that such munitions would be so assigned when produced, however, for the strategical situation and the needs of Canada's own Armed Forces might have drastically changed during the interval. In the case of assignment to nations other than those of the British Empire the Mutual Aid Board would first clear with the Joint War Aid Committee and advise the British Joint Staff Mission in Washington of any major items of equipment and vehicles; then those items that were surplus stocks held by Canada's Armed Forces would be turned over. The non-assignable items of the balance could be released by the Department of Munitions and Supply, whereas the respective Chief of Staff would have to decide whether bids for the assignable items might be placed with the Canadian Munitions Assignments Committee (Army). In the case of the latter, a "deferred release" decision might be given until such time as the position regarding the Canadian Army in the North American Area and the Canadian Army Overseas for items of continuing Canadian supply was considered to be satisfactory (see paras 185-208).

169. Although a Mutual Aid Agreement was signed with the United Kingdom only on 11 Feb 44, the Board had taken over all outstanding British contracts in Canada, as of 1 Sep 43. Subsequently, agreements were negotiated with the U.S.S.R., Australia, New Zealand, China, France and India. The following table shows Canadian munitions production and its relation to the Mutual Aid programme (292):

(in millions of dollars)

| <u>Programme</u> | <u>Total Canada</u> | <u>Mutual Aid Countries</u> | <u>Mutual Aid Countries as per cent of total</u> |
|--|-------------------------|---------------------------------|--|
| Shipbuilding | \$ 788 | \$ 303 | 38 |
| Aircraft | 578 | 342 | 59 |
| Transportation Equipment | 1124 | 843 | 75 |
| Ordnance | 272 | 217 | 80 |
| Ammunition, Chemicals, Explosives | 721 | 574 | 80 |
| Instruments and Signals | 364 | 173 | 47 |
| General Stores (Battle Dress, Boots, Personal Equipment) | 795 | 184 | 23 |
| Sub-total | <u>4642</u> | <u>2636</u> | <u>57</u> |
| Freight and inspection | 279 | 161 | 57 |
| Total | <u>\$4921</u> | <u>\$2797</u> | <u>57</u> |

(vi) Munitions Requirements Committee (Canada)

170. By late 1942 raw materials were in short supply and industrial capacity was at a premium, making it no longer possible to place new war orders haphazardly in Canada. In the United States all critical materials and munitions were subject to release only on the basis of carefully drafted long term plans. Therefore, on 3 Nov 42 the Deputy Minister of Munitions and Supply requested that a committee should be established to work out the requirements of Canada's Armed Forces on a similar long term basis (293). So far as possible, having regard to the changing strategy of the War and consequent changing demands for equipment, the requirements of the Armed Forces should be made known to the Department of Munitions and Supply sufficiently in advance:

- (a) to give to the U.S.A. authorities that degree or measure of advance notice required by them with respect to the equipment, components, etc., which we must procure in that country and without which we had been told frankly that we would not expect our demands to be met; and
- (b) to assist the appropriate Directors General, Controllers and Crown Company Presidents of this Department in planning the orderly production in Canada of all items which could be made here (294)

171. The first meeting on 2 Dec 42, under the chairmanship of Mr W.D. Low of the Department of Munitions and Supply, was attended by Brigadier W. Mavor (Deputy Master-General of the Ordnance (B)), Captain G. M. Hibbard (Chief of Naval Equipment and Supply), Mr Terence Sheard (Air Member for Supply), Air Commodore R.R. Collard and Mr H.C. Goldenberg (Department of Munitions and Supply); Mr S.H. Sutherland of the Department of Munitions and Supply acted as secretary. It was agreed that requirements should be submitted quarterly by each of the Armed Forces for the ensuing 18 months: those for the first six months were to be regarded as firm and subject to immediate provision action; although those of the ensuing 12 months were to be stated as realistically as possible, revision would always be possible in the next report. After the requirements of the three Armed Forces had been consolidated by the secretary and approved by the Munitions Requirements Committee (Canada) the complete report would be passed to the Department of Munitions and Supply, where it would be screened by the responsible sections to determine whether production should be undertaken in Canada or orders placed abroad (295). Actual requirements for finished military stores were, however, still to be submitted to the U.S. War or Navy Departments jointly by the Armed Forces and the Department of Munitions and Supply. Almost from the outset the following argument was employed by the secretariat:

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This statement [of the requirements] of the Services must be prepared for inclusion in the Army Supply Program of the U.S. War Department. Unless the overall Canadian Procurement Program... is filed with the U.S. War Department it will be difficult if not impossible to secure the materials or fabricated stores from U.S. sources of supply that are required for equipping our Canadian forces and the maintenance of our production schedules (296).

172. Each Service worked out its provisional requirements and it was shortly agreed that items should be listed under the following sections to conform with the several Production and Purchasing Branches of the Department of Munitions and Supply (297):

- A - Construction
- B - Ships and Small Craft
- C - Guns-Army Types
- D - Guns-Naval Types
- E - Machine Guns and Small Arms
- F - Small Arms Ammunition
- G - Gun Ammunition (Shells, Fuses, etc.)
- H - Bombs, Grenades, Depth Charges, etc.
- I - Pyrotechnics.
- J - Chemicals and Explosives, Demolition Stores
- K - Chemical Warfare Stores
- L - Fire Control and Miscellaneous Instruments
- M - Signals
- N - Mechanical Transport
- O - Armoured Fighting Vehicles
- P - General Stores -
 - (a) Clothing, Textiles and Anti-Gas Equipment
 - (b) Machinery, Tools, Hardware and Miscellaneous
 - (c) Electrical Equipment
 - (d) Medical and Dental Supplies
 - (e) Naval and Militia Stores
 - (f) Barrack Stores and Lumber
 - (g) Coal, Coke and Firewood
 - (h) Gasoline, Oil and Paints.

173. The usefulness of this Munitions Requirements Committee (Canada) increased. During May 1943 it was decided that all requests for information - from such agencies as the Combined Production and Resources Board, the U.S. War Production Board, the Mutual Aid Board and the National Textiles and Leather Requirements Committee - should be referred by the Services to this Munitions Requirements Committee (Canada) (298), which continued to function until the autumn of 1945 (299).

(vii) Relations with the London
Munitions Assignment Board

174. While agreeing to support Canada's request for full membership on the Munitions Assignments Board in Washington the United Kingdom had stipulated that Canadian requirements in the North American Area from British production would have to be tabled in London. It was further agreed that the bulk allocation made in Washington

from American production should include a specific allotment earmarked for the Canadian Army Overseas and alterable by the London Munitions Assignment Board only in the event of changing operational requirements and with the concurrence of C.M.H.Q. (see para 131).

175. It might be conveniently noted here that on 16 Jul 42 the Combined Chief of Staff gave their approval to a procedure whereby requisitions for Australian naval and ground forces (less vehicles) should be tabled in London but requisitions for the Royal Australian Air Force and for mechanical transport should be tabled in Washington. All requisitions had, however, to be approved by General Douglas MacArthur, Supreme Commander of the South-West Pacific Area, or his authorized representative, who would also approve the actual final allocation (300). Furthermore, Australia and India subsequently followed Canada's example and established Munitions Assignment Committees to distribute the surplus of controlled stores (chiefly military) produced locally. In practice, however, the Australian and Indian committees were branches of the London Munitions Assignment Board and took their lead from its directives (301).

176. Even though the production of aircraft in Canada to British order was subject to assignment the Air Ministry was obligated to provide its share of aircraft and equipment for the Combined Training Establishment in Canada and R.C.A.F. representatives found it unnecessary to attend meetings of the Air Assignment Sub-Committee of the London Munitions Assignment Board after 17 Jun 42 (302). Although the Canadian Government assumed financial responsibility for the overseas operations of the R.C.A.F. on 1 Apr 43, including the equipment and maintenance of the so-called Article 15 squadrons, actual supply of aircraft and technical stores continued to be an Air Ministry function (A.H.Q. Report No. 67). In practice, however, the R.C.A.F. Overseas Headquarters in London, England, still had to battle with the Air Ministry to try and ensure that Article 15 squadrons should not be issued with obsolescent types of aircraft and that the agreed "Canadianization" policy was followed as regards their personnel (303).

177. Only during March 1942 had the London office of the Department of Munitions and Supply taken over the task of obtaining "Admiralty pattern" stores and equipment and an R.C.N. officer joined the staff of the "Captain Commanding Canadian Ships and Establishments in the United Kingdom" to handle technical liaison matters. Actual procurement procedure remained as before, however: the Admiralty met the Canadian requirement from its existing stocks, added the Canadian requisition to one of its own contracts or passed the matter along to another British ministry. Since the British membership of the Naval Assignment Sub-Committee of the London Munitions Assignment Board was fully aware of the importance of ensuring that the requirements of the Canadian shipbuilding programme were met and that the Royal Canadian Navy should be provided with the more technical stores, equipment and ammunition necessary to permit its ships operating with those of the Royal Navy, there was no problem. All financial matters

concerning the Royal Canadian Navy, including the maintenance from Admiralty depots of Canadian ships and vessels operating out of the United Kingdom, still continued to be handled by Canada House (304).

178. Initially there was some confusion to be cleared up between the War Office and the Canadian Army Overseas. From the inception of the Anglo-American agreement to pool finished military stores the War Office had acted on the assumption that Canadian production would be pooled in London; therefore, allocations of Canadian production were made monthly to various theatres by its appropriate committees. Liaison had been so poor, however, that there was no knowing whether Ottawa had agreed to these allocations or whether the actual allocations made by the ad hoc committee there had been notified to the War Office. In fact, Canadian production often had been allocated by the Ottawa Committee in one manner while the War Office, for lack of other information, had been counting on it being sent elsewhere (see para 158). As a temporary measure, and in the expectation that Canadian production would be pooled in Washington from June 1942 on, during March it had been arranged that the allocations made in Ottawa for May should be notified to the War Office, which would then be given an opportunity to seek adjustments after discussion by its appropriate committees (305). With effect from the meeting of 31 Mar 42, the A.C.I.G.S. Allocation Meeting became a meeting of the Army Assignment Sub-Committee of the London Munitions Assignment Board (306).

179. At the suggestion of General Macready (307), who wanted him to understand the method by which assignments were now being made, General McNaughton attended a meeting of the Army Assignment Sub-Committee held on 1 May to assign British production of weapons and equipment (other than armoured fighting vehicles and anti-aircraft and coast defence equipment) for May and to allocate the assignments made in Washington of American current production to the British Group.* General McNaughton agreed that the existing manner in which Canadian production was assigned in Ottawa was unsatisfactory but explained what the Canadian Government was hoping to achieve (308). As a result, General Macready issued the following note on 8 May:

1. At future meetings of the Sub-Committee the requirements of Canadian forces outside Canada will be considered on their own merits. In showing Establishments and deficiencies of units in Great Britain Canadian units will be shown separately from all other units.
2. In bidding for assignments from North American production the requirements of Canadian troops in U.K. will be indicated separately.

* Separate meetings were held that afternoon and the following day to allocate anti-aircraft and coast defence equipments and armoured fighting vehicles.

3. If assignments from Canadian production are earmarked in Washington for Canadian forces outside Canada, these earmarkings will, in the case of Canadian troops in U.K. at any rate, be implemented from U.K. production, the equivalent Canadian production being allocated elsewhere to save shipping.
4. This of course does not apply to certain special equipment, such as RAM tanks and certain M.T. vehicles which are being produced in Canada specifically for the Canadian Forces overseas. (309).

180. During the course of a meeting at the War Office on 28 May, however, General McNaughton became very critical of the Quartermaster-General's proposal that, in order to conserve shipping across the Atlantic, the Canadian Army Overseas should accept equipment and clothing manufactured in the United Kingdom and permit the shipment of Canadian items direct to more distant theatres. General McNaughton read a relevant passage from a telegram he had despatched to the Chief of General Staff in Ottawa on 27 Apr:

As regards the acceptance of articles of U.K. production in lieu of articles from Canada we naturally prefer our own because of the uniformly high quality of Canadian war production and the interchangeability of parts but propose to instruct our representatives on the London Board to accept articles of British origin where substantial savings in ocean transport will result and provided British articles are of acceptable pattern and not inferior in quality to Canadian. As example cases in point are British battle dress which is unacceptable in quality and British boots which we consider less preferable both in quality and pattern. Also we must have assurance that when we develop new and better types of weapons and equipment our troops may reap the advantage (310).

He went on to explain that the shipping required to maintain the Canadian Army in the United Kingdom was comparatively small. The largest single item was mechanical transport and that had to come from North America anyway. The next was clothing, but the higher wool content of the Canadian battle dress kept the troops warmer in the English climate. It was agreed, however, that Major-General R.M. Weeks (Director of Army Requirements, War Office) and Brigadier J.H. MacQueen (Deputy Quartermaster-General, C.M.H.Q.) should work out a list of items that the Canadian Army Overseas could accept from British production, permitting the Canadian equivalent to be shipped directly to other theatres of war (311).

181. It was subsequently agreed that the following procedure for meeting Canadian Army requirements, as outlined by the Master-General of the Ordnance in a telegram despatched from Ottawa on 14 Jul, was satisfactory until such time as a decision should have been reached as to whether Canada should be admitted to membership on the Munitions Assignments Board in Washington:

- I. Canadian Army Overseas requirements from UK production. CMHQ will continue to bid on LMAB for total requirements and will notify NDHQ of assignments made therefrom. From US Production. CMHQ will continue to bid in conjunction with the UK with a single bid going to British Army Staff in Washington. NDHQ will be advised both of bids so made and of resulting assignments. Exception is US produced vehicles which will continue to be bid for by NDHQ on behalf of Army Overseas. See para II following. From Canadian production. CMHQ will advise NDHQ if allocations from LMAB do not meet urgent deficiencies and consideration will be given to the advisability of releasing equipment to the Canadian Army Overseas from that allocated to Canada by the Ottawa Assignment Committee. This will not apply to ammunition which will continue to be supplied only from LMAB.
- II. Canadian Army North American Area requirements from UK production. NDHQ will continue with present procedure of War Office Requisitions. From US Production. NDHQ will continue with present requests from US production. NDHQ will continue to make representations for its own bids to British Army Staff Washington through Canadian Army Requirements Washington. NDHQ will also continue to bid for vehicle requirements of Army Overseas as noted in para I in addition to our bids. From Canadian production. NDHQ will continue to bid at the Canadian Allocation Meeting at Ottawa.
- III. ...On 20th of each month NA production figures are being cabled to War Office from Washington. Your bid against UK production primarily and against US production except vehicles will continue. Request you cable about the 9th of each month your assignment from UK production and bids against US production (312).

182. As early as 25 May 42, a first meeting of a Canadian Army Requirements Committee had been held at C.M.H.Q. in order that firm bids for the ensuing month might be placed with the London Munitions Assignment Board, as well as the tentative requirements for each of the following three months. Membership included the B.G.S., C.M.H.Q. (Chairman), D.A. & Q.M.G., First Canadian Army

or his representative, the D.Q.M.G. and G.S.O.1(S.D.) at C.M.H.Q. and a secretary (313). Canadian requirements and bids, based on deficiencies and expected British production, were tabled with the Secretary of the London Munitions Assignment Board about the 20th of each month. The G.S.O.1(S.D.) attended all the bidding and allocation meetings held during the first week of the following month. Having already been advised of what was being put forward by the Canadian Army Requirements Committee and the bidding rate, immediately following these meetings N.D.H.Q. was informed of the amount of the actual allocations. The G.S.O.1(S.D.) also supported requirements from British production for the Canadian Army in the North American Area, put forward in the form of War Office Requisitions (314). In a memorandum prepared on 9 Oct 42, the G.S.O.1(S.D.) insisted that the closest liaison must be maintained between C.M.H.Q. and N.D.H.Q. Furthermore:

It is equally important that the M.L.O. at the L.M.A.B. meetings co-operates with all other allied nations bidding at the meeting [see para 153]. Whereas a bidding rate may be determined at the C.A.R.C. and Canada advised of this bidding rate, it may be in the interest of the allied cause that the M.L.O. withdraw or reduce the bid for any particular equipment when it becomes evident that another force has a higher operational priority. From attendance at meetings it is apparent that it is quite useless to press a bid without an operational backing, in that the item is not finally released and bad feeling created. An example of one of the difficulties in supporting Canada's bids is ammunition for 40 mm Bofors. Canada demanded 40 mm Bofor ammunition on a scale of 1500 rounds per gun, when the corresponding scales are 750 rounds per gun for A.D.G.B. and only 1200 rounds per gun in Malta, which is a very considerable distance from the source of supply. No amount of support on the part of the M.L.O. from C.M.H.Q. could possibly persuade the L.M.A.B. to agree that it is operationally necessary for Canada to maintain ammunition at twice the quantity required for A.D.G.B., and 250 [sic] rounds per gun in case of Malta's requirements (315).

183. This last information was imparted to Major-General J.V. Young, Master-General of the Ordnance, who was visiting the United Kingdom to investigate personally problems of provision and assignment. On 13 Oct he accompanied General McNaughton to the War Office for a discussion with Lieutenant-General R.M. Weeks (now Deputy Chief of the Imperial General Staff). General McNaughton stated that under the present assignment policy it was difficult to plan the completion of First Canadian Army on a long term basis, since it was impossible to predict with any degree of certainty the rate at which essential equipment would be available. For example, due to the inability of the War Office to supply tanks, it had been necessary to

postpone until 1943 the despatch of the 2nd Canadian Army Tank Brigade from Canada. Furthermore, although Canada was producing approximately 200 40-mm Bofors equipments per month the six Canadian Light Anti-Aircraft Regiments already in the United Kingdom were only about 50 percent complete in guns and thus not effectively contributing towards air defence (316). General Weeks thereupon agreed to release to the Canadian Army Overseas some 200 Bofors equipments, then awaiting shipment from Canada against British account, provided that they could be shipped immediately (317). General McNaughton then pointed out that C.M.H.Q. never had been kept fully in the higher strategical picture, as regards munitions assignment, and thus it was impossible to plan when troops should be despatched from Canada or how much of their training should be completed there. General Weeks explained that agreement had just been reached within the War Office for a meeting to be held monthly to advise Dominion representatives of the strategical considerations that would govern assignment of the following month's production (318).

184. The first of such meetings was held, under the chairmanship of the D.C.I.G.S., on 23 Oct and was attended by the B.G.S. and G.S.O.1(S.D.) from C.M.H.Q. The B.G.S. pointed out that the Canadian Government had a definite responsibility for the equipment of the Canadian Army: since Canada was producing most major items of equipment considerably in excess of her own requirements, he felt that the Canadian Army's share of controlled stores should not merely be based on immediate operational requirements but also, to some extent, in proportion to Canada's total production. General Weeks agreed that such a policy was most desirable and would be followed insofar as it did not adversely affect the equipping of other forces (319).

(viii) Items of Continuing
Canadian Supply

185. Although production of controlled stores in Canada had reached sizable proportions by the end of 1942 the problem of equipping the Canadian Army Overseas to establishment and then providing adequate reserves was now to develop a new twist. Contracts had been placed with Canadian industry for the total requirements of the munitions it could produce for the Canadian Army, both Overseas and in the North American Area. But the necessity of conserving shipping, even though the backlog of equipment in North America was constantly increasing, and the desire to have Canadian formations ready for battle as soon as possible had seemed good reasons for securing from the War Office all the controlled stores possible. This decision not to wait until Canadian production was available now seemed likely, however, to result in what became termed "double provision". Although theoretically the United Kingdom should have been eager to accept subsequent Canadian production for distribution, the quantities ordered by the British were so large and the global strategical conditions were subject to such variations that there was not always likely to be a ready requirement for the Canadian munitions when

finally available.* Furthermore, with shipping in short supply everywhere, there was the further factor that a co-ordinated production programme might have produced such items in parts of the world other than Canada (321). Finally, it must be conceded, as the equipment of the British Army to establishment neared completion by late 1942, there naturally was an overall declining demand. According to Studies of Overseas Supply by H. Duncan Hall and C.C. Wrigley:

Thus what Canada could most readily supply was what the United Kingdom now needed least. The more closely Canadian production was analysed the more clearly did this fact emerge. To a very large extent it consisted of those standard Army weapons and ammunition which had been very scarce in 1941 and early 1942, but were now or soon would be in ample supply. There were many exceptions, of course. There was no sign of any slackening in the demand for armoured fighting vehicles or of rifles or of Bren guns, and the demand for mechanical transport was immense and still growing. But Canadian production of field guns, of anti-tank guns and of medium artillery carriages, undertaken in the first instance as a measure of insurance, was already strictly superfluous to War Office requirements. For the time being anti-aircraft guns were still needed in large numbers, but the demand was likely to fall off, even to cease completely, before the end of 1943.... The general conclusion was that while the full output of existing capacity could be maintained throughout 1943 there was little prospect of fresh orders or of continuation orders beyond that date for many of the stores in current production (322).

186. Major T.F. Flahiff, Canadian Assignments and Requirements (Ottawa), who was sent overseas early in 1943 to clarify bidding procedures, soon realized that officers at C.M.H.Q. considered that the interests of the Canadian Army Overseas could best be served through the London Munitions Assignment Board, without any assistance from the Department of National Defence in Ottawa and its Canadian Army Staff in Washington (323). Instead of the existing procedure (see para 181), the G.S.O. 1(S.D.) at C.M.H.Q. was to recommend on 6 Feb 43 that the following principles advanced by Major-General J.S. Lethbridge, Director of American Liaison and Munitions at the War Office and Chairman of the Army Assignment Sub-Committee of the London Munitions Assignment Board, should be adopted:

*In a few instances during 1942, exchanges had been arranged whereby the Canadian Army Overseas was equipped from British sources and corresponding Canadian production available a few weeks, or months, later was shipped direct to other overseas theatres (320).

- (a) The requirements of the Cdn Army Overseas should be tabled with the War Office for inclusion in the British Supply programme. It would then be for the British authorities to co-ordinate with the Department of Munitions & Supply the items which should be made in Canada.
- (b) The Cdn Army Overseas should bid through L.M.A.B. for all its requirements including those manufactured in the North American area, and including those manufactured in Canada (possibly excepting vehicles) (324).

Furthermore, once First Canadian Army was committed to battle it would be forced to adopt more and more types of equipment that could be maintained through a single British supply channel. In view of the imminence of active operations there seemed little doubt that the Canadian Army henceforth would have a higher equipment priority and receive a better allocation through the London Munitions Assignment Board (325).

187. Moreover, in this last connection it should be noted that the strategical role envisaged for First Canadian Army had undergone considerable change. No longer could it be assumed that the Canadian Army might operate as a self-contained force. On 10 Jan 43 General McNaughton had informed his senior subordinates that First Canadian Army would have to be prepared to "contribute the maximum effect against the enemy whenever and wherever it was required" (326). The special Canadian establishments would have to be abandoned and the Army trained and organized so that it might take its place, in close co-operation with British formations, against the "belly of the enemy". On occasion it might be necessary to place Canadian divisions under the command of a British Corps or have British divisions under the command of a Canadian Corps. The target date for operations in North-West Europe was set for 31 Aug 43 - should there be a crack in German morale - but it was probable that raids might be mounted earlier against U-Boat bases on the Atlantic coast. By 1 Oct at the latest, allowing for delays, General McNaughton hoped to have the build-up of First Canadian Army completed (C.M.H.Q. Report No. 182).

188. During early February 1943 the presence in the United Kingdom of the Chief of the General Staff, Lieutenant-General K. Stuart, and Mr H.J. Carnichael, Chairman of both the Production Board, Department of Munitions and Supply and the Canadian Munitions Assignments Committee (Army), made it possible for a closer integration of supply matters to be discussed.

189. On 9 Feb General Lethbridge and Brigadier D. Campion (now Director of Army Requirements at the War Office) met with General Stuart at C.M.H.Q.; the B.G.S. and G.S.O.1(S.D.) also were present. General Stuart opened the discussion by agreeing in principle that the requirements of the Canadian Army must be tabled in a manner that conformed to the procedure followed in bidding for allocations of finished military stores. Therefore, the requirements of

the Canadian Army Overseas should be submitted to the War Office by C.M.H.Q.; those of the Canadian Army in the North American Area from U.S. production should be submitted in Washington by N.D.H.Q. C.M.H.Q. would inform N.D.H.Q. of all requirements submitted to the War Office and N.D.H.Q. would inform C.M.H.Q. of Canadian home requirements in respect of Canadian and American production.

190. General Lethbridge pointed out that the strategic plan produced at the Casablanca Conference now made it possible, for the first time, to prepare a complete statement of the total requirements of all the United Nations. Brigadier Campion considered that once such a statement was available the various production bodies should decide in what parts of the world munitions should be obtained in order to economize on shipping. It was believed, however, that the dangers of "double provision" could be avoided if Canadian production schedules were tied in with those of the British Group of Nations and the finished military stores made available for shipment anywhere. General Stuart then suggested that the existing backlog of equipment awaiting shipment from Canada might be issued to complete deficiencies of the Canadian Army at home; all future production then could be made available for assignment. General Lethbridge considered that such a request likely would be granted. With respect to bidding procedures those present agreed that:

- (a) Requirements of the Cdn Army Overseas from both U.S.A. and Cdn production with certain exceptions as agreed upon would be bid for at the L.M.A.B. and included in the bidding cable from London to Washington. The B.A.S. would then endeavour to secure an assignment either from Washington or Ottawa.
- (b) The requirements of the Cdn Army in Canada from U.S.A. production would be passed from Ottawa to the Canadian Army Staff, Washington, and the bid placed in Washington by the Canadian representative in co-operation with the British Army Staff. Such assignments as were made to Canada in this manner would not be subject to confirmation at L.M.A.B. (327).

It was further agreed that the list of continuing items the Canadian Army Overseas should still receive direct from Canada be kept to a minimum.

191. The War Office telegram to the British Army Staff in Washington, explaining the suggested procedure, included the following paragraphs:

...It has always been Canadian policy to provide equipment for all their forces. When Canadian overseas forces request provision of any item direct from Ottawa assignment of Canadian production they have agreed inform L.M.A.B. who will advise you. They have agreed to restrict

such items to a minimum and as far as possible to types peculiar to Canadian forces. Canadian B Vehicles continue however remain outside assignment machinery and will continue to be shipped direct to Canadian forces overseas from Canada....

Canada is making and may continue to make equipment for Canadian Army Overseas. If Canadian Army overseas is supplied from another source, the amount of Canadian deliveries due to their Army overseas would be divertible to other theatres in compensation as directed by L.M.A.B.

Since total empire production including the whole of Canadian production is set against the "overall" empire requirements as calculated by the War Office there should be no danger in theory of over provision in above arrangements. The real danger arises from imminence in certain cases of satisfaction of total requirements of empire and its allies. We hope however that in continuing production to maintain Canadian forces overseas, Canada will consult Ministry Supply to guard against that possibility (328).

192. Meanwhile, Mr Carmichael was discussing with officials at the Ministry of Supply the question of further integrating Canadian and British production. On 14 Mar General McNaughton and Mr Carmichael agreed that the former's responsibility should be limited to ensuring that the requirements of the Canadian Army Overseas were tabled in London and that N.D.H.Q. was so informed. It would then be the responsibility of the Departments of National Defence and Munitions and Supply in Ottawa to determine whether these requirements should be met from Canadian, British or American production, taking account of the need to conserve shipping (329).

193. During the latter part of March Brigadier W. Mavor, D.M.G.O.(B) at N.D.H.Q., arrived in the United Kingdom to study the question of what items of Canadian production then on order were still required by the Canadian Army Overseas and what disposition might be made of the balance (330). By now it was very evident that the manpower situation was such that First Canadian Army could not expect to have a separate Canadian base organization; therefore, the maintenance of a separate supply pipe line from Canada to the forward units was no longer feasible. On 5 Mar 43 the War Office had proposed that in order to avoid duplication - and dual lines of supply in an active theatre - Ordnance, Engineer and Medical stores should be held in joint depots in the United Kingdom and overseas theatres. On 3 Apr Brigadier Mavor told a meeting at Headquarters, First Canadian Army that he hoped the War Office could be persuaded to take over existing orders for stores and equipment being provided from Canada to ensure that there would be a continuing supply of these items for issue to Canadian units. General McNaughton considered that the War Office should be requested

to maintain a supply of such items in R.A.O.C. depots by the expedient of continuing to place orders in Canada. All were agreed, however, "that confidence should be placed in the War Office proposals to handle Canadian pattern stores" (331).

194 On 6 Apr Brigadier Mavor summed up his investigations in a long telegram to the Master-General of the Ordnance. In order to complete the equipment of the Canadian Army Overseas at the earliest possible date, C.M.H.Q. had placed demands on British depots for practically all its deficiencies, supported, where necessary, by bids at the London Munitions Assignment Board. Only where Canadian items were definitely superior, or more readily available, was shipment still being sought from Canada. Brigadier Mavor considered that it was impracticable to continue to ship Canadian technical and general stores to Canadian depots in the United Kingdom because:

- (a) The requirements are and have been most urgently required and therefore time in transit and uncertainty of deliveries are paramount factors.
- (b) Vital importance economy of shipping.
- (c) Manpower ceiling does not permit sufficient ordnance personnel being allotted to hold all requirements in Cdn BOD. In fact recent conference with Army Comd agreed that all items except A and B vehicles should be held in British depots.
- (d) Insufficient storage space to hold all Canadian equipment and unlikely that further accommodation can be requisitioned or constructed (332).

He understood that the War Office had already included the requirements of the Canadian Army Overseas in its total empire statement and that the Ministry of Supply had placed contracts around the world on this basis (except for Canadian "A" and "B" vehicles). Brigadier Mavor suggested that the problem was one for the Minister of National Defence to discuss with the Department of Munitions and Supply. As a result of informal talks at the War Office he recommended that the Ministry of Supply should be asked to take over the undelivered portions of orders placed by the Department of National Defence on behalf of the Canadian Army Overseas and that orders in equal amounts should be cancelled by the Department of National Defence; that is, except for vehicles and other agreed items of continuing Canadian supply. Brigadier Mavor then envisaged the following bidding and provision procedures for the Canadian Army Overseas:

- (a) C.M.H.Q. will bid at L.M.A.B. for all requirements of C.A.O. (excluding vehicles). Shipments would be made to British Central Ordnance Depots.

- (b) Provision on all the above excluding vehicles and other agreed exceptions will be made by Troopers and Splymin. [War Office and Ministry of Supply].
- (c) Provision of vehicles and other items agreed as continuing Cdn supply will remain responsibility of Defensor [N.D.H.Q.].
- (d) Consider that the following provisos should be included if proposed policy is adopted.
 - (i) That C.M.H.Q. should have the right to claim first priority on Canadian production assigned to L.M.A.B. by C.M.A.C. (Army).
 - (ii) That Splymin should take over all outstanding orders placed by D.N.D. with Munitions and Supply (excluding the agreed exceptions) on behalf of C.A.O.

Coupled with this, he suggested the following procedure for handling Canadian production:

- (a) D.N.D. would bid for Canadian Army North American Area.
- (b) The U.K. would bid for Empire requirements exclusive of Canadian Army North American Area but inclusive of C.A.O.
- (c) The U.S. would bid for monthly deliveries against W.S.L. orders.

The provision action behind such bidding (excluding the agreed exceptions) would be:

- (i) D.N.D. would make provision for the Cdn Army North American Area only by placing orders with D.M. & S.
- (ii) W.O. would make provision for Cdn requirements exclusive of Cdn Army North American Area by tabling these requirements with Splymin who would place orders on D.M. & S. or elsewhere in accordance with world production plan.
- (iii) The U.S. would provision by placing orders through W.S.L.

195. On 13 May a telegram was despatched from C.M.H.Q. advising that the War Office had agreed officially to the proposed bidding procedure. The following items would not be bid at the London Munitions Assignment Board:

- (b) Provision on all the above excluding vehicles and other agreed exceptions will be made by Troopers and Splymin. [War Office and Ministry of Supply].
- (c) Provision of vehicles and other items agreed as continuing Cdn supply will remain responsibility of Defensor [N.D.H.Q.].
- (d) Consider that the following provisos should be included if proposed policy is adopted.
 - (i) That C.M.H.Q. should have the right to claim first priority on Canadian production assigned to L.M.A.B. by C.M.A.C. (Army).
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195. On 13 May a telegram was despatched from C.M.H.Q. advising that the War Office had agreed officially to the proposed bidding procedure. The following items would not be bid at the London Munitions Assignment Board:

- (a) Common items required from Canada on grounds better quality.
- (b) Common items required from Canada on grounds insufficient allocation from IMAB.
- (c) Items ex-Cdn production peculiar to Cdn Army.
- (d) A and B vehicles ex-Cdn production.
- (e) Vehicles, motorcycles and engineer stores including tractors ex-U.S.A. production(333).

Any of the above exceptions that were assignable in either Ottawa or Washington were to be bid for by an N.D.H.Q. representative on behalf of the Canadian Army Overseas; the British Army Staff representative would merely support the Canadian bid in Washington for items from American production (see para 150).

196. Meanwhile, a joint War Office-C.M.H.Q. committee was studying the proposed merger of British and Canadian supply channels for Ordnance, Engineer and Medical stores. A meeting held at the War Office on 27 May agreed in principle to the following policy, which was subsequently approved by General McNaughton:

1. That stocks in the UK of Canadian pattern Ordnance stores with certain exceptions as enumerated in note below will be transferred and held in bulk by British Depots, issues from these depots to be made in detail to Canadian forces in the UK and in bulk to Canadian and British Base Depots in a theatre of War. Canadian stocks in the UK of Engineer and Medical Stores will not be transferred to British Depots but will be retained under Canadian Control. When operations commence these Engineer and Medical stores will be supplied to Canadian formations abroad through British base depots in this country and abroad.

NOTE. A vehicle depot will be retained by the Canadian Forces in the UK to handle those A & B Vehicles which remain Continuing Canadian supply. A limited MT Spare Parts Depot will be retained to hold Ram Tank Spares, "A" Vehicle Armament and Spares, Special Tools and to provide spare parts service for the CBOW [Canadian Base Ordnance Workshop]. Also a Canadian sub depot for assemblies.

2. That certain distinctive Canadian pattern stores which it is desirable should continue to be supplied from Canada shall be included in the appropriate sections of British vocabularies under the heading of "Canadian Section or Sub Section"....

3. Canadian depots that may be provided abroad will be used primarily to maintain Canadian Forces. In addition, however, these depots will be prepared to maintain any British formations or units which may be allocated to them for maintenance.
4. Should Canadian formations or units be allocated for maintenance permanently or temporarily to British depots in the field such depots will hold a stock of Canadian pattern stores. These stores will normally be reserved for issue to Canadian forces only but in an emergency either British or Canadian type stores will be issued according to availability irrespective of the nationality of the receiving unit.
5. In order to simplify the maintenance problem when Canadian and British formations operate from a common base as a part of a single force it is highly desirable that the equipment used by each should be of common pattern. Therefore it should be a cardinal principle that insofar as possible each type of stores or articles of clothing provided should be equally suitable for issue to British or Canadian units. This can be effected if British designs are in future accepted for Canadian forces and if where little difference in specification exists and no spare parts problem is involved existing stocks of British and Canadian patterns are merged under one vocabulary designation (334).

197. On 26 Jun General McNaughton advised C.M.H.Q. that it was now accepted policy that "First Cdn Army shall be organized and equipped in accordance with the War Office pattern for British Armies. Only a comparatively few items of eqpt are reserved as continuing Cdn supply" (335). In most cases, War Office equipment policy would apply to the Canadian Army Overseas without review; C.M.H.Q. would apply War Office changes in policy without prior reference to First Canadian Army. Only in instances where British policy was at variance with accepted Canadian practice should reference be made to the General Staff at Headquarters, First Canadian Army.

198. Although questions of policy were involved the Minister of National Defence does not seem to have been advised as to what was being planned until early June. Mr Ralston's views were finally conveyed to Generals McNaughton and Montague in a telegram of 16 Jun. Although the Minister of National Defence was impressed by the practical advantages - conserving shipping and manpower and eliminating dual lines of supply in an operational theatre - this telegram pointed out that:

At the same time he feels that a major matter of policy is involved since under the proposed arrangement Canada will appear to be divesting herself of responsibility for provisioning CAO in respect of the majority of items of equipment and supply and to be leaving CAO to depend on

UK for such items. While it is true that if the service provided by the WO proved unsatisfactory request could be made for provision action from Canada it might not be possible at that time to readjust Cdn production to meet the situation quickly. Therefore any idea that CAO would by the proposed arrangement be able to get the best of both worlds might well prove elusive (336).

Therefore, the following proposals were advanced:

- (a) The responsibility for all provision action for the CAO would rest with the War Office except in the case of items of continuing Cdn supply....With this exception all items would be submitted as requirements to the WO which would assume responsibility for provision and take the necessary action to supply.
- (b) Consequently NDHQ would take no further provision action for the CAO except in respect of items [of continuing Canadian supply] unless specifically [sic] by CMHQ. Whether any such specific request could be met would depend on whether the production situation here which might have been altered in consequence of the arrangement could be adequately readjusted again.
- (c) Since NDHQ cannot escape responsibility if provision were not forthcoming it is essential that CMHQ ensure that effective provision action is taken by the WO for the CAOS immediate and future needs. This is vitally important.
- (d) Therefore it is essential that necessary machinery be set up at CMHQ for liaison with Troopers to ensure that above is done. It should also be borne in mind that NDHQ has a responsibility to Cdn industry therefore CMHQ should keep DM and S London advised at all times.
- (e) If you require assistance in setting up machinery we are prepared to send you competent officers conversant with provision to establish machinery mentioned in para 3(c). Please advise.
- (f) A list of stores previously requisitioned for CAO on Odn production and which under this policy would be surplus to Cdn requirements would be given to DM and S in Canada who would negotiate direct with M of S as to their being taken over by UK.
- (g) Bidding procedure to remain as at present arranged....

- (h) The list mentioned in clause (f) would not include any item which you have requested as continuing Cdn supply...and for provision of which NDHQ would be responsible and would take provision action.
- (i) The methods of accounting and financial adjustment involved in the proposed arrangement are under discussion but have not been completely worked out and the arrangement would therefore be subject to a satisfactory solution of those problems which arise particularly because of mutual aid legislation.

199. The reply despatched by Generals McNaughton and Montague on 4 Jul agreed that the above proposals formed the only practicable solution; but it was emphasized that the repeatedly changing role of First Canadian Army necessitated re-equipment, for which the only source was the War Office. However, the following assurance had been received on 25 Jun:

War Office accepts responsibility for meeting Cdn demands and therefore by implication for ensuring that stocks in a theatre are sufficient to meet the needs of the Cdn and Brit forces engaged therein. As regards meeting your demands I can only assure you that Cdn units will be treated pari passu with British units. Any shortfalls in a particular type of equipment would of course re-act equally on both armies and I am sure you did not intend to seek an assurance that Cdn Army demands would under all circumstances be met 100% (337).

200. R.C.O.C. provision officers would be located in British Central Ordnance Depots to check provision action made on behalf of the Canadian Army Overseas and to act as liaison with C.M.H.Q. In the case of items of continuing Canadian supply they would forward demands to C.M.H.Q. for transmission to Canada. N.D.H.Q. was requested to provide three such provision officers. Endeavouring to justify the new procedure, this telegram continued as follows:

Based on our experience with British Central Ordnance Depots in the past 12 months we feel that we can count on securing satisfactory service in filling our demands. In the past three months particularly we have had to draw heavily on them for issues of controlled stores and they have given us excellent service and co-operation. This has in large measure been possible by the considerable improvement in the supply situation....

...it is true that the service provided by the special Cdn Group of British Field Stores at Aldershot was far from satisfactory leading up to our recommendation to form a Cdn Base Ordnance Depot. This was due primarily to the fact that the

British were attempting to serve us from a separate sub-depot at Aldershot that did not form a part of their Central Ordnance Depot Organization, and at the same time this sub-depot was endeavouring to handle a considerable number of items as Cdn supply. The agreement that the number of items of continuing Cdn supply are to be restricted permits the incorporation of these items in stocks of British Central Ordnance Depots....(338).

201. The adoption of the "capitation" rate for maintenance requirements made it no longer necessary to check repayment vouchers covering stores, so there would not be a large amount of paper work connected with the new procedure. Due to manpower restrictions it had been decided, if the War Office would agree, not to mobilize a Canadian Advanced Ordnance Depot in the proposed theatre of operations but to use British base installations. The personnel of the existing Canadian Base Ordnance Depot would be utilized in the continuing, modified Central Ordnance Depot and as reinforcements.

202. A further telegram of 15 Jul proposed that the War Office should take over all Canadian stores already in Canadian depots at an agreed amount, based on British vocabulary prices; also, all forthcoming shipments from Canada on the same basis. Thereafter, all issues to Canadians would be paid for either under the capitation rate for maintenance or as initial equipment. Where the equipment had been given the British as Mutual Aid, the amount would be balanced against the Canadian account for further stores and equipment. Payments by the Canadian Treasury would be a British credit against the Mutual Aid fund (339).

203. The Minister of National Defence was not happy about these negotiations, however, and discussed the whole matter with Generals McNaughton and Montague during his visit to the United Kingdom. During the course of a meeting at C.M.H.Q. on 4 Aug, also attended by General Stuart who had arrived back from the Mediterranean, Mr Ralston sought assurance that items of continuing Canadian supply received into R.A.O.C. depots in the United Kingdom would be issued exclusively to the Canadian Army Overseas: and that no diversion of such stores would be made without first securing Canadian agreement. He was told that such an assurance had been given during discussions with the War Office but that verification would now be sought. Mr Ralston also wanted assurance that munitions assigned in Ottawa to the Canadian Army Overseas should reach that destination. According to the memorandum of this meeting:

He was informed that the whole organization of assignment and distribution of eqpt for the United Nations was predicated on "Q" making proper delivery of equipment assigned by "GS" and there was no reason to believe that the procedure would fail in the case of eqpt assigned by Ottawa. Nevertheless DQMG intended to arrange a follow-up system to ensure delivery as quickly as practicable to the Cdn Army Overseas.

General McNaughton pointed out that this whole arrangement, which involved the placing of our requirements with the War Office, was predicated on the inherent right of reversion to placing all orders or any particular requirement on NDHQ in the event of our failing to achieve satisfaction or fair treatment through the War Office channels (340).

204. On 10 Aug Major-General C.A.P. Murison, Deputy Quartermaster-General (Army Equipment) at the War Office, confirmed in writing that "stores of continuing Canadian supply held on behalf of Canadian Forces in this country will be issued exclusively to Canadian units and that no use will be made of such stores for British troops without first obtaining your agreement." (341) However, as General Montague's letter of 9 Aug had conceded, "no similar guarantee can be given when stores of continuing Canadian supply reach a theatre of war overseas in which British and Canadian troops are operating together, although every effort will be made to reserve such stores for Canadian units."

205. A Canadian Army Requirements (London) section was established within the Q.M.G. Branch at C.M.H.Q. to co-ordinate the provision of all types of equipment for the Canadian Army Overseas and to ensure that existing channels with the War Office and N.D.H.Q. were effectively used. This C.A.R.(L) section took over most of the functions hitherto performed by the Canadian Army Requirements Committee (342). The actual tabling of bids with the London Munitions Assignment Board, through the War Office, remained a General Staff responsibility, however, devolving upon representatives of Staff Duties (Weapons) at C.M.H.Q. In addition to the Army Assignment Sub-Committee's monthly meeting to deal with major items of controlled stores, the following meetings were held monthly at the War Office and generally required the presence of a Canadian representative:

D.C.S. Allocation and Bidding Meeting
Infantry Allocation and Bidding Meeting
R.A.C. Allocation and Bidding Meeting
Artillery Allocation and Bidding Meeting
Signals Allocation and Bidding Meeting
"B" Vehicles Allocation and Bidding Meeting
Engineer Stores Allocation and Bidding Meeting
Branch Priority Meeting
Army Ammunition Allocation Meeting (343)

206. Negotiations were soon concluded between the Department of Munitions and Supply and representatives of the Ministry of Supply in Ottawa as to which contracts for munitions now surplus to the requirements of the Canadian Army Overseas would be taken over for the British Government and which Canada would have to dispose of herself (344).

207. During October 1943 the task of transferring Ordnance stores from Nos. 2, 3 and part of 5 Sub-Depots to the appropriate British Central Ordnance Depots was completed; the remainder of the Canadian Base Ordnance Depot was reorganized into an M.T. Technical Stores Company to hold a three months' supply of parts for the Canadian Base

Ordnance Workshop and other special spares not common to the British Army, a Vehicle Company to receive, hold and issue "A" and "B" vehicles arriving from Canada or returned from field units, and a boot Repair Shop. (Early in 1944 this unit was re-designated No. 1 Canadian Central Ordnance Depot and the vehicle company reorganized into five self-contained vehicle reserve depots.) (345) Acceptance at the higher levels had been made easier by the Canadian Government's desire to have the balance of a complete army corps despatched to the Mediterranean, which action wrote finis to the dream of a self-contained Canadian Army in the field (C.M.H.Q. Report 182).

208. Proposals to limit further the number of items of continuing Canadian supply (see Appendix "B") met with limited success during the autumn of 1943. Although it was agreed that American-produced heavy engineer equipment and "A" vehicles should be deleted from continuing Canadian supply and bids placed at the London Munitions Assignment Board, it was considered that, for the present at least, "B" vehicles from both American and Canadian production should still be obtained through N.D.H.Q. auspices (346). During the course of a meeting at Headquarters, First Canadian Army on 9 Nov, the Master-General of the Ordnance was told that the overall vehicle situation would have to be cleared before pooling with the British could be considered. General Young agreed that actually it was easier for the Canadian Army Overseas to obtain its requirements for American-produced vehicles under the existing arrangement. It had been agreed earlier during his visit that any changes in the list of items of continuing Canadian supply should be made by mutual agreement between C.M.H.Q. and N.D.H.Q., in view of the fact that provision action in Ottawa would most likely be affected (347).

(ix) Supply Procedure in Italy and North-West Europe

209. For their supposedly short stay in the Mediterranean the equipment of the 1st Canadian Infantry Division and 1st Canadian Army Tank Brigade had been augmented by the War Office to bring it to Eighth Army standards (348). The Force was equipped with Canadian-built "B" vehicles and universal carriers but Sherman tanks were provided from British stocks. The supply of Ordnance, Engineer, Medical and Dental stores and office machinery in the theatre was a British responsibility. Requirements for items of continuing Canadian supply (including "B" vehicles) were to be demanded through theatre channels from the War Office, whose provision directorates would request C.M.H.Q. to ensure that sufficient quantities were made available to British Central Ordnance Depots in the United Kingdom for despatch to the Mediterranean. As a temporary measure, monthly maintenance quantities of boots ankle, "Canada" badges, unit titles, distinguishing patches and cap badges were forwarded automatically to the Central Ordnance Depot at Branston for outward transmission until definite demands should be received through normal British provision channels (349). Canadian units indented for warlike stores direct to their formation's Ordnance Field Park, which carried stocks of spare parts for M.T., armament, signal,

wireless, engineering equipment and small arms, as well as complete wireless sets and small arms, to meet what were to be constant demands. Once the whole Force was ashore and the Ordnance Beach Detachments had disappeared, bulk demands for artillery equipments, clothing and general stores were sent periodically by the formation R.C.O.C. staff to the British Advanced Ordnance Depot; upon receipt the R.C.O.C. personnel at once broke bulk and made detailed issues to units. Vehicles were ordered forward from the vehicle company attached to the Advanced Ordnance Depot, to make good unit casualties reported to formation headquarters, and delivery generally was effected at an Ordnance Field Park (350).

210. By the time it was decided to despatch the remainder of the 1st Canadian Corps to Italy the agreement to merge British and Canadian supply channels was being put into effect. In order to conserve shipping, it was now agreed that most of the units would take with them only their personal scale of clothing, equipment and weapons (plus binoculars, watches, compasses, 2-in. mortars and Bren guns) and would take over the equipment relinquished by the British formations returning to the United Kingdom (351). Arrangements were made for a two months' maintenance supply of boots ankle, "Canada" badges, unit titles and other peculiarly Canadian items of personal equipment for all units to be forwarded at once from the Central Ordnance Depot at Branston, along with a sufficient quantity of battle dress to provide a second suit for the personnel already serving in the Mediterranean (352). In practice, however, most of the equipment left in Sicily for the incoming Canadian units was badly worn after long service with the Eighth Army; included, moreover, were many two-wheeled drive vehicles which were considered quite unsatisfactory, by Canadian standards, for service in a theatre of war (353). After considerable pressure had been exerted to hasten the necessary re-equipment from the limited resources available in the theatre, an arrangement was concluded whereby 3500 Canadian "B" vehicles were despatched from the United Kingdom and deducted from the total that were to have been provided from Canadian sources for the returning British formations (354).

211. In the face of rumours drifting back to Ottawa early in 1944 to the effect that Canadian troops in Italy were being issued with British clothing and equipment, C.M.H.Q. was requested to investigate and thereafter provide a monthly statement of any deficiencies (355). In a further telegram of 27 Mar 44 the Master-General of the Ordnance stressed that, since over 10,000 Canadian four-wheeled drive "B" vehicles had been shipped from the United Kingdom, there was no justification for British two-wheeled drive vehicles being issued to Canadian units in Italy. Furthermore, he was not happy about the procedure whereby the War Office was recognized as being responsible for provisioning to such an extent that equipment available in Canada could not be shipped to Italy, when the items were not those recognized as being "continuing Canadian supply". His telegram went on to point out:

We appreciate advantages of single lines of communication but feel that you are inclined to consider ultimate provisioning responsibility as resting with Troopers rather than with NDHQ and CMHQ....

...Apparently you have no direct information as to equipment state of CMTF but are depending on Troopers who have not supplied or cannot supply this advice. Understand information on personnel is relayed directly to CMHQ from Cdn forward echelons in Italy. Query why this cannot be done also in case of equipment since there is Q representation in the Mediterranean (356).

212. A reply could not be despatched from C.M.H.Q. until 19 Apr. The Corps Commander had reported that deficiencies and defects of vehicles were not so serious as to prejudice the successful outcome of operations; however, General Burns would like to have 2679 additional Canadian "B" vehicles and universal carriers to replace the still remaining British vehicles. Equipment returns were consolidated at Headquarters, Eighth Army and not by Canadian Corps, of other corps. Since it was not practicable to have units make duplicate returns it was recommended that the British figures should be accepted (357).

213. It was subsequently agreed that 2750 Canadian "B" vehicles should be despatched to replace the British vehicles held by the 5th Canadian Armoured Division and that 5750 further Canadian vehicles should be despatched to provide a maintenance reserve in A.A.I. until the end of 1944. This last was to be a Canadian responsibility as long as Canadian troops should remain in the Mediterranean. In order to conserve shipping space from the United Kingdom, however, arrangements were made to ship 7000 crated "B" vehicles direct from Canada to the Mediterranean; only the remainder, chiefly vehicles with special technical equipment, were sent forward from the United Kingdom. C.M.H.Q. provided special tools and parts and an officer to supervise the assembly of these vehicles at British depots in Italy (358).

214. On the assumption that a five months' stock of other items of continuing Canadian supply must now be available in Base and Advanced Ordnance Depots, during February 1944 the War Office had requested the Central Ordnance Provision Office, Middle East to start submitting its requirements so that an end might be made to the existing practice of making automatic monthly shipments from the United Kingdom. There seems to have been some misunderstanding by Central Mediterranean Force as to the need to submit demands for its future requirements of items of continuing Canadian supply, however, and a last automatic shipment had to be ordered forward from the United Kingdom during April 1944 to ensure that sufficient stocks would be on hand until the prescribed procedure should be working properly (359).

215. Meanwhile, last minute preparations were being made for what was left of First Canadian Army to participate in the invasion of North-West Europe. Back on 7 Aug 43 the A.C.I.C.S. had directed that First Canadian Army should continue to state its requirements for controlled stores and bid direct on the War Office: at the same time, First Canadian Army should receive equal priority with other formations of the new 21 Army Group (360). Not until 18 Jan 44, and in response to a Canadian suggestion, did Headquarters, 21 Army Group propose the adoption of the following procedure for the provision of War Office controlled stores to First Canadian Army:

- (a) 21 Army Group advise War Office of total group requirements, showing Canadian requirements as a separate item, with a copy to Headquarters First Canadian Army (SD).
- (b) On being notified by 21 Army Group that War Office agree to the demand, First Canadian Army request CMHQ to take provision action in respect of the Canadian requirements shown, quoting the reference of 21 Army Group's demand to War Office.
- (c) CMHQ take provision action for Canadian requirements as shown by 21 Army Group, advising the War Office that the demand is in accordance with 21 Army Group's statement of Canadian requirements.
- (d) War Office release to CMHQ in accordance, where necessary, with priorities laid down by 21 Army Group (361).

216. This system of obtaining controlled stores through C.M.H.Q. was soon seen to be somewhat cumbersome and the A.Q.M.G.(A.E.) at Headquarters, First Canadian Army recommended that it would be more simple to deal direct with Headquarters, 21 Army Group for all requirements except items of continuing Canadian supply (362). There was general agreement that such a procedure would be necessary once First Canadian Army left the United Kingdom (363). It was pointed out by the B.C.S. at C.M.H.Q., however, that Headquarters, First Canadian Army would have no further contact with No. 1 Canadian Central Ordnance Depot: Canadian vehicles would be released in bulk to the War Office to meet operational requirements and would be issued to Canadian units from British depots (364). Only on 15 May 44 was it possible for the War Office to advise Headquarters, 21 Army Group that the following procedure should be adopted forthwith:

- (a) All First Canadian Army requirements for controlled stores, incl "A" and "B" vehicles, will, where the automatic replacement of stores and vehicles on agreed scales is involved, be forwarded to 21 Army Group through "C" channels. If provision is considered inadequate, "C" First Canadian Army will advise G(SD) who, if circumstances so require, will request SD 21 Army Gp to alter the priority of allocation of the stores or vehicles concerned.

- (b) Requirements for release of controlled stores over and above unit entitlements as shown in A.F.sG. 1098, W.Es. or agreed scales, will be forwarded to 21 Army Group through SD channels with notification to Q (AE) First Canadian Army.
- (c) With regard to items of continuing Canadian supply, 21 Army Group will advise War Office of the bulk requirement, and War Office will request CMHQ to supply from Canadian stocks or to arrange provision.
- (d) The right to appeal to War Office through CMHQ is reserved, if First Canadian Army consider that supply through 21 Army Group is inadequate or otherwise unsatisfactory. The following procedure will be used:
 - (i) Unless directly advised to the contrary by First Canadian Army, CMHQ will presume that 21 Army Group is taking all necessary steps to maintain First Cdn Army entitlements of vehicles and equipment.
 - (ii) If First Canadian Army considers that the provision action taken by 21 Army Group for the Canadian portion of the force is inadequate, CMHQ will be advised, stating details.
- (e) All statistical controlled store deficiency reports produced by 21 Army Group will show requirements and holdings of Cdn fms separately.
- (f) L.M.A.B. entitlement sheets as compiled by CMHQ, showing First Canadian Army deficiencies will be discontinued. Requirements of First Canadian Army will no longer be shown separately on L.M.A.B. Agendas, but will be bulked with those of 21 Army Group. The bulk allocations and issues will then be made against these requirements (365).

217. At the insistence of General Crerar a further paragraph (g) was added to the above procedure by the War Office on 15 Sep 44, after the concurrence of the interested parties had been obtained:

- (g) When First Cdn Army states a requirement for a type of eqpt not in demand by 21 Army Gp, or of a purely Cdn sup, that requirement will be stated directly to C.M.H.Q., with a copy to 21 Army Gp. C.M.H.Q. will make the necessary Cdn investigations and recommendations in respect to the requirement and will forward it to the War Office for information of all concerned (366).

218. What would appear to have been the last fly in the ointment was an attempt during the autumn of 1944 to have the holdings of Canadian and British "B" vehicles within 21 Army Group pooled. Canadian officers were aware, however, that 21 Army Group possessed a surplus of two-wheeled drive (4x2) British vehicles and considered that this was merely another attempt to palm off inferior vehicles on First Canadian Army. As it was, there had been instances when Canadian four-wheeled drive vehicles held in the theatre as reserves for Canadian formations had been issued to British units, irrespective of the fact that no case of operational necessity had been decreed at the highest level (367). General Crerar registered his opposition when advised of the proposal and instructed the Deputy Director of Ordnance Services for First Canadian Army that Canadian vehicles shipped to North-West Europe on Canadian account must not be issued to British formations without consulting the Army Commander's staff: "Any releases authorized during an emergency were to be notified to the Canadian Section G.H.Q. 1st Echelon for record and future recovery in kind if possible" (368). The existing procedure was continued. Canadian "B" vehicles were moved forward from No. 1 Canadian Central Ordnance Depot in accordance with staff tables prepared at the War Office against the requirements submitted by Headquarters, 21 Army Group. En route to, or at, the port of shipment from the United Kingdom such vehicles entered the British pipe-line. Ultimately they reached a British Vehicle Reserve Depot, where a Canadian liaison officer was stationed to observe and report upon their disposition (369).

CONCLUSION

219. With the coming of victory the problems involved in producing and allocating munitions of war could be shelved for the time being at least. On 31 Dec 45 the duties and functions of the Department of Munitions and Supply were taken over by a newly created Department of Reconstruction and Supply and the task of disposing of the stocks of munitions considered surplus to the requirements of Canada's continuing Armed Forces was accelerated by the War Assets Corporation. Within five short years, however, many of the wartime equipment problems began to re-appear, as Canada contributed forces for the United Nations' intervention in Korea and pledged herself to support the North Atlantic Treaty Organization. That, however, is another story.

220. This Report was compiled by J. Mackay Hitsman.

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APPENDIX "A"

CANADIAN MUNITIONS ASSIGNMENTS COMMITTEE (ARMY)

SCHEDULE OF ASSIGNABLE ITEMS (370)

Section I of this Part is a list of items subject to assignment by the Canadian Munitions Assignments Committee (Army) as of August 31, 1943. As stated in the Precis this list is subject to expansion by the inclusion of other items at the request of any interested claimant where such item involves two or more claimants.

Section II of this Part is a list of those items which have at some time been dealt with on an assignment basis by the Canadian Munitions Assignments Committee (Army) but which by mutual agreement have been deleted from the Assignable List. It should be pointed out also that if and when the occasion should arise, these items upon request are capable of being recalled to the Assignable List.

SECTION I

SMALL ARMS

1. Bren Light Machine Gun
2. Snipers Rifle
3. Rifle No. 4 Mk. I
4. Carbine Machine Sten Mk. II
5. Bomb Thrower 2" Mk. I
6. Trench Mortar 2" Mk. II
7. Magazine Bren Mk. II (100 rd.)
8. Browning .30 Cal. M1919A4 M.G.

SMALL ARMS AMMUNITION

9. .303" Ball Mk. VII and Mk. VIIIZ
10. .303" Tracer "G" Mk. I and Mk. II (Long Trace)
11. .303" Tracer "G" Mk. IV and Mk. VI (Short Trace)
12. .303" A.P. "W" Mk. I
13. .303" Incendiary "B" Mk. VII
14. .380" Ball Mk. II
15. 9 MM Ball
16. .55" Boys A.P.

SECTION I (Cont'd)

SIGNALS

17. R.B. Sets
18. Wireless Sets No. 19
19. Installation Kits (Truck and Ground) for #19 Set
20. Wireless Set Canadian No. 43
21. Wireless Set Canadian No. 9
22. Charging Set 300 Watt
23. Lamps Signalling Daylight
24. Switchboard 10 Line U.C.
25. Receivers A.R. 88
26. R.W.G. Equipment (SCR 588)
27. Ames II (RW/M Equipment)
28. Telephone D Mk. V
29. Wireless Set No. 58 Mk. I
30. Fullerphones Mk. IV
31. Receivers CR 103
32. Transmitters AT 3

INSTRUMENTS

33. Computers DZ (Craig Computers)
34. Altimeter AYC (RA/AL)
35. Dial Sights No. 9
36. Computers Height No. 2 Mk. I
37. Clinometers Field Mk. VI
38. Clinometers Sight Mk. IV
39. Binoculars 6 x 30
40. Binoculars 7 x 50
41. Compasses Prismatic Liquid Mk. III
42. Range Finder No. 12 Mk. VI

SECTION I (Cont'd)

GUNS

43. 40 MM Bofors Equipments
44. 40 MM Bofors Loose Barrels
45. 3.7" A.A. Equipments
46. 3.7" A.A. Loose Barrels
47. 6 Pdr. Tank and A/T Guns Mk. III

GUN AMMUNITION

48. 40 MM H.E.
49. 25 Pdr. H.E.
50. 6 Pdr. A.P. (and A.P.C.B.C.)
51. 3.7" A.A. H.E.
52. 3" Mortar Bomb H.E.
53. 2" Smoke Bomb B.T. (AFV)
54. 2" Smoke Bomb M.L.
55. 75 MM Smoke
56. Grenade Hawkins No. 75

ARMoured FIGHTING VEHICLES

57. Universal Carriers
58. Scout Cars
59. Armoured Cars
60. 25 Pdr. S.P. Mounts
61. 15 cwt. Armoured Personnel Trucks

SECTION II

Items which have been assigned upon occasion by the Canadian Munitions Assignments Committee (Army) but which by agreement have been deleted from the List.

SMALL ARMS

1. Rifle Boys A/T Mk. I

SECTION II (Cont'd)

SMALL ARMS AMMUNITION

2. 22" Ball
3. .455" Revolver Mk. VI
4. 20 MM Hispano H.E.I.

SIGNALS

5. Reception Sets AR 77 and AR 77E
6. Syko Cyphers

INSTRUMENTS

7. Telescopes Sighting No. 32 Mk. I
8. Directors No. 7 Mk. II
9. Sights 3" Mortar
10. Range Finder No. 2 Mk. IV and Mk. VI
11. Range Finder No. 13 Mk. II
12. Tubes Vent Electric .5" (classed with instruments for brevity)

GUNS

13. 6 Pdr. A/T Carriage
14. 25 Pdr. Gun and Carriage
15. 25 Pdr. S.P. Gun (now dealt with as S.P. Mount)

GUN AMMUNITION

16. 2 Pdr. A.P.
17. 4.2 Trench Mortar Bomb, H.E.
18. Grenades No. 77 (filled w/p)
19. 25 Pdr. Smoke

ARMoured FIGHTING VEHICLES

20. Light Recce. Cars
21. Military Landing Craft

APPENDIX "B"

LIST OF ITEMS OF CONTINUING CANADIAN SUPPLY (371)

GROUP I

ITEMS OF CONTINUING CANADIAN SUPPLY TO CANADIAN DEPOTS IN U.K.

(A) Vehicles & Associated Equipment and Stores.

All A and B Vehicles (list attached) and Ram Spares with the exception of certain items as follows:-

A vehicle spare parts except Ram Tank spare parts
B vehicle spare parts
Certain types of M.T. vehicles agreed with Director of Mechanization (marked on list attached).

Special M.T. Tools (Vehicle, Workshop and Fitters)

(B) Technical Stores.

All vehicle armament and vehicle armament spares for "A" vehicles being supplied.

Generators AC-DC 250 watt. (ZL Mach Lorries)
Generators Homelite X-ray 2.5 KW (Dental Lorries)

(C) General Stores.

Nil.

(D) Engineer Stores.

D/4 Tractors.
D/7 Tractors
Auto Patrol Caterpillar 112
Auto Patrol Adams 412
Graders 5 Ton Richardson
Graders 2½ Ton Richardson
Excavators Dominion 350
Excavators Browning
Ditchers Barber Green
Sheeps Foot Rollers 11'
Moto Cranes - Lorrain
Rippers or Rooters
Rollers Tandem 5-7 ton
Scrapers Carryall (6yd) Letourneau D/7 Model L
Scrapers Carryall (8yd) Letourneau D/7 Model LS
Scrapers Carryall (4yd) Letourneau D/4 Model X
Electric Welders
Transporters 8 ton
Transporters 16 ton
Transporters 20 ton
Angle Dozers D/4

GROUP I (Cont'd)

Hysters D/4
 Power Control Units D/4
 Angle Dozers D/7
 Hyster D/7
 Power Control Units D/7

Engineer Tunnelling Equipment.

VEHICLES OF WHICH REQUIREMENTS FOR CANADIAN ARMY (OVERSEAS)
 ARE SUPPLIED FROM CANADA

("A" VEHICLES)

APPROVED TYPES

| | |
|-------------------------------------|----------------------------|
| Armoured Cars | Tanks Cruiser (Ram only) |
| Armoured Command Vehicles ϕ | Tanks Command (Ram only) |
| Carriers Universal | Tanks Recovery (Ram only) |
| Carriers 3-inch Mortar | Tanks Bridge Laying ϕ |
| Carriers Armoured O.P. | 25-pdr S.P. Tracked ϕ |
| Carriers Wheeled | S.P. Ammunition Carrier |
| Scout Cars Universal | S.P. Command Post |
| Armoured Demolition Vehicles ϕ | Rotatrailers. |

("B" VEHICLES)

APPROVED TYPES

| | |
|--|---|
| Motorcycles Solo Light ϕ | Lorries 3-ton G.S. (Refrigerator) |
| Motorcycles Solo Heavy | Lorries 3-ton G.S. (Slave Battery) |
| Cars 5-cwt | Lorries 3-ton Ambulance |
| Trucks Heavy Utility Personnel | Lorries 3-ton Disinfecter |
| Trucks Heavy Utility Personnel (Comp) | Lorries 3-ton Derrick |
| Trucks Heavy Utility Wireless | Lorries 3-ton C.W.D. Laboratory \times |
| Trucks Heavy Utility Ambulance | Lorries 3-ton Air Support Control Office |
| Trucks Heavy Utility Machinery "ZL" | |
| Trucks 15-cwt G.S. | Lorries 3-ton Dental |
| Trucks 15-cwt Office | Lorries 3-ton Surgery |
| Trucks 15-cwt Personnel | Lorries 3-ton Bulk Petrol (800 Galls) |
| Trucks 15-cwt Water | |
| Trucks 15-cwt Machinery "KL" | Lorries 3-ton Battery Storage |
| Trucks 15-cwt Wireless | Lorries 3-ton Machinery "D-1" |
| Trucks 15-cwt Fitted for Wireless | Lorries 3-ton Machinery "I" |
| Lorries 3-ton 134" Wireless | Lorries 3-ton Machinery "I-30" |
| Lorries 3-ton 134" Signals | Lorries 3-ton Machinery "J" |
| Lorries 3-ton 134" Signals (W/Penthouse) | Lorries 3-ton Z.P.I. Stores |
| Lorries 3-ton 134" Dump | Lorries 3-ton Troop Carrying Vehicle ϕ |
| Lorries 3-ton G.S. | Lorries 4-ton A.P.F. |
| Lorries 3-ton G.S. (W/Penthouse) | Lorries 4-ton Z.P.I. |
| Lorries 3-ton G.S. (Office) | Lorries 3-ton 6 wheel Machinery "A" |
| Lorries 3-ton G.S. (Medical) | Lorries 3-ton 6 wheel Machinery "B" |
| Lorries 3-ton G.S. (Stores) | Lorries 3-ton 6 wheel Machinery "F" |
| Tractors Breakdown Light | Lorries 3-ton 6 wheel Machinery "L" |

("B" VEHICLES)
APPROVED TYPES (Cont'd)

| | |
|--------------------------------------|---------------------------------------|
| Tractors Breakdown Medium | Lorries 3-ton 6 wheel Machinery "Z" |
| Tractors Breakdown Heavy | Lorries 3-ton 6 wheel Machinery CZ |
| Tractors Artillery Light | (Radio) |
| Tractors Artillery Medium | Lorries 3-ton 6 wheel Machinery RE |
| Tractors 3-ton for semi-Trailer | 7½ KW |
| Tractors 5-ton for semi-Trailer | Lorries 3-ton 6 wheel Stores |
| Tractors Tracked "D-8" | Lorries 3-ton 6 wheel X-Ray |
| Tractors Tracked "D-4" | Lorries 3-ton 6 wheel Bacteriological |
| Transporters 8-ton | Laboratory ∅ |
| Transporters 16-ton | Lorries 3-ton 6 wheel Petroleum |
| Transporters 20-ton | Laboratory ∅ |
| Transporters 40-ton | Lorries 3-ton 6 wheel Camera ∅ |
| Transporters Recovery 40-ton | Lorries 3-ton 6 wheel Processing ∅ |
| Trailers 10-cwt G.S. | Lorries 4-ton 6 wheel Machinery "M" |
| Trailers 15-cwt 2 wheel G.S. | Lorries 4-ton 6 wheel Machinery |
| Trailers 15-cwt 2 wheel Gas Welding | RE 25 KW |
| Trailers 15-cwt 2 wheel Water | Lorries 4-ton 6 wheel F.B.E. |
| Trailers 15-cwt 2 wheel Compressor | Lorries 4-ton 6 wheel S.B.G. |
| Trailers 15-cwt 2 wheel Pole | Lorries 4-ton 6 wheel Pontoon |
| Trailers 15-cwt 2 wheel Bolster | Lorries 4-ton 6 wheel G.S. |
| Trailers 15-cwt 2 wheel Sterilizer ∅ | Lorries 4-ton 6 wheel Crane |
| Trailers 15-cwt 2 wheel Generator | Lorries Command Vehicles ∅ |
| Wireless 2 K.W. | Lorries 10-ton 6 wheel Printing ∅ |
| Trailers 15-cwt 2 wheel Generator | Lorries 10-ton 6 wheel Photo- |
| 9 KW | mechanical |
| Trailers 15-cwt 2 wheel Workshop | Lorries 10-ton 6 wheel Breakdown ∅ |
| Servicing | Trailers 4 wheel Pigeon Loft ∅ |
| Trailers 2 wheel Generator 22 KW | Trailers 4 wheel Motor Boat |
| Trailers 7-ton 6 wheel Lt.Recovery | Trailers 4 wheel Machinery Grind & |
| Trailers A.P.F. | Brake |
| Trailers Z.P.I. | Trailers 4 wheel Machinery 60-ton |
| | Press |
| | Trailers 20-cwt G.S. |
| | Semi-trailers 6-ton G.S. |
| | Semi-Trailers 10-ton G.S. |
| | Semi-Trailers Bulk Petrol (...Calls) |
| | Semi-Trailers Laundry (Canadian) |
| | Trailers Laundry Sets (British) ∅ |

∅ Complete vehicle from War Office.
* Cdn chassis, body from War Office.

GROUP II.

ITEMS OF CONTINUING CANADIAN SUPPLY TO BRITISH ORDNANCE DEPOTS

(A) Vehicles & Associated Equipment and Stores

Nil

(B) Technical Stores

Ronson Lighters. No further requirements anticipated after delivery of present order.

Belts Linesman. Bell Telephone Type

Climbing Irons Klein type

Readers Map Electric

Wireless Set C.27

Wireless Set C.9 Mk.0 spares only

Wireless Set C.9 Mk.I and Mk. II

Wireless Set C.19 Mk.II spares only

Wireless Set C.19 Mk.III Vehicle Equipment

Station Sets as follows:

Spare

Carrier

Scout

Truck Ground and Training

Armoured O.P.

Recce

C43/19/34

19HP/19/34

Wireless Set C.33 spares only. No further requirement of sets after delivery of present order.

Wireless Set C.43

Wireless Set C.58 Mk.0 spares only

Wireless Set C.58 Mk.I -

Reception Set VRL (CR106). Possibility of adopting AR88

Reception Set R103 (Karadio)

Amplifiers C.19

Wavemeters TE.149 spares only. No further requirement of Wavemeters after delivery of present order.

Multi Airline Stores. Delivery of present order to be

completed with probable further requirement now under consideration.

(C) General Stores

Berets Knitted Khaki

Bootees Operating

Caps Mechanic

Boots Rubber High

Overalls Combination Black

Bonnets Irish

Caps Comforter

Buttons G.S.

Buttons Rifle Regiment

Badges Cap

Battledress Blouses

Battledress Trousers

Boots Ankle

GROUP II

(C) General Stores (Cont'd)

Boots Ankle C.A.C.
Boots Leather High
Shirts Woollen
Drawers Woollen
Socks
C.W.A.C. Clothing
Containers Light Respirators.

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