elevators of this country. In this day of aircraft carriers it is quite conceivable that enemy nations might raid this nation, supplying food as a neutral amongst belligerents. Our elevators and our food supplies might be raided, and apart from our essential coast defence our food supplies might be protected in the case of any hostilities.[58]

When the prime minister concluded the discussion on 19 February, he referred to the growing influence of airpower and to his previous and longstanding support of aviation, but kept the threat to Canada well in perspective – 'Relatively our danger is small.'[59] The government could not, however, ignore its responsibilities. These demanded a policy which would appeal to moderate opinion, convince outsiders of seriousness of purpose, and prepare for some future, and largely undefined, participation in collective action to secure peace. The prime minister's words gave hope to all shades of opinion. Isolationists could take heart from his apparent rejection of an expeditionary force,[60] while those who considered an overseas commitment to be inevitable could point to the address as a mandate for action and preparation. 'This speech I read and re-read,' one defence planner recalled; 'it seemed to me the first positive statement on defence policy made by a leader of a government since Confederation. As such I enthusiastically commended it to my friends.'[61] It was hesitant, it was partial, it was a mere beginning, but the rearmament programme sanctioned at the close of the parliamentary debate was probably the most which could be expected in the circumstances. The RCAF, in the process, had been given primary responsibility for Canada's direct defence.

As its responsibilities for the country's defence increased, it was natural that the RCAF began to question its status as a subordinate of the militia. It will be recalled that, whether by oversight or design, the air force's status was imprecisely defined at the time it was absorbed by the Department of National Defence in 1922. The RCAF did, however, exercise a certain autonomy in conducting its affairs, and it seemed to be generally assumed that the air force would become a separate military service 'when its expansion so warrants ...'[62]

In the meantime, a ramshackle administrative system had evolved to accommodate the RCAF. Except for special aeronautical stores supplied by its own technical, research, and supply branch, the RCAF obtained its services – pay, transport, medical, rations, and so on – through regular militia staff channels. Units were under the jurisdiction of regionally based militia districts. In 1932 the RCAF began appointing air staff officers to districts to advise the officer commanding on air matters, especially those pertaining to non-permanent units. On some topics the air staff officer dealt directly with district staffs; others he referred to AFHQ, which would take the question to the adjutant-general or quartermaster-general. Still other issues, such as discipline, lay in administrative limbo. Under the provisions of King's Regulations and Orders, district officers commanding had jurisdiction over RCAF officers and airmen in their districts, but RCAF crews based in one district might well operate in several others while on summer civil operations. It was cumbersome at best to determine where final responsibility lay. In 1935 a new quartermaster-general, Brigadier T.V. Anderson, was astonished to find that he was 'unable to find laid down anywhere

what duties the Q.M.G. should carry out in connection with the RCAF.'[63] When the chief of the general staff looked more closely he found that his own authority and that of the adjutant-general was equally cloudy, as 'the situation has never been defined ...'[64]

It became evident, moreover, that the RCAF's military operational requirements differed functionally from the militia's. As the RCAF member on the interservice Mobilization Committee pointed out, the RCAF's responsibilities to defend the coasts against surprise attack meant that, unlike the army, it must have fighting units in place well before any formal declaration of war.[65] In addition, the operational command of air force squadrons could hardly be left to militia districts organized solely for the peacetime administration of static units. On the east coast, for example, seaward air patrols overflew several militia jurisdictions. Clearly an operational headquarters would be needed which took account of the long-proclaimed air force premise that the air was indivisible. Noting the accumulation of differing army and air force needs, the senior air officer, Air Commodore G.M. Croil, proposed in 1935 a full-scale reordering of the existing command and administrative structure.[66]

After reviewing the inadequacies of the current organization, Croil could see two alternatives. The first was to build up all 'the branches of the Air Force Staff, i.e., the Air Staff, Personnel Staff, and Equipment Staff, with armament, photography and signal advisers and the requisite clerical staff in 10 Military Districts.' This, he thought, would be an inefficient use of scarce resources. Instead, he recommended the formation of four air defence areas, each with its own RCAF Headquarters. Decentralization, Croil concluded, would simplify the command and control of air force operations, facilitate local recruiting and mobilization, and take full account of the flexibility of air units. The militia would retain control over common services – medical, pay, engineering, and rations – and provide them on demand to RCAF units from the nearest district.[67] The result would be to give the RCAF co-equal service status with the militia and navy.

For his own unrecorded reasons, the chief of the general staff ignored Croil's recommendation, deciding instead to increase the air staffs of some military districts.[68] When Croil met Ian Mackenzie in 1935, however, the new defence minister told him that he intended 'to make all three services of equal status.'[69] The deputy minister, L.R. LaFlèche, was also sympathetic to the air force's claims, counselling Croil to bide his time and 'continue until change occurred progressively.'[70]

Croil's next opportunity came over the issue of RCAF representation on the Defence Council, which had been formed in 1922 to offer military advice to the government. The chief of the general staff and chief of the naval staff were members, and together with the adjutant-general and quartermaster-general, the director of the RCAF (from 1932 the senior air officer) was an associate member. In 1936 the militia staff proposed that the master-general of the ordnance also be made an associate member.[71] LaFlèche, however, returned the proposal with the suggestion that the senior air officer be elevated to the status of member. When the chief of the general staff demurred, the deputy minister sought the opinions

of the navy and air force. The chief of the naval staff was unequivocal: 'as a member of the Defence Council I am of the opinion that the SAO should be the member of that Council.'[72] Croil agreed. Because national defence was the direct concern of all three services, he replied, all must be equally represented in its planning, and 'This co-operation can only be achieved if the requirements and views of the three services receive just consideration. It is felt that each service should be free to express its views and none should be dominated by another. It is clear that unless the Air Force is given a seat on Defence Council, its requirements and views are not brought to the attention of the Minister, and therefore the Government, as clearly and convincingly as those of the other services. As a consequence, the possiblity of a true appreciation of defence requirements is jeopardized.'[73]

The Defence Council considered the matter at one of its rare meetings on 8 July 1936. The RCAF's claim touched a raw militia nerve. Major-General Ashton believed that the air force had no reason 'to develop an inferiority complex' and warned that separating the services would be expensive because 'The tendency of officers of the Air Service, as far as I am aware, is to give little consideration to the question of expenditures ...' He also objected that the change would disturb the seniority list, leaving 'the Adjutant General, Quartermaster General and Master General of the Ordnance, who are his seniors, in the junior position of Associate Members.' Ashton was overruled. The minister elevated the senior air officer from associate member to member within a week.[74] The change was an important symbolic step towards full service independence.

Croil was not content to leave the matter there. He continued to point out to the chief of the general staff that the RCAF needed to control more of its own internal affairs in order to implement its increasing responsibilities. 'The original intention,' he pointed out in 1937, 'in bringing the three Services together into one Department was to effect an economy in the provision of the common requirements. The authority ordering this concentration did not include or suggest any merging of the three Services into one homogeneous whole. That it was intended that each of the three services should retain its individuality and control its policy and administration is apparent. It is presumed that the intention was also that, inasfar as the common provision of the common requirements is concerned, these should when practicable be handled by the Service best equipped to handle the particular work for the other services. This procedure,' the senior air officer cautioned, 'was not intended to embrace all aspects of the "common requirements." For instance, there is no argument in favour of concentrating in the hands of one Service, matters which can be equally well carried out by the existing personnel of the other services. Only where a saving in staff is concerned should concentration be carried out.' Each service had its own concerns. 'Recommendations by the RCAF are purely Air Force in nature until they conflict with another Service,' Croil concluded, and care had to be taken to avoid treading on the prerogatives of others. The danger in limiting one service's growth and autonomy was that it would be unable to attain the 'adequate organization in peace' that would be required in war.[75]

Ashton was too busy to respond.[76] He was preparing to leave for London, in

the company of Croil and the chief of the naval staff, as part of the government's delegation to the forthcoming Imperial Conference. Fortuitously, Croil found further leverage in the latest of the general staff's many appreciations of defence needs. Seeing the need for an interdepartmental system for co-ordinating defence planning, Colonel H.D.G. Crerar, the director of military operations and planning, asked for Croil's support.[77] Responding favourably, Croil noted one reservation, a fundamental one. 'The memorandum cannot be supported by me unless it includes a recommendation for the establishment of the RCAF as a separate service along the lines previously discussed. My reason for this stand is that unless the matter is fully dealt with in conjunction with your proposals for re-organization of the Department, it may be difficult to introduce this important point at a later date.'[78] The time for full service independence had come. 'The present organization of the Department of National Defence was ordered by the Minister of the Department at the time of the inclusion of the RCAF when that force was considered to be lacking in the necessary experience to enable it to direct its policies efficiently. Some twelve years have passed since that time and the RCAF now possesses an adequate staff of fully trained officers, well qualified to administer and direct its policy. It is considered desirable therefore that the organization of the Department be now amended so that the fighting services will be on an equal footing; the respective head of each service to be directly responsible to the Minister for the efficiency, administration and control of his service.'[79] Whether persuaded or worn down by attrition, Ashton now agreed. In London the three service chiefs recommended to the minister that 'the respective heads of each Service should each be directly responsible to the minister for the efficiency, administration and control of his particular Service.'[80]

The wheels of change turned slowly, and there was no immediate response to the recommendation. In the fall of 1937 Croil revived his campaign to decentralize control through regional air commands. Reconnaissance of the west coast to fix new base sites had been underway for the past year and the RCAF (unlike the army and navy) lacked any local co-ordinating authority to provide direction. Nor was there an air force headquarters to command permanent and non-permanent units in British Columbia. The non-permanent 111 (Coast Artillery Co-operation) Squadron was under the jurisdiction of the militia district officer commanding for all matters; the permanent No 4 (General Reconnaissance) was responsible to AFHQ for its own training, employment, and technical maintenance, while coming under the district officer commanding only for administration. 'There exists, therefore,' Croil concluded ruefully, 'the unique situation of two units of the same service, intended for the defence of the coast and located in the same place, administered and controlled under two entirely different systems, which is clearly illogical and not conducive to efficiency or economy.'[81]

The deputy minister agreed, as did the minister. They approved a new air force headquarters for the Pacific coast in principle. The deputy minister then presided over several discussions 'in order to find a solution to the points of difference in the proposal to establish an RCAF Western Air Command.'[82] Differences centred on how best to split administrative and command jurisdic-

tions, and whether the officers commanding the military districts and air force commands should be of equal rank. A measure of agreement was finally reached on 15 March 1938, and Western Air Command was formally authorized. Group Captain G.O. Johnson, the commanding officer of RCAF Station Vancouver, assumed command of Western Air Command Headquarters as of 15 April, and took full charge of all air force units on the Pacific coast on 1 August.[83]

The formation of Western Air Command was a major step towards rationalizing the RCAF's command system. The next occurred in September 1938, when the Defence Council again discussed problems of interservice co-operation. The chief of the general staff told the meeting 'that he considered that an immediate decision should be reached defining his responsibilities' for the RCAF. The deputy minister then reminded the meeting, chaired by the minister, of the Joint Staff Committee's recommendation of the year before, and that 'He considered the time had come when the Air Service should be placed in a similar position to the Naval Service.' The minister provided no clear direction, simply informing the service chiefs 'he was prepared to see [them] at any time.' The minutes of the meeting, however, recorded that 'It was presumed that the steps recommended ... will be carried out immediately.'[84]

Within weeks, the minister authorized two additional air commands, Eastern Air Command at Halifax and Air Training Command at Toronto. The former, whose formation was accelerated by the Munich crisis, was to prepare detailed plans for the defence of the Atlantic coast.[85] The latter was 'to permit decentralization from National Defence Headquarters of the multiplicity of detail pertaining to all phases of training at Air Force Training Centres,' because 'the staff at National Defence Headquarters are called upon to deal not only with the major issues of training but to supervise and record so much detail that many important matters cannot be given the attention warranted.'[86] In November the process was completed by Air Force General Order No 2, which provided that 'The control and administration of the Royal Canadian Air Force will be exercised and carried out by the Senior Air Officer who will, in this respect, be directly responsible to the Minister of National Defence.'[87] A third Air Force General Order authorized the Air Council, composed of the senior air officer as president, the air staff officer, the air personnel staff officer, and the chief aeronautical engineer as members. The purpose of the council, a variation on the RAF model, was to afford each of the heads of divisions the opportunity of advising on air force policy, and provide a forum for the exchange of views between the staff branches.[88]

As he considered on the air force's newly expanded responsibilities and unaccustomed affluence, the chief of the air staff, his new title reflecting the RCAF's elevated status, must have had mixed reactions.[89] No doubt Croil was pleased with the public acknowledgment of the RCAF's growing importance in Canada's defence establishment, but the task facing his small command was staggering. Only recently had the RCAF been required to think seriously and specifically about its military task; now it had to move quickly beyond theory to implement plans for the air defence of the country. Resources were few. The 150 officers and fewer than 1000 airmen (with half those numbers again in the

non-permanent air force) were spread woefully thin. The RCAF's thirty-one obsolete military aircraft hardly presented a credible deterrent, even to the most faint-hearted enemy.

The 1937-8 estimates had enabled the air force to plan for only six permanent squadrons, each with two flights of military aircraft, and one more with civil machines. Funding levels permitted manning to just 70 per cent of peacetime establishments. Squadrons would require an estimated two years' training before they could be considered operationally effective. Even this assessment was predicated on the availability of aircraft and equipment, and not 'a single item of Air Force equipment required for defence purposes is manufactured in Canada from materials available in the country.'[90] A reliable logistics system remained a distant, elusive goal and, Croil pointed out, aircraft were not sustained in flight by thin air alone: 'There is a large and varied list of equipment which represents a considerable capital investment required before the aircraft can be maintained and operated efficiently. These include, aircraft spares; rations; clothing and necessities; motor transport; motor transport gasoline and oil; marine craft; miscellaneous stores including hand tools; machine tools; work shop equipment; electrical equipment; parachutes; armament stores; bombs and ammunition; barrack stores; wireless telegraphy equipment; photographic equipment; aerial gasoline and oil; overhaul equipment (engines and aeroplanes); printing and stationery, etc.'[91] Once the foundation had been laid, the task of putting operational squadrons in the field was immense:

> Briefly, [Croil wrote] this is the situation at present. Although every endeavour is being made to build up the Air Force as quickly as possible, funds are insufficient to bring even this small force up to full peacetime establishment. In actual fact, if annual estimates for the Permanent Force remain on the same basis for succeeding years as for this year, by the end of 1941 it will be possible to completely equip and man to full peace strength only five Permanent Force Squadrons ... In addition five squadrons will be partially equipped. During this period it will be possible to complete the organization of 12 Non-Permanent Squadrons, to equip them with a nucleus of training aircraft, and to partially train their personnel. The Joint Staff Committee, in their memorandum of Sept 5th, 1936, consider that a total of 23 Service Squadrons (11 Permanent and 12 Non-Permanent) represent the minimum number required for the Defence of Canada. The task of organizing and training this force will take considerable time and effort. Unless future estimates are materially increased, and immediate steps taken for the manufacture of Air Force equipment, the possibility of completing the manning and equipment of a force of this size cannot be accomplished.[92]

Money was not the only or even the most vital part of the problem. The RCAF, in its decrepit state, could only absorb so much without clogging the system. A cautious man, Croil chose to be deliberate rather than embark on a crash acquisition programme with a high probability of waste. In fact, Croil pointed out in 1938, 'it is not possible to take full advantage of a sudden and relatively large increase in appropriations. This was demonstrated in 1937–38, when the appropriation was doubled. The Headquarters staff was inadequate to meet the

additional strain, with the result that orders for much of the equipment which might have been delivered within that year, could not be placed in time to permit of this ... For this reason it is desirable that where time permits, increases should not be too sudden nor, in comparison to the previous year, too large. It is, of course, realized that in an emergency the disadvantages of rapid expansion must be accepted.' There was little point, therefore, in recruiting large numbers before instructors were available to train them. Nor was the air staff eager to take risks in ordering experimental aircraft whose potential was unclear. Rather, Croil wrote, 'I have consistently resisted anything in the nature of experimental types. We cannot afford to embark upon the manufacture of an aircraft which, when completed, will turn out a failure, therefore we must wait until the Air Ministry have tested the first of the type we desire, in order to be sure that type when completed will be satisfactory.'[93]

The immediate priority was to equip nine permanent squadrons assigned to coast defence with 'modern first-line aircraft immediately available and ready for service.' For a time two other permanent units would have to make do with older types or advanced trainers, as would the non-permanent squadrons. Up to that time fighting units had been formed piecemeal as aircraft and men became available after civil operations were dropped. In 1933 No 4 (Flying Boat) Squadron had been activated from several west coast detachments, and the following year 5 (FB) Squadron was organized in Halifax from crews who had been flying RCMP preventive patrols. In 1935 the Test and General Purpose Flights at Ottawa provided the nucleus for 7 (General Purpose) Squadron, while at Winnipeg 8 (GP) Squadron absorbed detachments located in the Prairie region. That same year the Atlas and Siskin flights became Nos 2 (Army Co-operation) and 1 (Fighter) squadrons, respectively, at Trenton, and authorization was given to form Nos 3 (Bomber) and 6 (Torpedo-Bomber) squadrons. The organization of the first three non-permanent units – No 10 in Toronto, No 11 in Vancouver, and No 12 in Winnipeg – had been begun in 1933. Two years later, Nos 15 and 18 in Montreal, were approved. By 1939 all twelve had been authorized along with three wing headquarters.

Obtaining aircraft for the operational squadrons made the RCAF's earlier procurement difficulties seem simple by comparison. Familiar problems – insufficent funding and the lengthy lead time between ordering and delivery – were more pronounced, and rapid technological change complicated selection. Proven types were already obsolescent by the time they were generally available and choosing experimental machines was risky. Establishing secure sources of supply was another major difficulty. Canada would probably be able to acquire American aircraft in wartime if the United States was an ally, but if not, neutrality legislation would prohibit their export. Moreover, information about American designs was kept classified until the aircraft went into production, and this limited the RCAF 'to aircraft which are already at least a year old, and further, are possibly not the most desirable from military point of view.'[94] Britain was the other potential source, but in wartime the RAF would be a competitor for limited resources. 'There is only one solution to this problem and that is the manufacture of Air Force Equipment in Canada,' Croil concluded.[95]

Unfortunately, the Depression had ruined the promising beginnings of an indigenous aircraft industry. Little choice remained other than to buy British designed and tested aircraft while trying to arrange their construction in Canada under contract. The established policy of standardization wherever possible to British types also pushed the RCAF strongly in this direction. Croil informed the minister:

> The Royal Canadian Air Force is organized on Royal Air Force practice, and therefore Royal Air Force equipment fits into the Canadian scheme better then American equipment, e.g., the establishment of a squadron of the Royal Air Force is designed to meet the requirements of the type of equipment used. We use the same establishment, and to get the best results, should use the same equipment. If we change the equipment we must change the establishment, which will result in a certain amount of experimentation until satisfaction is achieved. Similarly, if we change the type of aircraft and go in for the American product, it means that we must also change our supply of bombs, guns, and instruments of all kinds, for the American aircraft are designed to take American accessories of this kind. This is not an insuperable job and could be incorporated in the manufacture if we are building this type of aircraft in Canada. I feel that it is necessary for us to continue to use British accessories, for we have no other supply and these can be purchased through the Royal Air Force from markets which would otherwise be closed to us, and at the same time, we use the Royal Air Force as a proving ground.[96]

In 1935 the RCAF had ordered six Westland Wapiti bombers and four Blackburn Sharks from Great Britain. Neither was impressive. The Wapiti was a modified First World War DH9A with open cockpits for the pilot and an air gunner/bomb aimer. 'From the pilot's point of view,' C.R. Dunlap recalled, 'the aircraft was a beast. It lumbered off the ground and struggled along with very unimpressive performance ... it glided like a brick.' Little wonder, then, that when Wing Commander Breadner asked Dunlap, then on exchange duty with the RAF, his opinion of the machine, he received a blunt reply: 'The Wapiti is without doubt the worst apology for an aircraft that it has ever been my misfortune to fly.' Having recently obtained more Wapitis, Breadner was understandably miffed. 'Dunlap,' he said, 'I am sorry to hear you talking like that about an aircraft ... currently in use in the RAF. You are enjoying the privilege of being here in England, benefitting from everything the RAF has to offer. Therefore, I do not think you have any right to be so critical of the aircraft you are privileged to fly.' It was only after he realized Breadner had purchased the Wapitis at a bargain price because Canada was not prepared 'to spend any money for anything better' that Dunlap understood why his superior had been so defensive.[97] In the event, Canadian Wapitis were used as bomber trainers, and 3 (B) Squadron completed its initial air firing and bombing practice with them in the summer of 1937.

The Sharks destined to equip 6 (TB) Squadron for a strike role were little better. An open cockpit, two- or three-seater, the Shark could operate as a landplane or seaplane on reconnaissance, bomb, or torpedo tasks. Powered with

one 770-hp Armstrong-Siddeley Tiger or an 840-hp Bristol Pegasus IX engine, the Shark had a maximum speed of about 150 mph and a cruising range of 500 miles. It could carry 1500 pounds of either bombs or torpedos as well as a fixed forward-firing machine-gun and another movable one in the rear. A contract for additional Sharks was subsequently arranged with Boeing Aircraft of Canada at Vancouver. Enough were eventually ordered for two squadrons.[98]

In 1936 the first five Supermarine Stranraers had been ordered from Canadian Vickers Ltd. The Stranraer, a new flying boat, was meant to fill the need for long-range coastal reconnaissance. Twin-engined, it carried a crew of six or seven with a cruising range of about 1000 miles, which gave it an effective operating radius of about 300 miles. The Stranraer had gun positions amidship and at the rear, as well as room for sleeping quarters. It could also be adapted to carry a torpedo, and was powered by two 875/1000-hp Bristol Pegasus engines. Its endurance was almost ten hours, with cruising speed of 105 mph. The first went into service with 5 (BR) Squadron in late 1938.[99]

When the major increase in the 1937–8 estimates permitted more lavish expenditure on new aircraft, seven more Stranraers were ordered (forty were eventually produced) along with an additional eighteen Wapitis, thirteen Sharks, and two new types, the Bristol Bolingbroke and the Westland Lysander. The Bolingbroke, a Canadian version of the Blenheim IV light bomber, went to 7 and 8 (GP) Squadrons for general reconnaissance tasks. Powered by two Bristol Mercury engines, the Bolingbroke had a cruising speed of 225 mph, a range of 1900 miles, and carried a three- or four-man crew. When fully loaded with its complement of weapons, it had an effective operating radius of about 350 miles. It was constructed in Canada by Fairchild Aircraft of Canada Ltd. The Lysander was a two-seater monoplane, purchased to replace the Atlas on army co-operation duties, especially coast artillery spotting. It was built under contract by the National Steel Car Company in Malton, Ont. It had a single Bristol Mercury XII engine, two fixed forward-firing guns in the wheel fairings, a movable gun in the rear cockpit, and a speed of just over 200 mph.[100]

Fighters had a lower priority than patrol, bombing, or army co-operation aircraft. As Croil pointed out to the minister, the RCAF's need for fighters differed from that of the RAF. Geography left Britain vulnerable to sustained air attack; the RAF needed fighters with rapid climb, fast speed, and high-ceiling capabilities. Canadian conditions, by contrast, required a twin-engined, two-seater with sufficient range and endurance to enable it to overfly vast undeveloped territory with some degree of safety. Such aircraft, however, were not readily available, and in 1938 a few Hawker Hurricanes were ordered instead, the first of which went into service in the spring of 1939.[101]

The RCAF's rearmament programme was not expected to be fully effective – that is, sufficient to implement the Joint Staff Committee's 'Plan for the Defence of Canada' – until the end of 1941. Even then, of the 325 first-line and 202 modern training aircraft considered the 'barest minimum,' only 99 and 127, respectively, would be operational if the current procurement schedule was followed. Moreover, as Croil informed the minister in mid-1938, 'the provision of Service Aircraft is progressing so slowly that some of the types selected will

be obsolescent or obsolete before deliveries are made in sufficient numbers to complete the arming of all units.'[102]

During the Munich crisis of September 1938 the inadequacy of Canada's air defences was made all too apparent. Preparations for defending the Atlantic coast in the German war which seemed imminent were as yet incomplete. The RCAF and RCN had quickly to co-ordinate an *ad hoc* emergency plan. It was just as well that it was not tested. The coast artillery co-operation squadron on the east coast had not yet been formed and 2 (AC) Squadron had to shepherd its decrepit Atlases to Halifax to fill the gap.[103] With them went all the other aircraft the RCAF was able to muster: a total of thirty-nine, among them six Sharks, the only remotely modern military types. Thirteen others were obsolete service machines, the rest were civil aeroplanes. Only twelve of the thirty-nine could carry effective bomb loads.[104] These numbers included all available aircraft other than primary trainers and five obsolete machines left on the Pacific coast.

The crisis was almost enough, however, to provide the RCAF with new procurement channels. In mid-September enquiries were made through the Canadian minister in Washington about the availability of American aircraft for quick purchase. On 28 September, as the British prime minister, Neville Chamberlain, met Hitler, Croil obtained authority to create a board of officers to buy as many aircraft from the United States as $5 million would purchase. Air Commodore E.W. Stedman led the group to Washington, where meetings took place with War Department officials and industry representatives over several days. Because of the need for rapid delivery – specified as three months – only aircraft already on contract to the United States Army Air Corps would meet the RCAF's needs. Except for those still classified types not yet released for export sales, the Americans gave the RCAF free access to their own orders. The greatest need was for fifteen reconnaissance aircraft and eighteen bombers with ranges of 1000 miles. The secondary requirement was for fifteen fighters.[105] The most suitable available aircraft were the Douglas 18A bomber, the North American 25 observation machine, and the Seversky P35 fighter.[106]

In the event, the entire exercise went for naught. Stedman's blanket authority was removed when he was told he must first refer his recommendations to Ottawa except if 'it is vitally important to complete the purchase immediately, and no other course seems open to you.'[107] Then, as relief at peaceful settlement of the Munich affair replaced the urgency and panic of late September, the government reverted to its more cautious spending ways. Parliament would now have to be asked to approve any extraordinary expenditures. The Governor General's Warrant, by which the Cabinet originally had granted spending authority to the purchasing mission, was cancelled. Apologies and thanks were extended to the Americans, who had co-operated beyond the bounds of any necessity, and Stedman and his assistants returned home with neither aircraft nor contracts.

Three months later, at the beginning of 1939, the minister asked for a briefing on the RCAF's aircraft. He could hardly have been encouraged by the air staff's response. There were two Stranraers and two Fairchilds in the Maritime provinces; five Sharks and eight other aircraft defended the west coast.

Reinforcement prospects were no more promising. Within one week six Atlases might be found, in two weeks seven Wapitis and three Fairchilds, and in eight weeks two additional Stranraers. In his report to the minister Breadner noted pointedly that fifteen observation and eighteen bomber aircraft could be obtained by July if an order were placed immediately in the United States.[108]

While the attempts to obtain fighting aircraft continued, the British Air Ministry was an interested onlooker. Its concern with the potential productive capacity of the as yet small Canadian aircraft industry developed into a major acquisition scheme which provided a healthy stimulus to the industry. Following discussions at the 1937 Imperial Conference, the Air Ministry had dispatched a delegation to Ottawa in May 1938 for talks on both the training of aircrew and the production in Canada of aircraft for the RAF. The British objectives, in the words of the air minister, were both practical and political: 'The scheme contemplated was one for the creation of a potential capable of providing aircraft in war rather than for the early production of aircraft in peace. Such a scheme, it was felt, would give us a valuable resource in war beyond the range of enemy aircraft, would operate in peace to diminish the tendency in Canada to detachment from concern with imperial defence; and would immediately impress opinion on the continent.'[109] The British opened negotiations with representatives of ten industrial firms, reaching an agreement for the companies to form a central contracting company which would assemble British-designed aircraft for the Air Ministry. In the event, six firms combined to form the Canadian Associated Aircraft Ltd, which assembled airframes from parts and components supplied by the six. In November, immediately after the RCAF's abortive Washington purchasing mission, the Air Ministry let a contract for the assembly of eighty Hampden bombers with an indication of a further order for one hundred more. Coincidently, the Air Ministry ordered forty Hurricanes from the Canadian Car and Foundry Company of Fort William, Ont.[110] None of the aircraft was ready before war broke out, but these initial orders led to much larger ones later.

The RCAF's deliberate acquisition policy was not without its critics. Non-permanent squadrons were unhappy with their lack of useful equipment, and some of their supporters were influential in business and politics. In the fall of 1938 the minister appointed several of them – W.A. Bishop, R.H. Mulock, A.D. Bell-Irving, H.J. Burden, F.S. McGill – as an Honorary Air Advisory Committee. Its ostensible purpose was to provide the government with an independent source of advice on air force matters. Bell-Irving worried that they were 'expected to be agreeable to the Government rather than helpfully constructive,' and he was unable to 'get away from the thought that the Air Committee are (or is) in danger of being an insignificant preparation of optical hygiene.'[111] Nevertheless, they found much about the RCAF to criticize – questionable policy decisions, inadequate training standards, deplorable staff work, wrong-headed promotions, weak leadership, and endless delays in obtaining new aircraft.[112]

It is impossible to be categorical about the validity of their charges. Non-permanent units have often felt resentful of their second-class status in comparison with regulars. It is true that many prewar policies were quickly

outdated, as were most of the RCAF's aircraft. The procurement programme may well have been overly cautious. The decision not to leap a design generation, by consciously avoiding experimental aircraft in a period of technological innovation, condemned the air force to a succession of obsolescent, if not obsolete, types before they were flown operationally. Given the imperfect information available to the RCAF staff at the time, however, as well as the many restrictions imposed on them by circumstances, their policies had an internal logic. The acquisition programme was unimaginative and the product of many compromises, with which few could be entirely content, but it was based on reasonable and defensible premises.

While aircraft were gradually acquired by the RCAF, the cycle of individual and unit training picked up, but with difficulty. Establishments remained emaciated and equipment non-existent or obsolete. One way partially to overcome the problem was to send individuals to the RAF for specialist courses and attachments, a practice which was expanded in the immediate years before the war. It was a valuable exercise, as Air Marshal C.R. Slemon has commented: 'I would say that by 1936 we still had a very low order of military cabability. But from then on we sent more people to the United Kingdom who came back and were instructors and so on, so that by the time the war broke we had a fairly good idea of what was required, even if we didn't have the equipment to carry it out.'[113]

The RCAF had begun sending selected officers to the United Kingdom for specialist training in the early 1920s. Usually, eight to ten were sent annually to the RAF Staff College and schools specializing in aeronautical engineering, air pilotage and navigation, army co-operation, flying instruction, armament, photography, wireless, and explosives. From 1935 each RCAF general list officer, after four years' flying training, chose to specialize in engineering, armament, photography, signals, or navigation. A specialties register was prepared and subsequent course selection and postings were adjusted accordingly.[114] Successful graduates supplied an ever larger cadre of staff-trained officers and specialist instructors for similar RCAF courses.[115] By 1937 the following numbers had been trained (the figures in brackets indicate those trained in Canada): flying instructors – 66 (57); armament – 34 (31); army co-operation – 84 (77); instrument flying – 81 (79); explosives – 14 (13); signals – 10 (8); navigation – 29 (23); seaplane – 74 (73); photography – 36 (36); engineering – 11 (10). In addition, two senior officers had completed, and one more was attending, the course at the Imperial Defence College, and twenty-two others the RAF Staff College. RCAF airmen were attending courses in Britain on automatic controls, armament, instrument repair, and other technical subjects.[116]

As well as specialty training, the RAF and RCAF exchange officer postings afforded Canadian officers an opportunity to gain valuable experience in semi-operational conditions with relatively modern equipment. Squadron Leader F.A. Sampson, for example, was sent on exchange in 1937 to 209 (GR) Squadron based at Felixstowe. After a number of coastal defence exercises, his unit was sent to the Mediterranean, first to Malta, and then to Arzew in Algeria. From Arzew, Sampson's squadron flew anti-submarine patrols to protect

shipping in the Mediterranean during the Spanish Civil War. The Short Singapore flying boats of Sampson's squadron were armed with three Lewis machine-guns, two 112-pound bombs, and two 250 pounders. The unit flew three daily patrols, each of eight hours, to locate submarines in the area. The crews could attack if requested by ships under fire, or if submarines were clearly ignoring conventions requiring them to look after the safety of crews and passengers of sunk vessels.[117] When it returned to Coastal Command, Sampson's squadron was re-equipped with Short Sunderland flying boats before taking part in two major air-defence schemes with the Home Fleet. Sampson was able to use this considerable patrolling experience on returning to the RCAF when he was given command of 5 (Bomber-Reconnaissance) Squadron in Dartmouth. Later he was on staff at Eastern Air Command before being posted to command a flying training school and then, during the war, a station of No 6 (RCAF) Group, Bomber Command, in the United Kingdom.[118]

Flight Lieutenant A.A. Lewis, who will be recalled as a participant in the Hudson Strait expedition of 1927–8, went to Britain in 1935 for two years, the first with 13 (AC) Squadron, the second with 7 (B) Squadron. Although he liked 13 Squadron's Hawker Audax aircraft, Lewis was unimpressed with the 'very elementary' training in army co-operation techniques which had not progressed much beyond First World War practice. It was also his 'impression gained during army manoeuvres ... that the higher commanders either did not know how to use the air force or were jealous of its capabilities and would not use it to its best advantages.' Lewis concluded that the average young officer posted to an operational squadron from the RAF School was not as well trained as his counterpart passing out from the RCAF's Army Co-operation School at Trenton.[119]

Lewis's second year was more productive. His bomber squadron was first equipped with Handley Page Heyfords, and then obtained the latest Armstrong Whitworth Whitleys which could carry two tons of bombs. Lewis was able to log considerable day and night cross-country flying as well as bombing practice using both manual and automatic-pilot procedures, all of which helped greatly on his return when he was given command of the RCAF's 3 (B) Squadron. From his exchange experience Lewis had become convinced that 'the supreme test of a bombing squadron is its ability to reach an objective in any kind of weather.' Thus, with No 3, he gave highest training priority to long-range navigation and night flying.[120]

Not all exchanges were fruitful. Air Commodore Croil complained in late 1937 that Flight Lieutenant R.C. Gordon was being misused in flying transportation flights for RAF officers attending air navigation courses. Croil asked his liaison officer in London to have the Air Ministry send Gordon to a squadron 'actively engaged on service training,' so that he would be better qualified to train RCAF officers on his return.[121]

More serious was the problem of training with obsolete equipment and techniques. With few exceptions, until 1939 the RAF trained on a generation of fighting aircraft whose origins lay in the First World War. The technological revolution brought about by mass-produced Hurricanes, Spitfires, Typhoons,

Mosquitoes, Lancasters, and the other powerful, fast, and manoeuvrable machines, as well as the tactics to deploy them effectively, awaited rapid wartime evolution. Consequently, much of the training which RCAF officers received in Britain was soon outdated. One example concerns army co-operation machines. The operational model of army co-operation squadrons, derived from 1914–18, was refined over the interwar years, and aircraft were made ever more sophisticated for the multi-purpose role they were expected to perform. The ultimate machine for the task, the Westland Lysander, was 'built, unfortunately, for the wrong sort of battle.'[122] As it became more powerful and complex it was less immediately useful for its primary role of artillery observation. The Lysander needed relatively large landing fields, which kept it back from the front lines, and while it had a slow enough stalling speed for observation flying, this was achieved by adding external encumbrances which restricted its manoeuvrability. It was also vulnerable, neither slow and light enough to avoid enemy fighters nor sufficiently fast to outrun them. 'Like the White Knight in Alice in Wonderland, it carried around the wherewithal to attempt practically any of the innumerable tasks which an army might at short notice require of it,' but it was less useful for artillery spotting.[123] In the Second World War the army co-operation role was split; close ground support was provided by fast, high-performance aircraft, while artillery observation was taken over by gunners flying slow, simple, Austers. Much of the immediate utility of interwar training in army co-operation was lost.[124]

Flight Lieutenant E.A. McNab had a frustrating experience in learning tactics almost immediately made redundant by technological advance. When McNab was posted in 1937 to 46 (F) Squadron in Great Britain he began flying a new (to the RCAF) machine, the Gloster Gauntlet II. He learned about section and flight tactical-fighter interception with radio ground control, and was pleased when the unit went to armament camp because he 'had never fired a gun in the air before.' Then in the summer of 1938 McNab's squadron was told it would soon be receiving new Hurricanes. The unit continued training with its Gauntlets, but there was no point in his reporting further on this training because the Hurricane's speed, armament, and different maintenance schedules so radically changed procedures that 'anything one might have written would have been obsolete by two or three years.'[125] In August 1940 McNab became the first RCAF pilot credited with downing an enemy aircraft in the Second World War.

When they returned from their overseas courses and exchanges the officers and airmen were slotted into appointments in an expanding staff and training structure. The RCAF was plagued, however, with severe aircraft and equipment shortages which seriously limited all phases of training except for the most basic flying. The number of flying training hours increased dramatically in these years – more than four-fold between 1931 and 1938 – but most flying was pure routine. In 1938, for instance, only 1700 hours were spent on combined operations training, compared to 22,500 hours on such activities as test, transportation, liaison, unit training, and all other types of routine flying. By then almost all individual training was carried out at Trenton where there were also schools for flying instruction, wireless and other technical trades, army co-operation, air

navigation, seaplane conversion, and air armament. Courses were run concurrently throughout the year. The flying training school was capable of handling from eighty to one hundred pupils per course, the technical training school about 120 airmen, the wireless school about seventy. The RCAF's only other training establishment was the old station located at Camp Borden. Here, at No 2 Technical Training School, airmen and officers were instructed in a variety of technical trades.[126]

Camp Borden became much more active in 1939 when the system of flying training was completely reorganized to conform to RAF practice. Pilot training was divided into three sixteen-week stages for elementary, intermediate, and advanced training. At the end of the year the graduate would have had flight as well as individual training. The elementary stage was given over to eight civilian flying schools at Halifax, Montreal, Toronto, Hamilton, Winnipeg, Regina, Calgary, and Vancouver. Each was to conduct three courses a year for thirty-two students. From there pupils went on to Borden, and then to Trenton for the final phase. The objective of the revamped programme was to produce 125 trained pilots each year. As part of the programme, a refresher flying instructors' course for club teachers was held at Borden in April. The first elementary school trainees began their course in June 1939; with the threat of war they were moved prematurely to Borden in August. In conjunction with the new scheme, the RCAF began granting most of their commissions on a short service rather than permanent basis.[127]

Service training, such as it was, was carried out by individual squadrons in their bases across the country. The lack of modern aircraft and a limited personnel establishment meant that very little realistic operational training was possible. Service, or unit, training was conducted on the RAF model, and RCAF Headquarters prepared a training syllabus for each unit for the training year. The year was broken into several periods, incorporating phases for individual, flight, and unit training, and exercises with militia or naval units. The training cycle was flexible enough to allow for individual squadron needs. There were common subjects which all squadrons had to master; for example, day and night flying, air pilotage, bombing, reconnaissance and report writing, photo operations, air fighting tactics, ground and air gunnery procedures, and signals. Theory was covered during individual training periods, as well as by specialist courses, and practical training was done in unit training. In addition, squadrons had their own specific subjects. Army co-operation squadrons emphasized ground tactics, liaison with ground units, and other combined procedures.[128] Flying-boat squadrons practised patrolling and prolonged reconnaissance, convoy protection, communications with ships, and recognition of service vessels. Torpedo squadrons had to be proficient in ship recognition and the mechanics of torpedoing as well as the usual subjects.[129]

It is impossible to relate syllabi to the actual quality of training. Units inevitably differed from one another in the type and intensity of their instruction. Moreover, the process of forming squadrons was slow. In 1937 No 1 (F) Squadron had three or four Siskins and could undertake only limited exercises. In that same year 3 (B) Squadron received its first Wapiti aircraft and was just

able to begin its service training. It completed its initial air firing and bombing practices that summer. No 4 (FB) Squadron in Vancouver conducted some coastal reconnaissance and anti-aircraft flying. In Halifax 5 (FB) Squadron began its service training early in 1937, having been relieved of its RCMP preventive patrols. No 6 (TB) Squadron obtained its Shark aircraft in 1937, but too late to begin service training. The most active unit was 2 (AC) Squadron. It continued its usual practice of sending detachments to militia training camps for co-operative exercises, and also completed gunnery and bombing practice. Nos 7 and 8 (GP) Squadrons were unable to begin service training operations because they were kept on aerial photo and transportation operations.[130]

In 1938, the final full year before war, the pattern remained much as it had been. Nos 7 and 8 (GP) Squadrons were kept on civil operations, the former on test and transportation flights in Ottawa, the latter with five photographic detachments in the field from Halifax to Vancouver. No 7 Squadron had only three of its eleven officers and had thirteen airman vacancies. The squadron's commander suggested in his annual report that the unit's lack of a clearly defined role on mobilization was causing confusion and affecting morale. The squadron had not yet been given an armament establishment, nor had it been told whether it would operate on land, water, or both.[131] No 8 was still equipped with Bellanca Pacemaker, Northrop Delta, and Noorduyn Norseman aircraft and was employed exclusively on non-military duties.[132] No 3 (B) Squadron moved from Ottawa to Calgary in October and was able to begin training, initially with four Wapiti aircraft and then with four more. The slow, obsolescent biplanes were armed, but only four had wireless. In the training season the machines logged more than 1000 hours and Squadron Leader Lewis was pleased with the standard of formation and night flying. Before flying out to its new Calgary base the squadron participated in army exercises at Camp Borden, flying simulated low-bombing and gas attacks as part of the designated enemy force. It was also able to practise bombing with the camera obscura.[133]

No 2 (AC) Squadron was again the busiest unit, forming detachments to exercise with militia units throughout the country.[134] Its training cycle provided for service training through the fall-winter-spring months and then the squadron participated in various summer camps. Like other units, it was beset with problems of old aircraft and unfilled establishments. It had seven Atlas aircraft serviceable throughout most of 1938, and during the summer sent detachments to Shilo, Petawawa, and St Catharines. In August the squadron joined 3 (B) Squadron at Camp Borden to provide air support for the militia concentration. Two Atlas aircraft crashed during the summer, one a complete write-off. In October No 2 flew to Halifax where it practised coast artillery observation with militia units in the region. On its return, the squadron began individual ground and air training, concentrating on forced landings, message pickups, camera gunnery, night flying (especially for the three new pilots in the squadron), signals, photography, and air-frame and engine mechanics. Detachments also flew tactical demonstration flights for the Army Co-operation School at Trenton. In January and February 1939 the squadron concentrated on two- and three-aircraft formation and night flying. In the spring the commander

complained that his schedule was being hampered by the lack of key officers and airmen, as well as by the daily drill parades which were being conducted to prepare for the 1939 visit of King George VI. Nevertheless, service training continued: air firing, bombing, navigation training, air drills, formation flying, and camera gun practice (including practice with towed targets). The squadron also assisted non-permanent squadrons during their summer camps. In July a detachment moved to Petawawa where it conducted eleven artillery observation shoots with sixty-pounder and 4.5-inch howitzers, and flew tactical and photo missions for army units.[135]

No 1 (F) Squadron had other problems. At the end of August 1938 the squadron, under command of Squadron Leader E.G. Fullerton, moved by rail from Trenton to Calgary, taking with it three of the six Siskins remaining in service. The squadron trained ineffectually with the worn-out machines until June 1939, when they were finally sent into storage. Meanwhile, Fullerton proceeded to Vancouver to accept the first of the Hawker Hurricanes delivered there for the RCAF from the United Kingdom. Check-outs on the Hurricanes were interrupted when the first was written-off after colliding with another aircraft on the ground.[136] Not until June 1939 was the first flight of Hurricanes delivered to its home base at Calgary. En route the squadron lost another machine when its pilot, Flying Officer T.G. Fraser, crashed near Mission, BC, and was killed.[137]

Nos 4 and 5 (GR) Squadrons carried out what service training they could in conjunction with surveys on both coasts. In British Columbia 4 (GR) Squadron flew its Vancouver flying boats on numerous reconnaissance flights to locate air-base sites and collect topographical and meteorological information. No 5, equipped with Fairchild seaplanes, flew similar missions from its Halifax base. Both units carried out exercises with the navy and militia and they began to receive new equipment when the Supermarine Stranraer flying boats were delivered in late 1938, first to 5 Squadron, then to No 4.[138]

None of the permanent squadrons, let alone the skeleton non-permanent (renamed 'auxiliary' in December 1938) squadrons, was sufficiently manned, equipped, or free from other tasks to be able to concentrate fully on a balanced and progressive training programme for its war tasks. Those had been detailed in the 1938 Joint Staff Committee Plan for the Defence of Canada which, for the first time, gave direction on service roles for home defence. Drawing on the previous 1936 plan for twenty-three RCAF squadrons, not all of which had been formed when war broke out, it allocated seventeen – including 2 (AC) Squadron, which was to revert to army co-operation duties once selected auxiliary squadrons were adequately manned and equipped – to immediate home defence tasks on the two coasts: reconnaissance, strike, air defence, and coast artillery co-operation. Two other squadrons (three, once No 2 reverted) were to work with an army mobile force. Four more (two bomber and two fighter) were to remain initially in central Canada for general reserve and air defence purposes.[139]

In the late summer of 1939, the RCAF began to mobilize for war. On 24 August Air Commodore Stedman was dispatched once more to Washington to purchase aircraft,[140] and an agreement was quickly reached to manufacture North American Harvards in Canada by Noorduyn Aircraft Ltd of Montreal. On 31

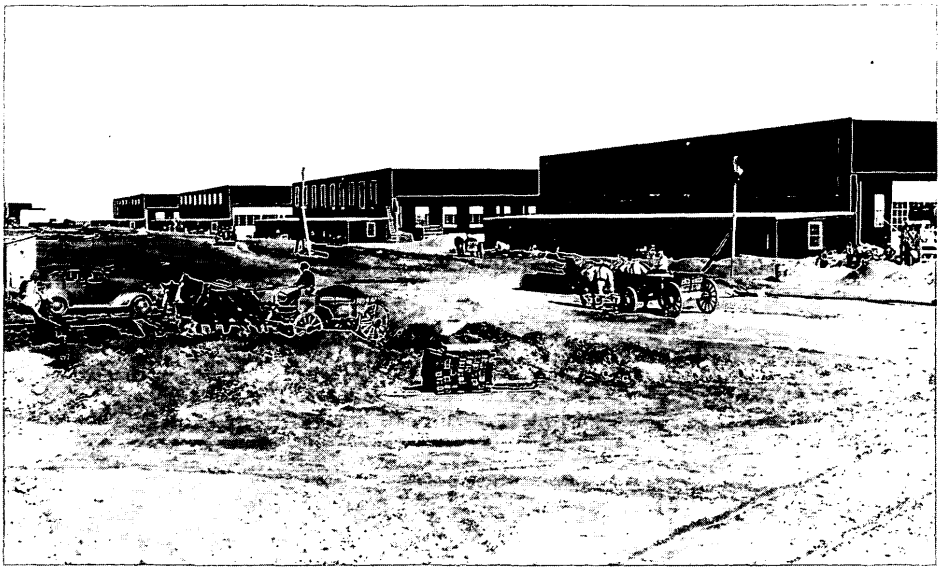
August the three wings and eleven squadrons of the Auxiliary Air Force were called out on a voluntary basis, and instructions were given to bring it and the permanent force to full authorized peace establishment. Two days later all the regular and seven of the auxiliary squadrons were formally placed on active service, and were joined on 5 September by the remaining four organized auxiliary squadrons. At 1430 hours on 10 September the war telegrams were dispatched.[141]

PART TWO

The British Commonwealth Air Training Plan

Negotiators of the BCATP Agreement, Ottawa, December 1939. Front row, left to right: Air Chief Marshal Sir R. Brooke-Popham, RAF; Colonel J.L. Ralston, minister of finance, Canada; Group Captain H.W.L. Saunders, chief of the air staff, New Zealand; Senator R. Dandurand, Canada; Lord Riverdale, United Kingdom; Prime Minister W.L.M. King, Canada; J.V. Fairbairn, minister of air, Australia; E. Lapointe, minister of justice, Canada; Captain H.H. Balfour, undersecretary for air, United Kingdom; N.McL. Rogers, minister of national defence, Canada; Air Marshal Sir C. Courtney, RAF. (RE 12378-7)

BCATP schools being planned in the drafting room of Air Force Headquarters, 28 June 1940. (PL 522)



Clearing the site for B&GS, Mossbank, Sask., October 1940. (PL 1669)

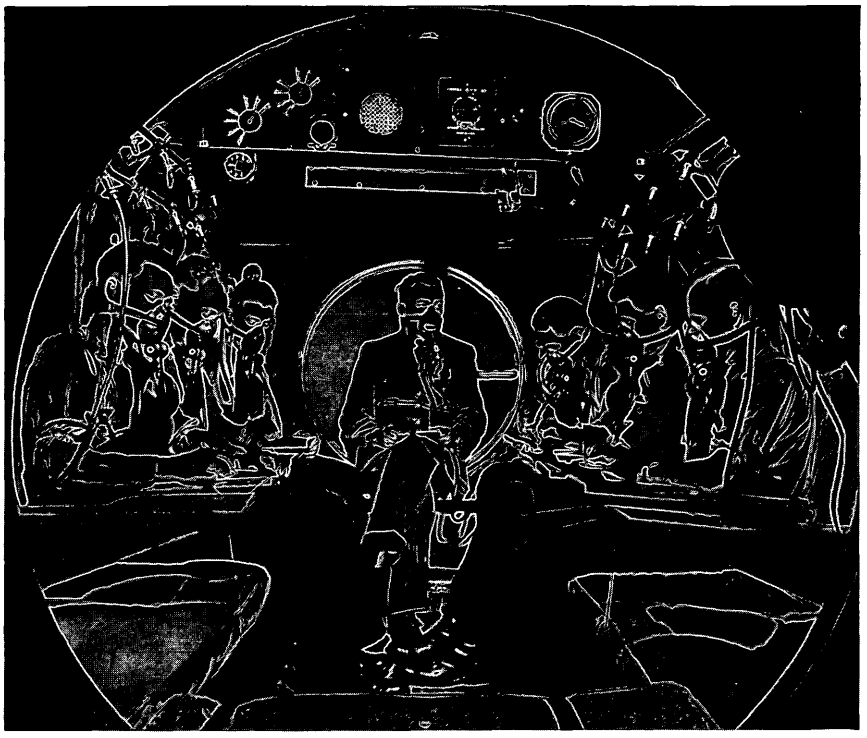
Volunteers learned that line-ups were an inevitable part of wartime service. Winnipeg, October 1940. (PL 1732)

Recruiting poster. (PL 3028)

Security of personal belongings seems to have supplanted sabotage as the concern of the commander of 5 Manning Depot, Lachine, Que., April 1943. (PL 16191)

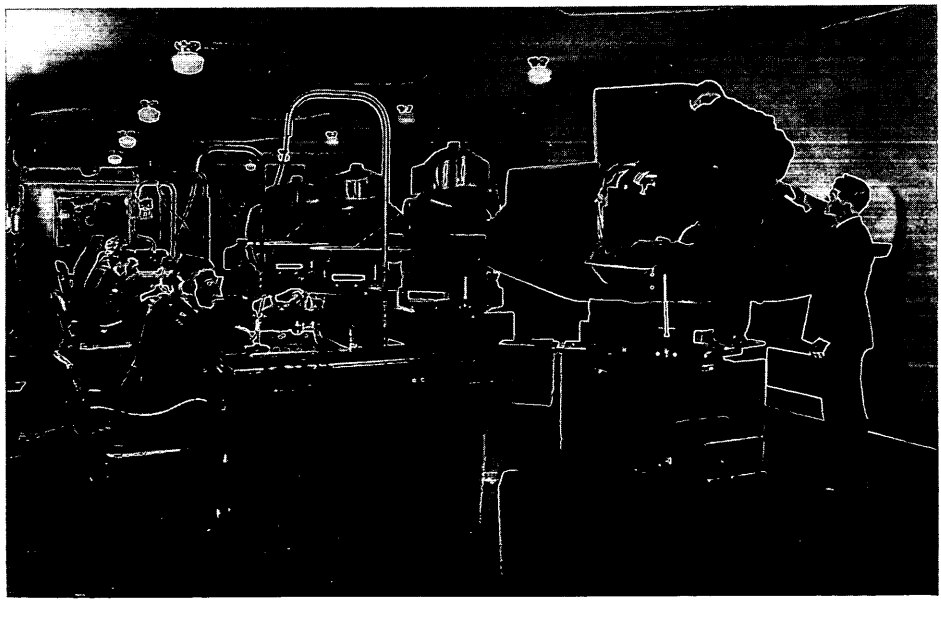
Polishing buttons at I ITS, Toronto, May 1940. (PA 141353)

Air Commodore A.T.N. Cowley, air officer commanding, No 4 Training Command, leads the training flights at the opening of 18 EFTS, Caron, Sask., 2 July 1941. Taking the salute are Prime Minister King and L.J. Martin, the civilian manager of the school. (PMR 84-979)

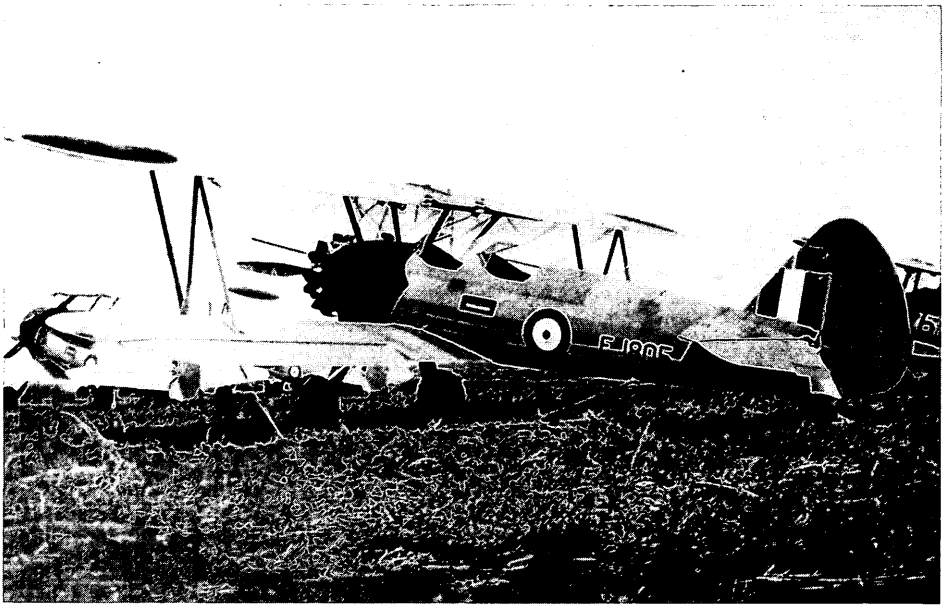


The ability to withstand drops in air pressure was an essential attribute for aircrew, such as these RCAF recruits undergoing testing in the decompression chamber at the RCAF Medical Investigation Centre, Toronto, in June 1942. (PA 140655)

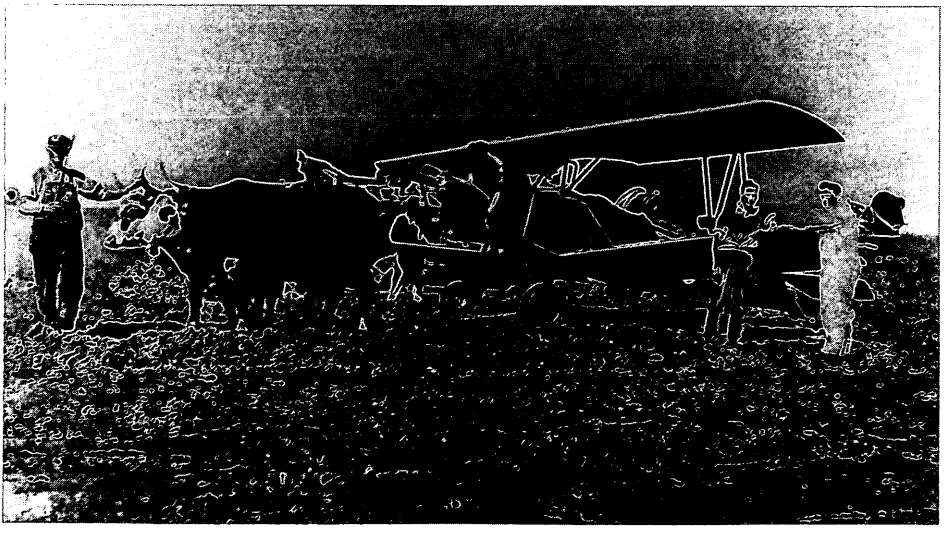
Instructor and pupil with a Tiger Moth, the BCATP's basic trainer, 1 EFTS, Malton, Ont., 5 June 1941. (PL 3580)



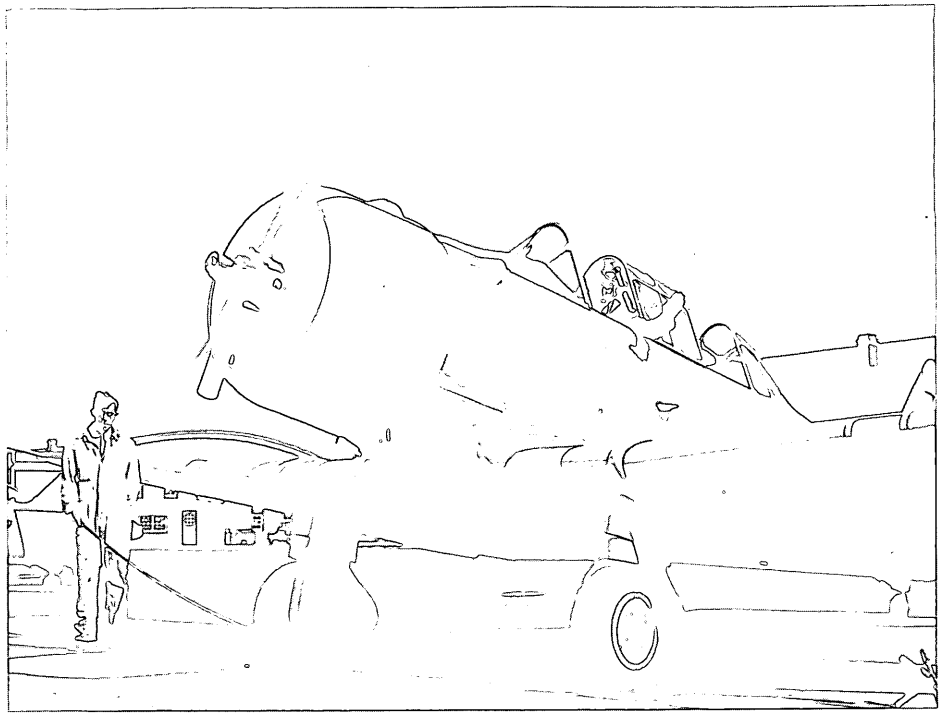
The Link trainer was a crucial test of a recruit's suitability for pilot training. (PA 140658)



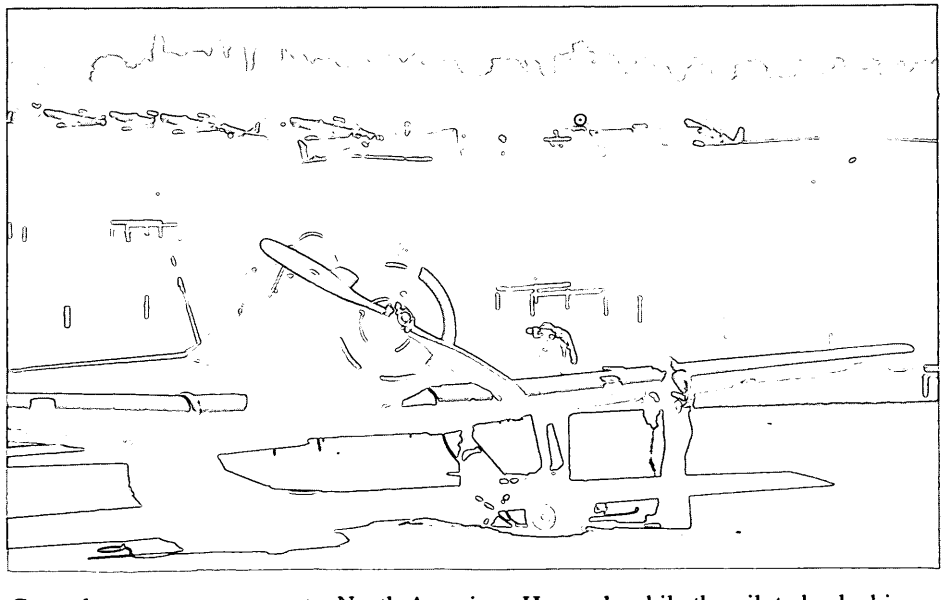
A Stearman, 300 of which were obtained in 1940, at 31 EFTS, De Winton, Alta. The lack of an enclosed cockpit made the Stearman all but useless for winter training. (PMR 77-148)



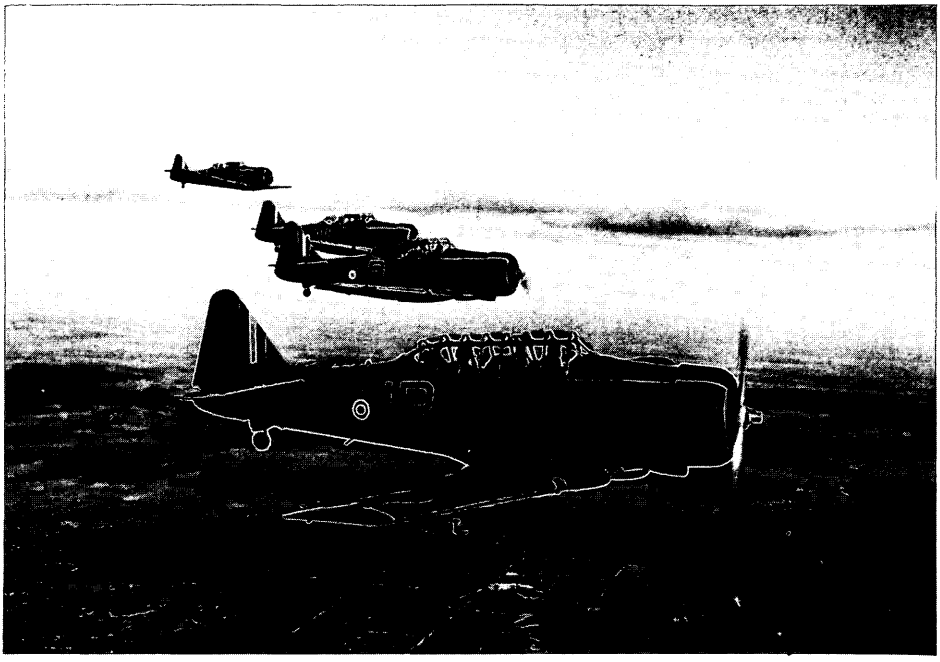
Oxen towing a Fleet Finch at 17 EFTS, Stanley, NS, in 1940. (PMR 84-977)



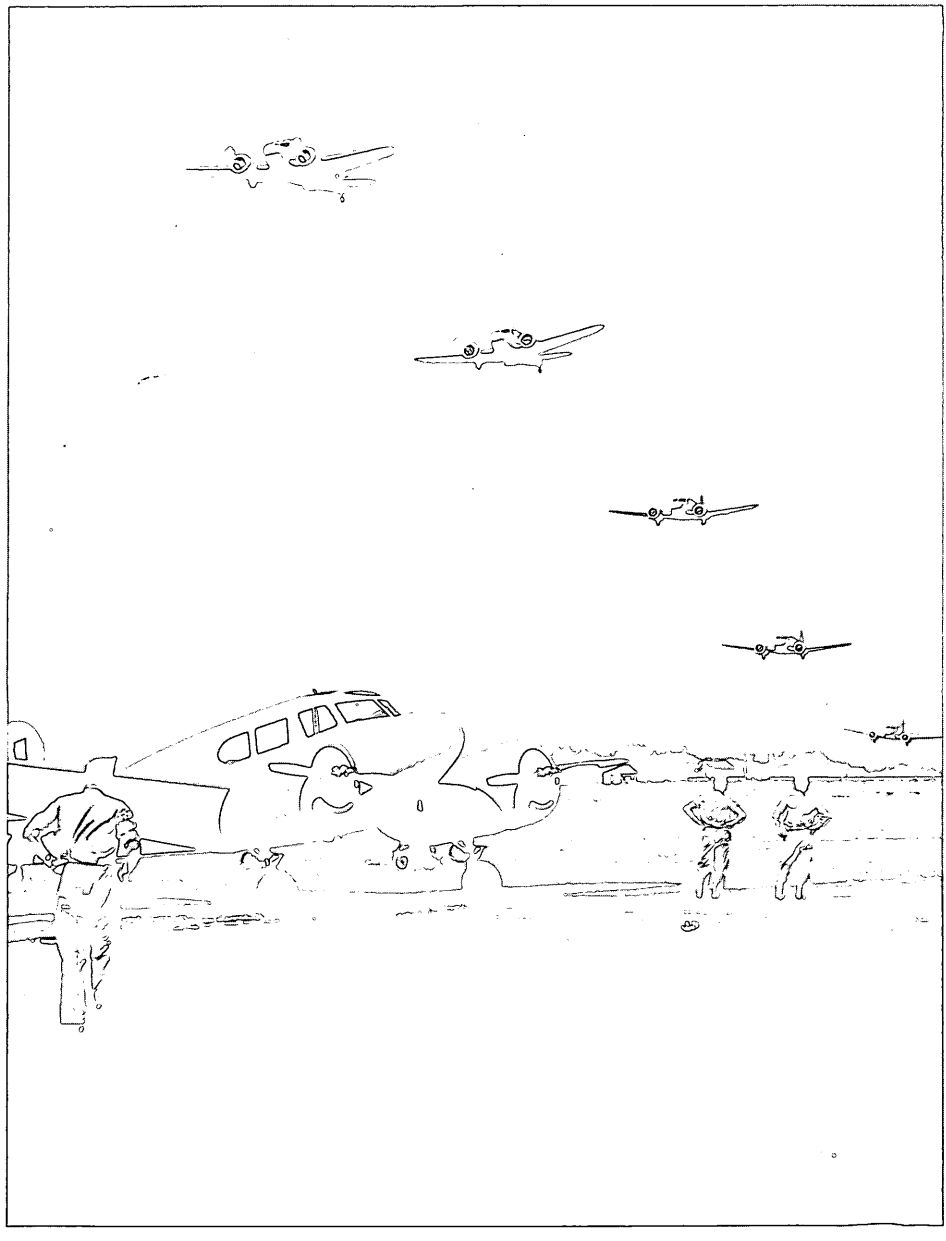
A North American Yale, a cousin of the ubiquitous Harvard, sets off from 1 SFTS Camp Borden. (PL 2222)



Groundcrew prepare to start a North American Harvard, while the pilot checks his parachute. (PA 140661)



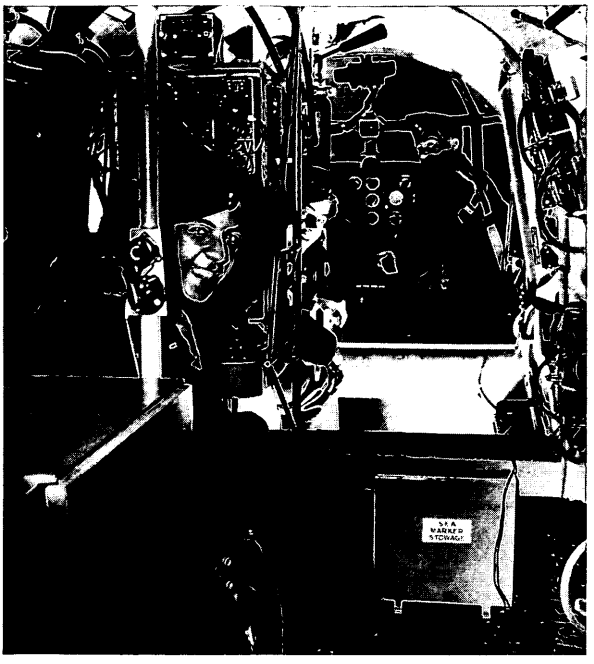
Canadian-built Harvard trainers over farmland near 2 SFTS, Uplands, Ottawa. (PA 140659)



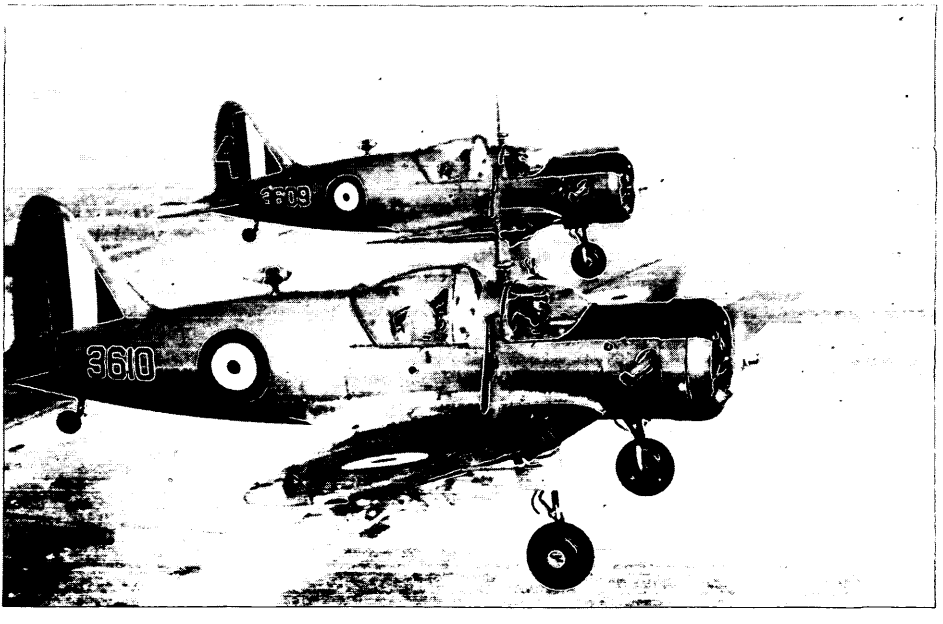
Cessna Cranes, in their characteristic yellow paint scheme, fly past in formation at 12 SFTS, Brandon, Man., July 1941. (PL 5747)

Defence Minister 'Chubby' Power getting instruction from a pupil at 1 Wireless School, Montreal, 1940. (PL 1854)

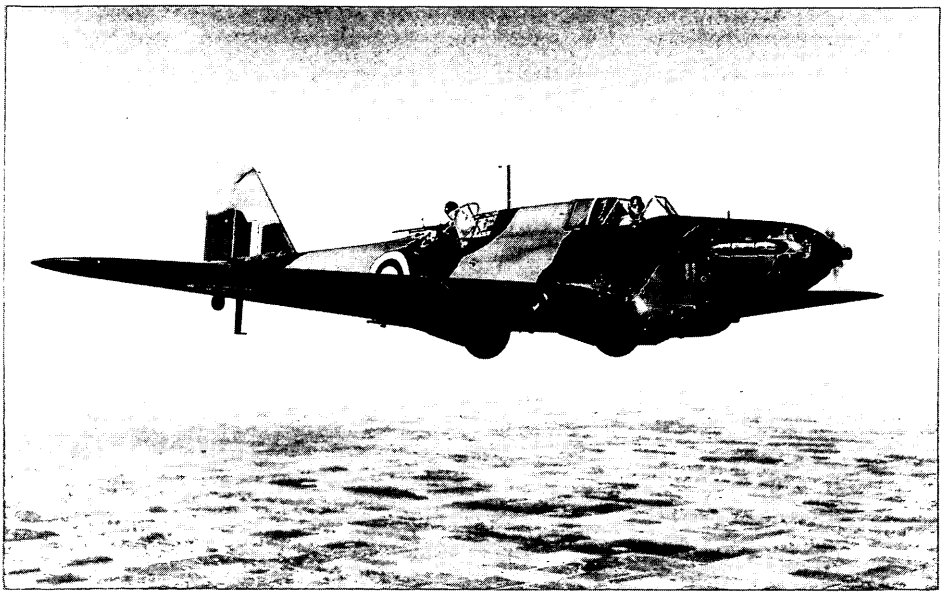
Radio instruction at 19 EFTS, Virden, Man. (PA 140653)



The interior of an Anson, with the two wireless stations at left occupied by air cadets on a familiarization flight, June 1944. (PL 25113)



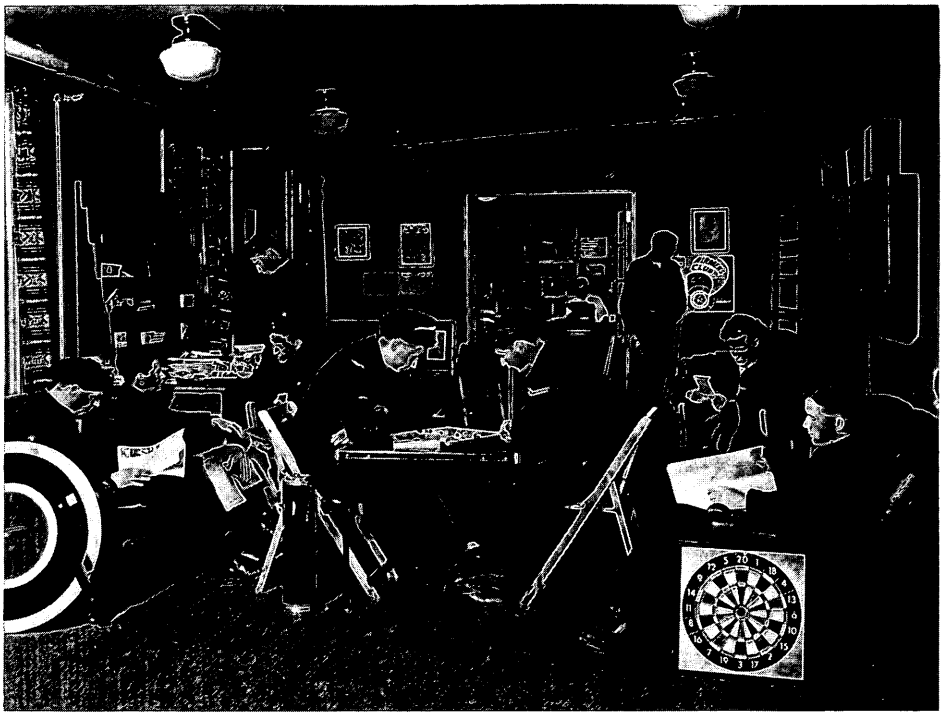
Fleet Forts of 2 Wireless School, Calgary, Alta. Originally designed for pilot training, the Canadian-built Forts were modified into wireless trainers. (PMR 78-317)



The Fairey Battle, unsuitable for operations, was the mainstay of BCATP bombing and gunnery schools. This aircraft is from 31 B&GS, Picton, Ont., December 1940. (PL 2449)

Trainee navigators take sun-shots at Rivers, Man. (PL 3722)

Sergeants E.M. Romilly, RCAF, W.H. Betts, RAAF, and J.A. Mahoud, RAF, under observer training in an Avro Anson of I ANS, Rivers, Man., 4 June 1941. Romilly was later killed on operations. (PL 3740)



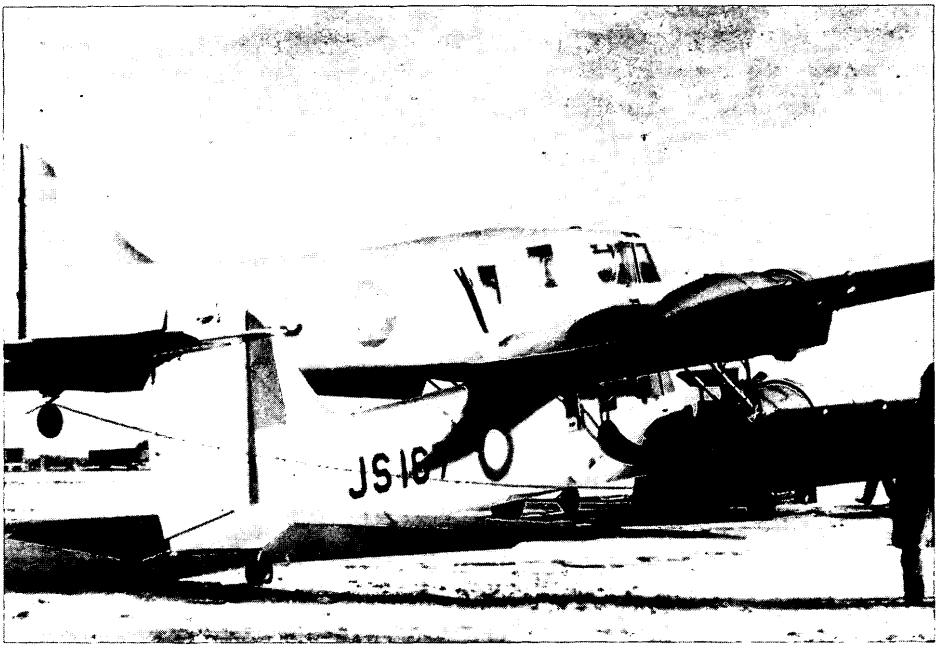
Airmen's recreation room at 19 EFTS, in October 1944. Those with white tabs tucked into the front portion of their wedge caps are undergoing aircrew training. (PA 140652)

Leading aircraftman K.G. Spooner, one of two BCATP trainees to win the George Cross: while a navigator trainee at 4 AOS, London, Ont., he took charge after his pilot fainted and ordered the rest of the crew to bale out. Two students did so, but Spooner, the wireless operator, and the unconscious pilot were killed when the Anson plunged into Lake Erie. (PL 112740)

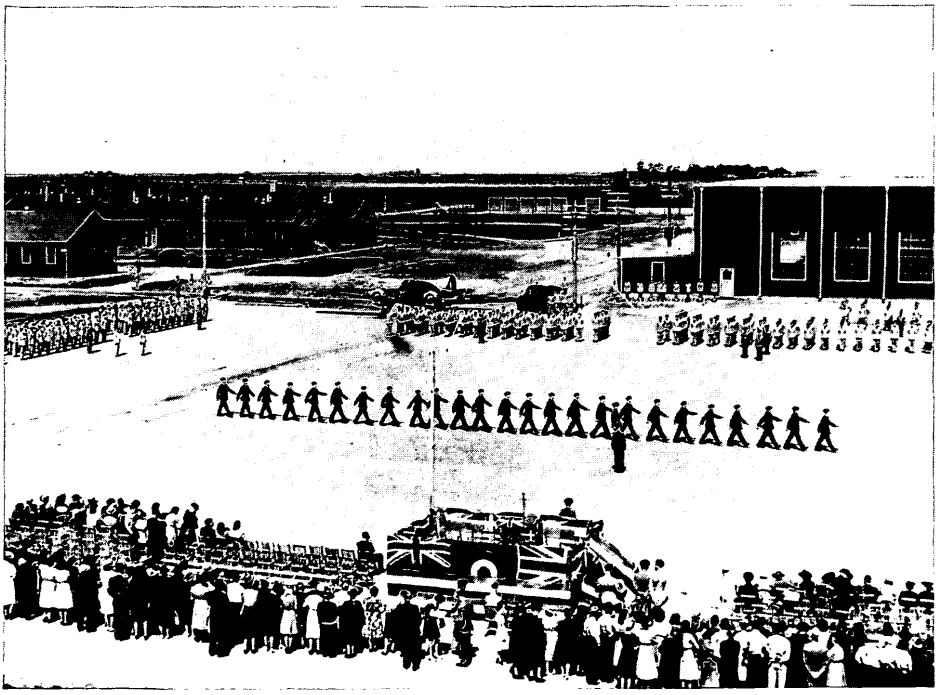
A full complement of de Havilland Tiger Moths at 9 EFTS, St Catharines, Ont., December 1943. (PMR 75-355)

A typical layout for BCATP Service Flying Training Schools: 6 SFTS, Dunnville, Ont. (PMR 77-610)

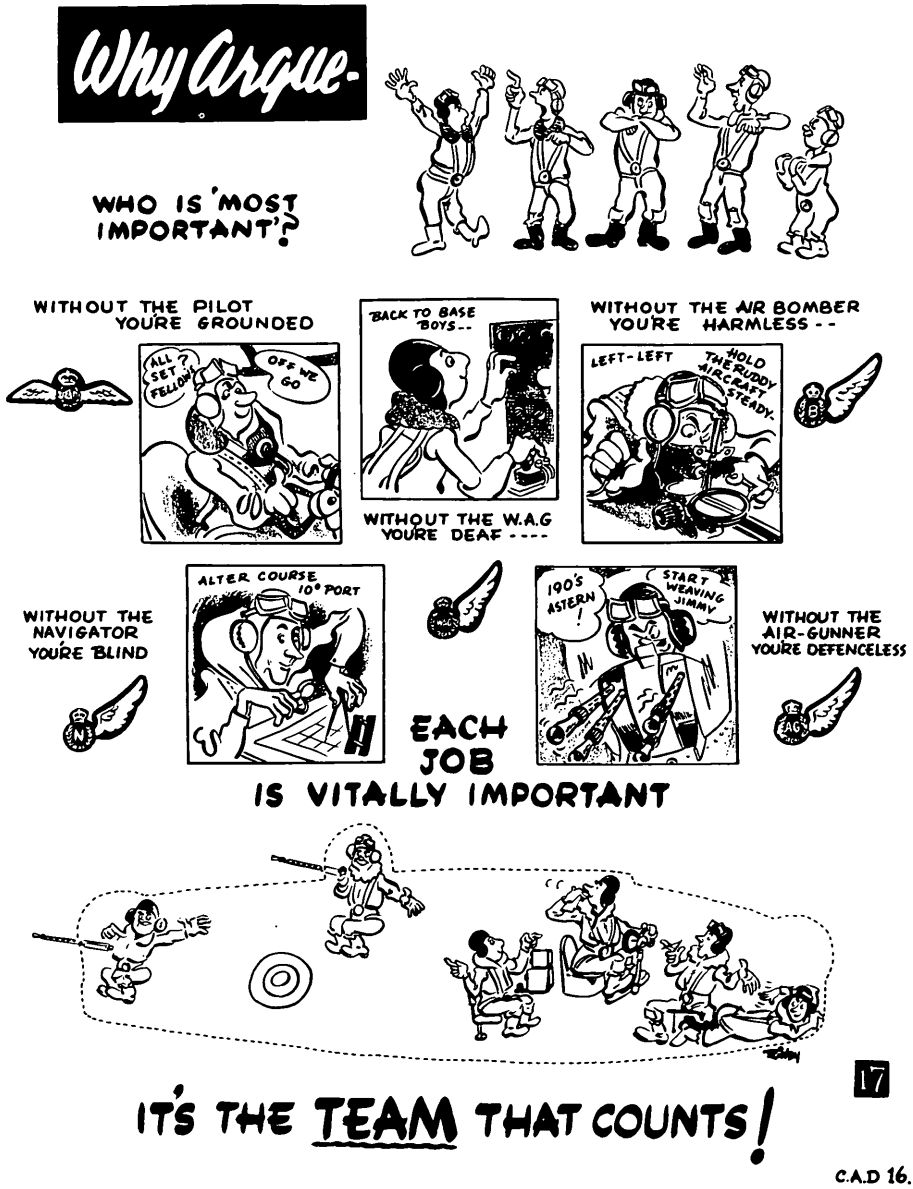
Salute for a fallen comrade, 19 EFTS, Virden, Man. (PA 140660)



Pilot error, 19 SFTS, Vulcan, Alta, 23 February 1944. (RE 23061-11)

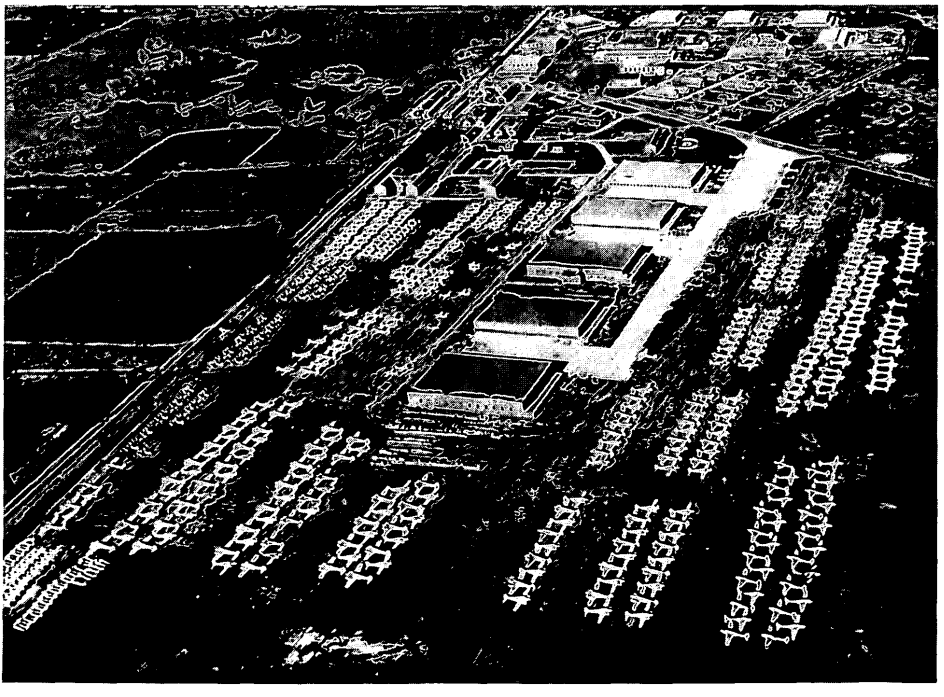


Wings Parade at 15 SFTS, Claresholm, Alta, 16 August 1941. (PMR 74-280)



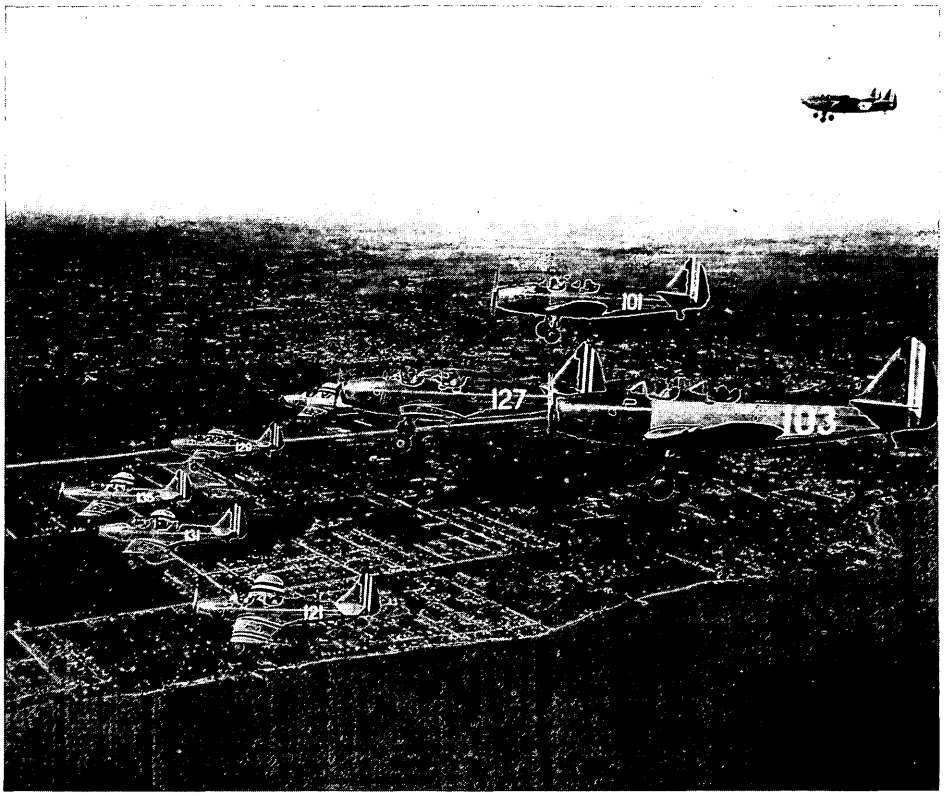
A poster emphasizing the importance of all aircrew – an important morale booster since many volunteers, having failed pilot training, had to swallow their pride and serve as navigators, air observers, gunners, or air bombers. (PMR 85-024)

Flying Officer S.F. Wise, at Summerside, PEI, 1944. (PMR 84-1029)

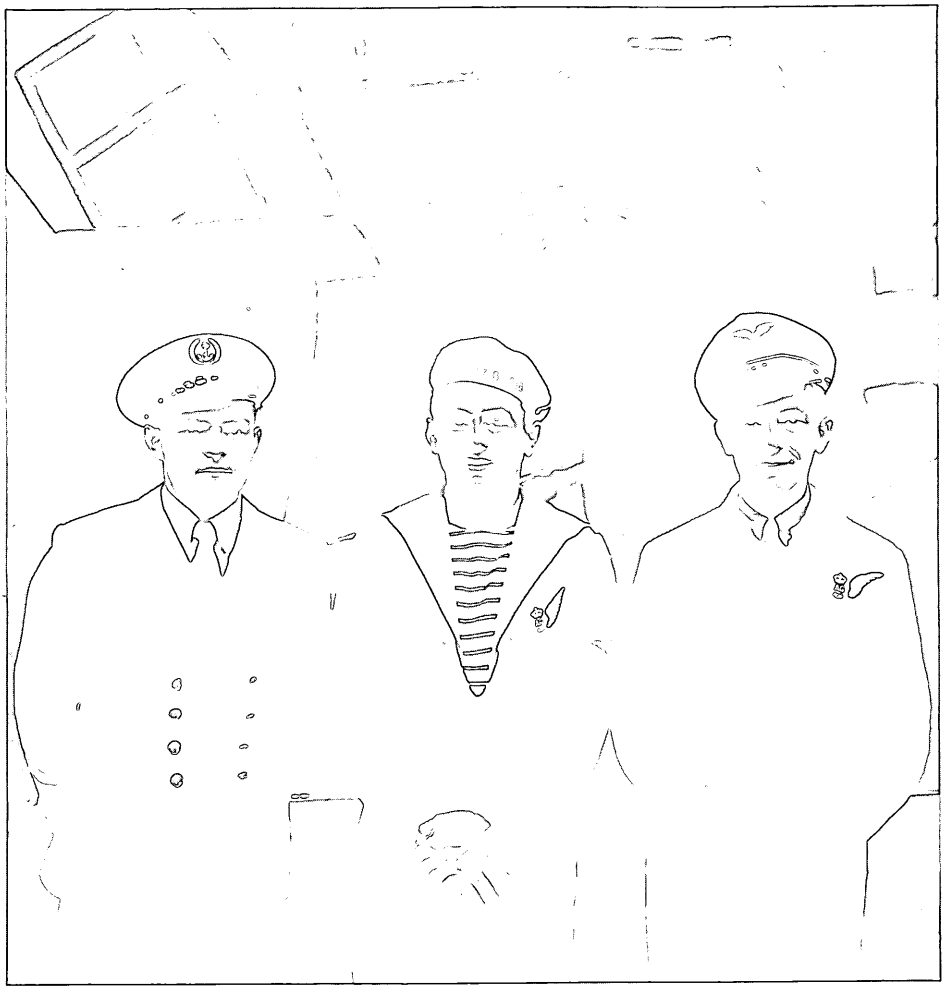


RCAF Station Trenton, the largest unit in the BCATP, housing the Central Flying School, 1 Instructors School, 1 Composite Training School, and a Reselection Centre for washed-out aircrew. (PMR 79-279)

Prime Minister W.S. Churchill, who took a great interest in the BCATP, during a visit to 2 SFTS, Uplands, in December 1941. (PL 6510)

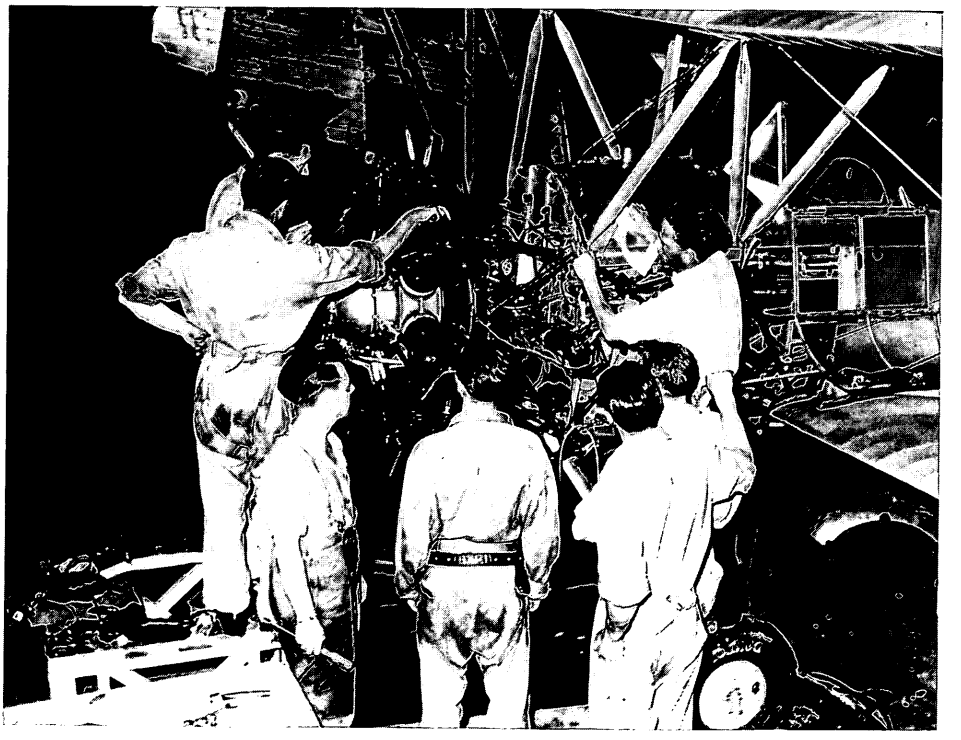


Fairchild trainers of 'Little Norway,' the Norwegian flying training establishment, over Lake Ontario. (PA 115422)

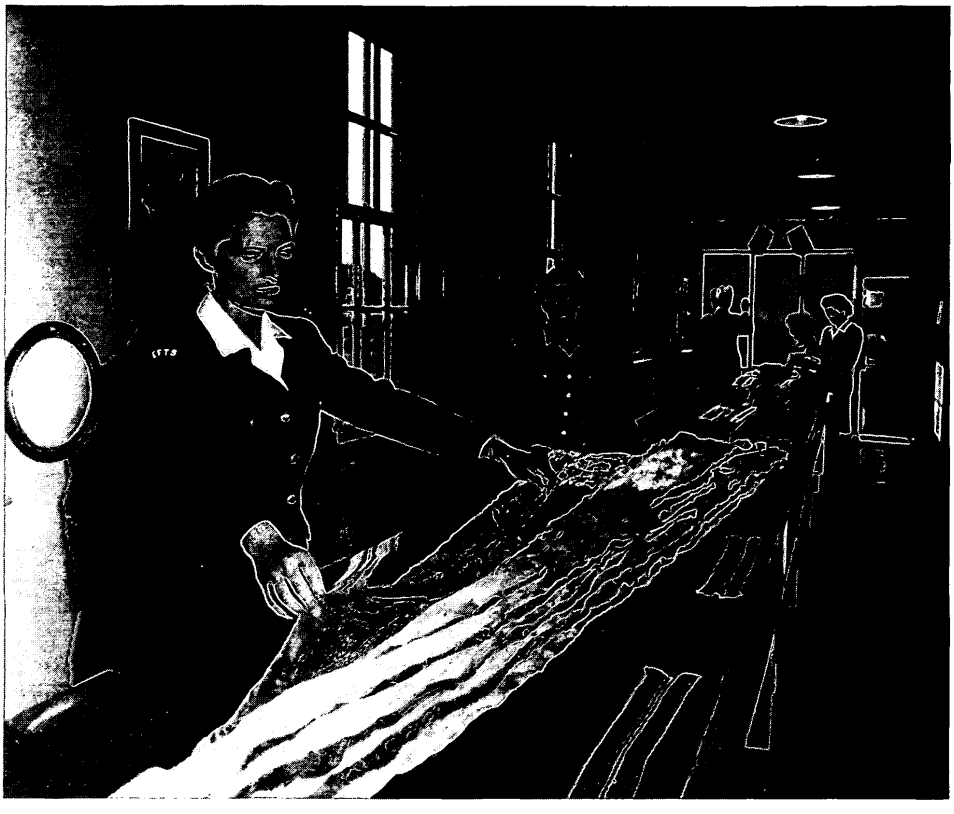


Not all BCATP students came from the Empire and Commonwealth. Some, such as these Free French Navy air gunners who earned their wings at 9 B&GS, Mont Joli, Que., in September 1944, came from occupied Europe. (PL 25624)

Leading Aircraftman J.F. Lazaro, from Madras, investigating a bombsight, 41 SFTS, Weyburn, Sask., December 1943. (PL 23215)

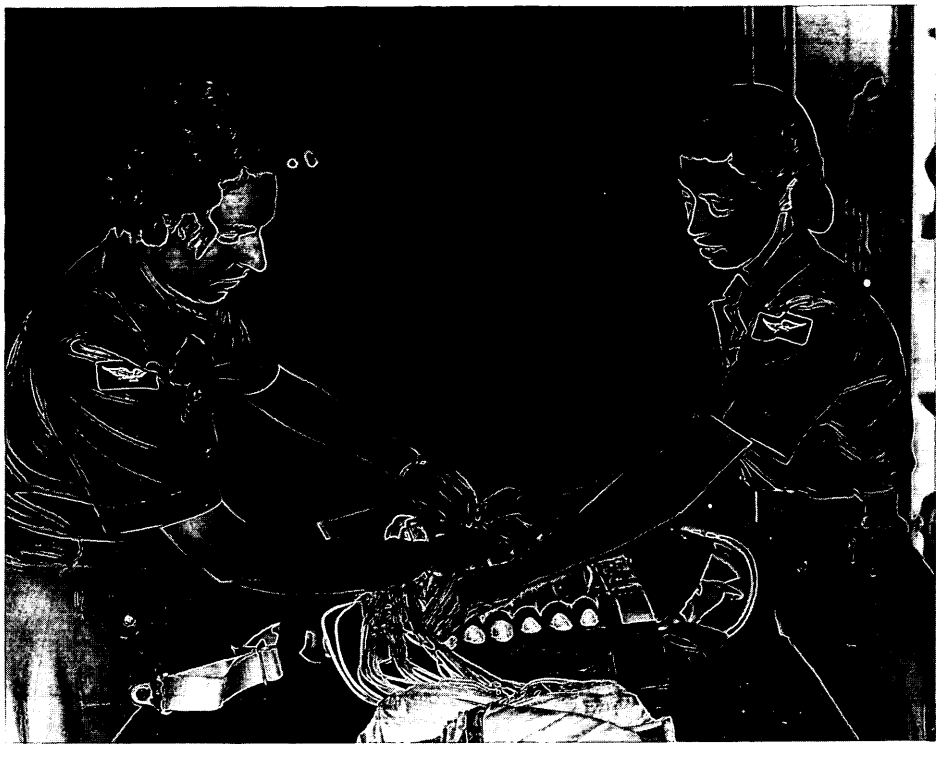


Aero-engine mechanics at the Technical Training School, St Thomas, Ont. (PL 1041)



Packing parachutes. Civilian employees at 19 EFTS, Virden, Man., October 1944. (PA 140654)

Polishing the perspex of an Anson at 16 SFTS, Hagersville, Ont., August 1942. (PL 9838)

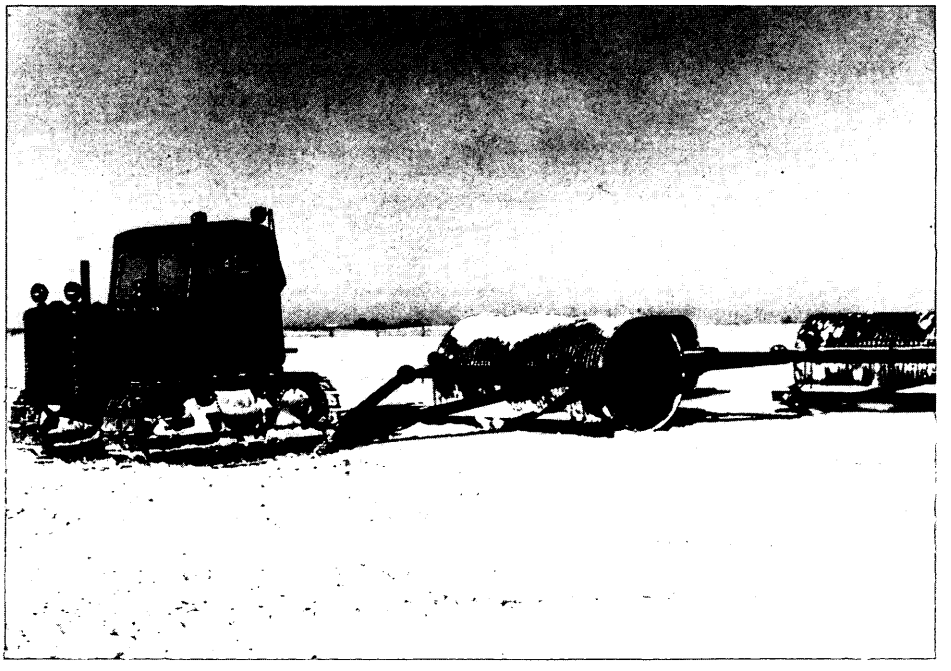


Two members of the Women's Division packing parachutes for the BCATP at Camp Borden, August 1942. (PL 9858)

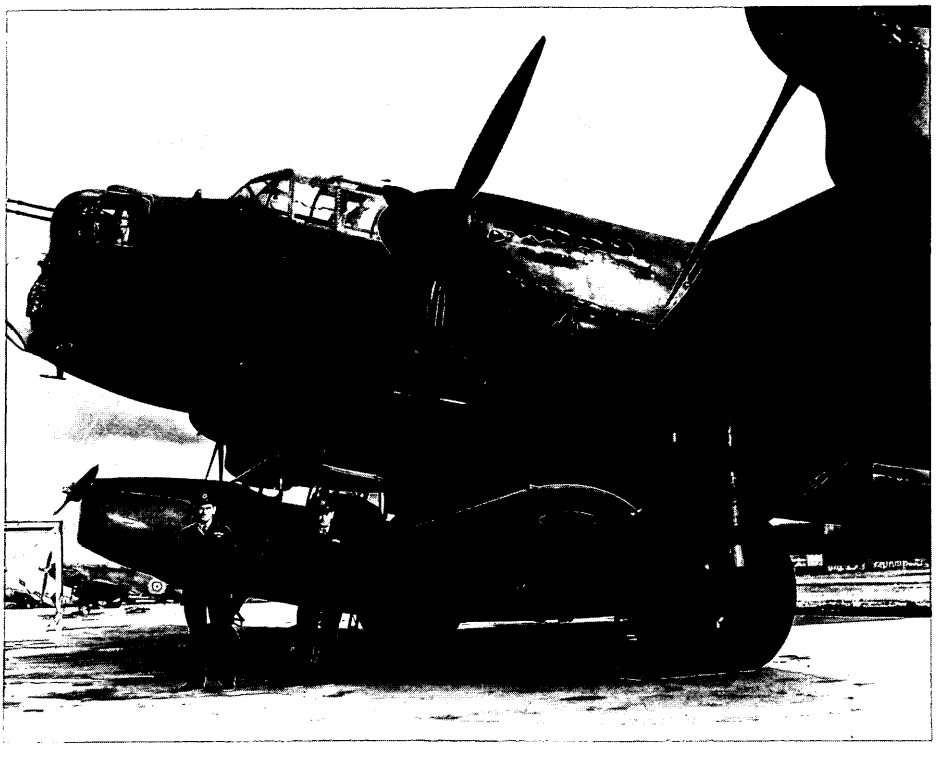
Air Marshal W.A. Bishop, VC, CB, DSO, MC, DFC, ED, talks to Hollywood star James Cagney during the filming of *Captains of the Clouds*, at 2 SFTS, Uplands, July 1941. (PL 5065)

Rae Stuart working on a Tiger Moth at 9 EFTS, St Catharines, Ont. (PMR 75-363)

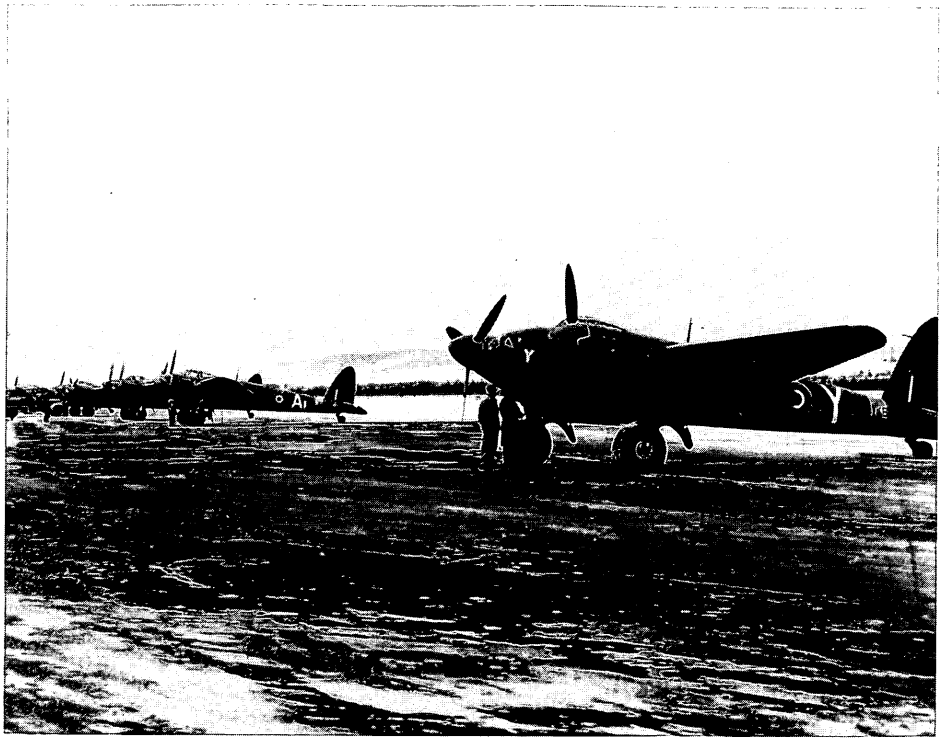
F. Patterson, manager of 9 EFTS, St Catharines, Ont., and A. Parsons, the secretary treasurer, in their civilian BCATP uniforms. (PMR 75-368)



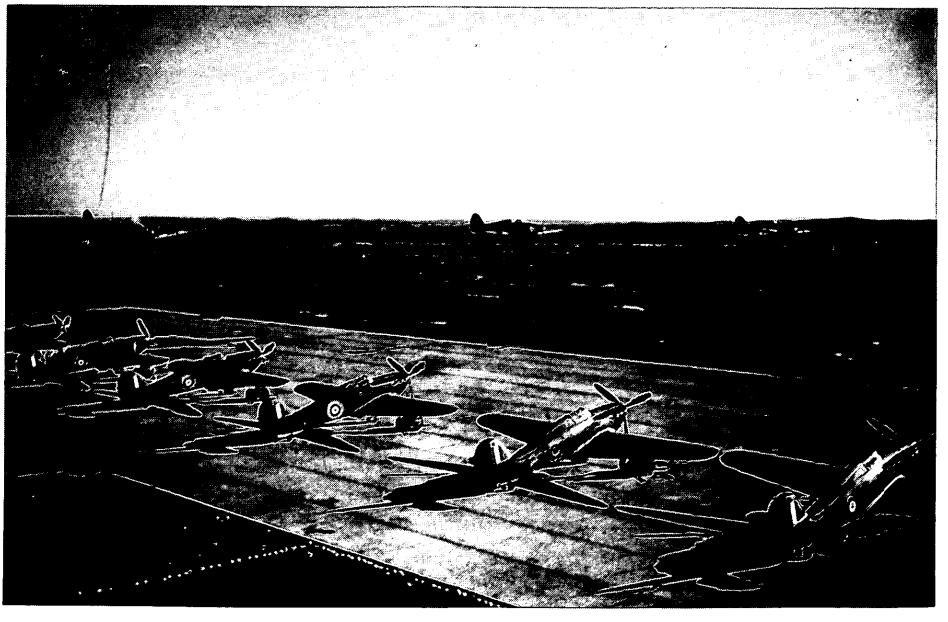
Compacting snow at 36 SFTS, Penhold, Alta, often the best solution to the problem of runway maintenance in the winter. (PMR 84-978)



The long and the short of it: an Avro Lancaster, the RCAF's largest operational aircraft, and a Fairchild Cornell trainer at the RCAF Test and Development Establishment, Rockcliffe, October 1943. (PL 21542)



The sleek de Havilland Mosquitoes of 36 OTU, Greenwood, NS. (PL 24151)



Hurricanes of 1 OTU, Bagotville, Que. (PA 140644)

Liberator crews of 5 OTU, Boundary Bay, BC, practising high-level formation flying. (PA 132050)

Introduction

The British Commonwealth Air Training Plan had its origins in the prewar strategic requirements of the Royal Air Force, and in the close and longstanding military, political, and emotional ties between Canada and Great Britain. Canada had been the home of an RFC/RAF training establishment in the First World War (when there was no RCAF), and the RAF was inclined to assume that it could still act on the old colonial basis when its prewar expansion plans indicated that overseas recruitment and training would be advisable. It was soon disillusioned. Ottawa firmly opposed anything that might compromise Canada's freedom of action in the event of war. The Mackenzie King government did allow Canadians to be trained or selected at home for service in the RAF and eventually agreed to the training of a few British pilots in Canada. The government refused outright, however, to permit any of the training conducted in the dominion to come under British control. That, to King and his colleagues, would be an infringement of Canadian sovereignty.

The outbreak of war diminished, although it did not remove, King's inhibitions about close Anglo-Canadian co-operation. Canada's prominent – and eventually pre-eminent – role in the British Commonwealth Air Training Plan was dictated by geography and economics on the one hand, demography and politics on the other. The plan's large-scale training commitments required a great many airfields, and clear skies, free from the threat of enemy air activity. Training had to take place within reasonable distance of the likeliest operational theatre, Western Europe, and in close proximity to an industrial base with significant potential for expansion in terms of airframes and engines for training aircraft. Canadian factories were already tooling up in 1939 to produce airframes, and both frames and engines could be obtained from the neighbouring United States. In addition, Canada had a greater population than any of the dominions or 'white' colonies from which to recruit aircrew and provide the human infrastructure for a training system.

A big training plan had clear political advantages. Conscription, brought about by the heavy casualties suffered on the Western Front by the Canadian Corps during the First World War, had come close to splitting the country in 1917. For that reason, if for no other, King was reluctant to see Canada committed to a major contribution of soldiers; he feared that casualties might be as

great or greater in a second European war; he sought to avoid another manpower crisis at all costs. Canada's war should be confined as much as possible to the home front, and the overseas effort left to volunteers – as it happened, aircrew were, by definition, all volunteers. Ironically, the course of events in Europe led to substantial air casualties, which was not at all what the government had hoped when it embraced the plan in 1939. Nonetheless, the RCAF never ran short of volunteers.

Article 15 of the BCATP Agreement provided for the possible formation of RCAF squadrons overseas, manned by Canadian graduates of the plan. Putting that article into effect posed all sorts of difficulties, both for British and Canadians, and although a conscious effort was made to form such squadrons, the RCAF never succeeded in creating the separate and distinct identity achieved from the very first by the Canadian Army. The story, however, is essentially one of the RCAF overseas, and will be dealt with in the next volume of this series.

The British Commonwealth Air Training Plan was part of a wider Empire Air Training Scheme [EATS] designed to produce large numbers of trained aircrew. Canada, initially the largest contributor outside of Great Britain, adopted the BCATP designation while the original arrangements were being completed in the fall of 1939. The British and other partners in the plan usually employed the imperial terminology, at least until the BCATP was renegotiated in the summer of 1942, when Canada accepted a still greater part. From that time until the plan was closed out, on 31 March 1945, the Canadian identification was more commonly – but not universally – used.

Any organization's success must be measured by how well it achieves its assigned objectives. No organization which expands to such a size as the BCATP, and as quickly, can be without faults, but in the simplest and most important sense the BCATP met and even exceeded its goals, providing the Allied air forces with more than 131,000 trained aircrew. Of all the Commonwealth aircrew trained during the Second World War, 45 per cent received some or all of their training in Canada. The BCATP was a major contributor to the air supremacy the Allies had achieved in every theatre of war by 1944.

5
Origins

The First World War set a clear precedent for the British Commonwealth Air Training Plan in Canada. Fully two thirds of the 21,000 Canadians who served in Britain's air forces in the First World War entered through RFC/RAF Canada, a recruiting and training organization established in Canada but controlled from London and commanded by a British officer. Over 3000 Canadians completed pilot training by this means; more than 2500 went overseas.[1] The British naturally hoped to receive a similar major contribution in any future European conflict, when both sides could expect very large numbers of aircrew casualties. Success or failure would depend, it was repeatedly emphasized in the interwar years, 'on how rapidly others could be drafted to take their places.'[2] 'Others' inevitably included dominion airmen, who 'would come in a most invaluable form and at the most critical time.'[3] As the deputy chief of the British air staff told Squadron Leader Vernon Heakes, RCAF liaison officer at the Air Ministry, in early 1939: 'All we want of Canada in a war is pilots and aircraft.'[4] Air Vice-Marshal Charles Portal put it even more bluntly: the 'requirement' was for 'bodies.'[5]

Such imperial assumptions had little immediate impact on peacetime recruiting policy. For Canada, the initial flow of pilots was almost exclusively the other way. Partly because of the dearth of flying training facilities, between 1925 and 1928 the RCAF recruited pilots with RAF short-service or reserve commissions.[6] This need for trained pilots was one of the main reasons behind government support of the flying-club movement, and by the end of the decade conditions had changed. As the chief of the general staff observed at the Imperial Conference of 1930, it seemed 'extremely improbable that further enlistments from the Royal Air Force would be required ...'[7]

For its part, the RAF had little need for dominion recruits. It allowed, but did not encourage, outside enlistments, opening only a handful of vacancies to dominion applicants.[8] In 1931 the Air Ministry said that it was willing to extend an Anglo-New Zealand arrangement to grant the director of the RCAF the right to recommend a limited number of fit, educated young men with civil pilot's licences. These candidates had to travel to England at their own expense with no assurance that they would be enrolled. Those without official blessing could apply directly to the Air Ministry, but, the RCAF liaison officer in London

warned, it was 'extremely inadvisable for them to proceed to England without first obtaining our opinion as to the likelihood of their acceptance.' Competition was keen; 'only a few vacancies may be expected.'[9]

An understanding on permanent commissions in the RAF was reached in 1932, but the British remained hard to please. Canada could only expect one 'assured vacancy' for all Royal Military College and university graduates, although an effort would be made to find other spots 'if more than one eminently suitable candidate were available.'[10] In the year 1932-3, four Canadian candidates were nominated and accepted for permanent commissions, another was appointed to RAF College, Cranwell, and one was granted a short-service commission. In 1933-4, two Canadians were given permanent commissions.[11]

Then circumstances abruptly changed. After Hitler came to power in Germany and attempts at disarmament collapsed, the British moved to correct the worst deficiencies of their armed services. This resulted, in the words of Sir Maurice Hankey, secretary to both the British Cabinet and the Committee of Imperial Defence, in 'something of a concentration on the Air Force.'[12] The RAF looked to its imperial partners for manpower and the training space needed to support an enlarged force in war.

As one early step, the Air Ministry had suggested a cost-sharing agreement under which Canadian, South African, and New Zealand air force cadets could be granted short-service RAF commissions for a period of five years and then might be returned home for reserve service. Australia already had such an agreement for fifteen officers a year. In November 1934 the British formally placed this proposal before the Canadian government. It was accepted in principle in June of the next year.[13]

The new scheme was to come into effect on 1 January 1937. Dominion authorities were to select Canadians between eighteen and twenty-one years of age, give them appointments in the RCAF, and, after twelve months' training and a medical examination, send them to the RAF where they would be granted short-service commissions. Requests for extensions of service in the RAF reserve or conversions to permanent commissions would be subject to Canadian consent. Without such consent, each officer was to be repatriated after his service and commissioned in the RCAF, where he would be liable for four years' service under Canadian regulations.[14]

Even before the new plan could be launched, the British proposed a wider air training agreement. Many Canadian applicants for the RAF had no air force training. To tap this source, the Air Ministry outlined a scheme 'which would obviate the risk of a candidate being put to unnecessary expense through rejection in this country.' The United Kingdom was prepared 'to accept for appointment to short service commissions a maximum of twenty-five candidates a year who would be finally selected in Canada.' The RCAF was to examine applicants' suitability and medical fitness, and short-service commissions would be granted on Canadian authority without further examination overseas.[15] The Department of National Defence approved this scheme on 27 April 1936, but acceptance at the political level was another matter.[16]

Yet another British proposal had been placed before the Canadian government

by the British air minister, Lord Swinton, in March 1936. 'It has occurred to Lord Swinton,' wrote Vincent Massey, the Canadian high commissioner in London, 'that in addition to the Canadian Officers who are being admitted to the R.A.F. under the arrangements which call for their training in England, an additional number might be provided with their preliminary training in Canada and taken on the strength of the R.A.F. after having obtained there certain flying qualifications. The idea was that the course they would receive in Canada would be of a civilian nature in which existing instructional equipment in Canada would be used. The United Kingdom Government would presumably pay the cost of such training just as they do in the case of pilots trained in civilian schools here in Great Britain.'[17]

There were three British air training proposals on the table. One had been accepted by Canada in principle.[18] The Air Ministry hoped for an immediate and favourable response to the other two, but in vain. One reason for the dominion's inaction can doubtless be traced to opposition in the Department of External Affairs, where such schemes were apt to be viewed not as mere Anglo-Canadian military co-operation, but rather as a broad strategic commitment. A senior External Affairs' official, Loring Christie, wrote: 'It seems to me all these schemes are unsound, unless it is to be assumed or decided now that Canada will join Great Britain in any war that may involve the latter.'[19]

While these modest training proposals were circulating within the bureaucracies of London and Ottawa, the Royal Air Force staff was examining other possibilities. Considering potential training sites outside Great Britain, the director of RAF training, Air Commodore A.W. Tedder, wrote in May 1936 that 'Canada has advantages in weather, terrain, accessibility to U.K. etc, over any other overseas location.' He buttressed his argument with a memorandum by Group Captain Robert Leckie, then superintendent of the RAF Reserve. Leckie pointed out the practicability of year-round flying training in Canada, while noting that the country was virtually immune to enemy action and close to both American industrial resources and Great Britain.[20]

That summer Tedder proposed to the visiting minister of national defence, Ian Mackenzie, that the RAF establish a British flying training school [FTS] in Canada. When asked what form it would take, Tedder 'explained that its provision and organization could be adapted to meet the Canadian political considerations. If it were considered desirable to avoid any definite linking of the Canadian Defence organization with the operations of the FTS, the FTS could be supplied and manned entirely from British sources, Canada merely supplying the site. On the other hand, if political considerations permitted, we could employ a percentage of Canadian personnel, material, etc.; or the FTS could even be run on joint lines.' Mackenzie said that he was anxious to co-operate in all such matters and 'personally only too glad to accede' to Tedder's proposal.[21]

Mackenzie did not betray his bias when he took the matter to the prime minister in early September.[22] The Cabinet made its decision a week later. It would be 'inadvisable,' the brief record of the discussion read, 'to have Canadian territory used by the British Government for training school purposes for airmen. It is the intention of the Canadian Government to establish training

schools of its own. The situation might give rise to competition between governments in the matter of fields, pilots, equipment and the like.'[23] There the matter temporarily rested for many months, despite an unsuccessful attempt by the Canadian Joint Staff Committee to resuscitate the idea at the time of the Imperial Conference of 1937.[24]

The greatest British concern still continued to be the expansion of existing programmes for the enrolment of Canadians in the Royal Air Force. Sir Francis Floud, the British high commissioner in Ottawa, argued that 'it was going to be extraordinarily difficult to persuade Canada to do anything' for the defence of the empire. The 'best hope of getting any assistance from them lay in such directions as the supply of pilots in time of war.'[25] While in London, Mackenzie had pointed out that there were many more applications for the RCAF than could be accepted, that more publicity would be useful in attracting Canadians to seek British short-service commissions, and that it would be possible to suggest to candidates who were not successful in getting into the RCAF that they should go to England to join the RAF.[26] On 25 March 1937 the Canadian government finally announced complete approval of the November 1935 British 'trained-in-Canada' proposal for the granting of RAF short-service commissions to fifteen Canadian candidates a year. Agreement in principle was also given to the British suggestion for a maximum of twenty-five candidates a year to be fully selected for the RAF in Canada: the 'direct entry scheme.'[27]

Within a month the British returned with far greater direct entry numbers in mind: 'groups of 12 to 20 candidates arriving at regular intervals throughout the year and commencing as soon as practicable.'[28] Political caution, however, prevailed,[29] and British inquiries remained unanswered. In November the British expressed the fear 'that if present quota is not raised, Canadian candidates, finding the quota full, will come independently to England in the hope of being enlisted ... rejected candidates will inevitably feel a sense of severe disappointment at not having been included in scheme of local selection ...'[30] The Canadians responded in late December, saying that they preferred not to increase the numbers beyond twenty-five 'so as not to prejudice the position in Canada should it be necessary at a later date to secure this type of candidate for service in the Royal Canadian Air Force.'[31] In March 1938, in a memorandum directed to the prime minister, O.D. Skelton, the undersecretary of state for external affairs, re-examined the issue after further representations from the British. The views of the Department of National Defence – 'that half the number previously proposed might well be spared, ie, up to 10 per month or 120 per year' – had not changed, and Skelton did not raise any objections.[32] The Cabinet acquiesced, and the good news was conveyed to Whitehall, Mackenzie King adding characteristically that 'it will be understood that this cannot be regarded as a commitment.'[33]

This decision had an immediate impact. Within a year 118 Canadian candidates had been selected and sent to England for RAF short-service commissions under the direct entry scheme. In addition, fifteen men were selected under the trained-in-Canada plan; of this number, nine proceeded to England.[34] In all there appear to have been between four and five hundred

Canadian permanent and short-service appointments by the end of the decade, and a similar number of Canadians who had enlisted as other ranks.[35]

The RAF, however, required trained pilots, not pilot trainees. As the British official history points out, RAF recruiting schemes in Britain were 'successful in attracting a large number of enthusiastic recruits,' but 'there were never enough aircraft and instructors' to train them.[36] If Canada trained the 120 candidates selected under the direct entry scheme before sending them to England, it would relieve the overburdened RAF training organization. In addition, excess training capacity in Canada could be used to train recruits sent out from Britain. Conducting RAF training in Canada held other attractions as well. The British had always viewed an FTS in Canada as a method of attracting more Canadians to the RAF. 'There is in Canada an excellent source of supply for short service officers for the R.A.F. of a type better, in my considered opinion, than we are recruiting today,' wrote Leckie in 1936, 'and the presence of an F.T.S. in their midst would crystallise interest in the R.A.F. and certainly produce excellent applicants if these are required.'[37]

An FTS might also help to break down Canadian reluctance to become involved in imperial defence. Overcoming such Canadian resistance was an important consideration behind the British government's decision to send an air mission to North America in May 1938. The mission, headed by a well-known industrialist, J.G. Weir, was to explore the possibilities of purchasing aircraft from American sources. Although the 'Air Ministry could not hope to make any useful purchases in Canada,'[38] the senior dominion was included on the air mission's itinerary for reasons that were later explained to his Cabinet by the British prime minister. 'If the only object were to get aircraft quicker, the money could be spent more effectively' at home; however, 'if Canada could become interested in the provision of aircraft to this country aloofness of that Dominion from Imperial defence and its dissociation from the problems of the United Kingdom might be reduced. It was not inconceivable that the whole attitude of Canada towards the defence of the Empire might be changed.'[39]

On 13 May 1938 the British government instructed the air mission, then in Canada, to discuss in addition the possibility of establishing one or more schools to train pilots for the RAF. Done at Air Ministry expense, training would 'conform with that now in force' in Great Britain, but it would be left completely in RCAF hands. Canadian pilots were at the heart of the proposal; if the scheme were accepted, it would replace both the direct entry and trained-in-Canada plans, the candidates from these programmes receiving their training at the proposed flying schools. If vacancies existed, British pilots would be trained as well.[40]

The matter was raised by the British high commissioner in two meetings with Mackenzie King on 16 May. Floud stated that the 'problem was really one of air congestion. England was a small country, thickly populated; the spaces available for training pilots comparatively few.'[41] Floud's (and the Air Ministry's) focus was on Canadian candidates, trained by the RCAF for overseas service with the RAF. The possibility of sending British recruits to train in Canadian schools was also raised, but not emphasized.[42] King's concern was

that the scheme would 'arouse criticism on the score that an effort was being made to create Imperial forces, and to bring about a condition whereby Canada would be committed to participation in a European conflict.'[43]

King refused to go along with the British training proposal in his first meeting with Floud. The second, with Weir present, simply aggravated him. Although King's own record of the talks contains two references to the British desire to have Canadian pilots trained in the proposed schools, he ignored this aspect when he presented the scheme to Cabinet later that afternoon, talking instead about the training of British pilots in Canada. More importantly, he misinterpreted the approach as a proposal for the establishment of a British-owned and British-controlled military installation in Canada. When Floud said that the British government was prepared to spend large sums of money and thus help Canada's industries and unemployed, King's impression seemed confirmed.

Politics – broad national concerns but also narrow partisanship – were uppermost in the prime minister's mind. In his conversations with Floud and Weir, King expressed his worry that the air training scheme 'would certainly force an issue in Canada at once which would disclose a wide division of opinion ... by, first of all, creating disunion in Canada, and secondly, prejudicing in advance the position that might be taken at a later time.'[44] His fears that the training scheme was an attempt to lure Canada into an imperial commitment were not eased by Weir's emphasis on the urgent need for additional training facilities, and the importance of preparing for a 'possible emergency ... some time ahead.' The 'value of any co-operation which Canada might be prepared to render when emergency arose would be seriously impaired by a refusal to co-operate now. It would, therefore, in effect be a commitment in a negative sense.'[45]

King's 'very unfavourable'[46] reaction to the air training proposal increased the importance that London placed on the purchase of aircraft in Canada. The dominions secretary informed the Cabinet that he 'laid stress on the real political value of the proposals ... He urged that the Mission must be purely technical in character and must avoid touching in any way on politics: otherwise the Prime Minister of Canada, who had already adopted an attitude of antagonism towards proposals for a Training Establishment in Canada, might easily turn against the proposal.'[47] The Air Ministry was particularly 'anxious lest political considerations ... may militate against formulation of satisfactory scheme for aircraft production in Canada.'[48] London was doubtless greatly relieved, therefore, to receive word from Floud that 'Political objection to flying school proposals have not prejudiced success of main object of Mission's visit.'[49] Writing to Floud on 20 May, H.F. Batterbee, the assistant undersecretary, explained the attitude of the Dominions Office. 'We could not help being afraid that the political reactions aroused by the flying school proposal might have the result of prejudicing to some extent the consideration of the aircraft proposal. I hope that the form of our telegrams made it clear that we only put up the former proposal because the Air Ministry wanted us to. We were quite clear from the start that the proposal was hopeless, but the Air Ministry were not to be prevented from

putting it forward.'[50] As a result of King's attitude, the British government 'hastily dropped all idea of training pilots for the RAF in Canada'[51] and concentrated its efforts on interesting Canada in imperial defence through British purchases from Canadian aircraft manufacturers.

In June 1938, former Conservative national leader Arthur Meighen began making embarrassing enquiries in the Senate. He repeatedly asked if the British had requested permission to set up, at their expense, a flying training school. King was clear in his own mind that no formal approach had been made – he had deliberately sought to keep the discussions tentative[52] – but when Raoul Dandurand, the Liberal leader in the Senate, said that no request had been made 'in any shape or form,' an admission had to be made that 'some informal discussions' had taken place.[53] Floud privately denounced King's 'dishonest wriggling,'[54] but the prime minister boasted to the Cabinet that he 'would ask for no better issue in a general election than one which would seek to have any branch of the British War Ministry undertake establishments in Canada which would be primarily for the purpose of including Canadians to take part in Imperial Wars.'[55]

Floud again spoke to King on 27 June. The British high commissioner attempted, for the second time in two months, to convey to him the essentials of the training proposal; namely, that Canadian and British flyers would be trained in Canadian estabishments. Once again, King misinterpreted the suggestion as entailing the training of British pilots only, but he now understood that the training would take place in Canadian schools.[56] King took this to be a shift in the British position, one that would allow him to steal a march on his critics. 'We will be able to work out,' he wrote in his diary, 'an establishment in connection with flying which will be all to the good so far as Canada's defence is concerned, and will help British defence, but will effectively safeguard against the Tory aim of an Empire control[led] from Britain.'[57] Cabinet had not yet been consulted, but King was prepared for Conservative leader R.B. Bennett when he rose in the House on 1 July to question again the Liberal stand on air training.[58] The prime minister began his remarks by emphasizing 'that in Canadian territory there could be no military establishments unless they were owned, maintained and controlled by the Canadian government responsible to the Canadian parliament and people.' King set out his government's willingness to co-operate in an Anglo-Canadian programme 'to give in our own estabishments the opportunity to British pilots to come over here and train ... controlled by our own Minister of National Defence who is responsible to this parliament.'[59]

King's offer, including the suggestion that a British officer be sent to Canada to discuss the question, was duly conveyed to London on 5 July 1938. The prime minister's words in the House of Commons were quoted: 'We are quite prepared in connection with our own establishments, to help in affording facilities to British pilots if that will be of service to them.'[60]

But immediately – and again – the issue became confused. On 7 July, in a letter to King, Floud referred vaguely to 'the possibility of working out a scheme for the provision of facilities in Canada for training candidates for the Air Force.' In the British House of Commons, on the same day, similar language was used

by the secretary of state for air, and again when Floud announced that Group Captain J.M. Robb, commandant of the RAF's Central Flying School, would be sent to Canada to discuss air training.[61]

The British had shifted their ground. The Treasury had raised a number of objections to the possibility of sending British pilots to train in Canada, not the least of which was 'the waste of time and money involved in sending pupils to Canada and bringing them back again.'[62] Robb's mandate was to ascertain if Ottawa were willing to give flying training to at least 135 Canadians (the total of the direct entry and trained-in-Canada schemes) and to enquire about 'additional capacity' up to four hundred. Britain was no longer interested in the possibility of using training facilities in Canada to train British recruits. King's offer of 1 July, however, was strictly 'for British flyers to come to Canada for training in Canadian schools.'[63]

When Skelton again made the terms of the offer clear to Floud in mid-August, the high commissioner argued that it was 'absurd for some hundreds of Canadians to go over to England to train and some hundreds of Englishmen [to] come over to Canada to train.' Although Floud's logic was undeniable, the Canadian government felt it essential to draw a distinction between sending untrained Canadians to the RAF while training Englishmen in Canada, as they proposed, and sending trained Canadians to the RAF, as the British preferred. It was important to the Canadian government that any agreement reached not be viewed as an imperial commitment. Skelton informed Floud that the British plans carried 'the implications of a continuous use of Canada in peace and in war as a basis of training for United Kingdom military forces.' The distinction was exceedingly fine, and Skelton's uncomfortable negotiating position was perhaps reflected in his discussion with the high commissioner when he stated categorically, and in disregard of the facts, that 'there never was the remotest suggestion in any of these conversations of anything other than British flyers being involved.'[64] According to the Canadian definition of their proposal, Canada would be providing limited selection and training assistance, but would not become an imperial training centre.[65]

This subtlety was lost on the Department of National Defence. On 19 July the senior air officer had proposed recruiting and training sufficient Canadians for an output of 300 graduates per year. During a six-month course, the recruits would be given elementary and intermediate flying training before proceeding to the RAF for advanced training. The British were to carry the major financial burden, such as operating Camp Borden.[66] Croil's plan dovetailed nicely with the thinking of Group Captain Robb and L.R. LaFlèche, deputy minister of national defence. The three men met in early August and submitted a revised programme covering three years, and now including all forms of training.[67] The minister of national defence approved the proposal but asked LaFlèche to show it to the prime minister. This LaFlèche did on 8 August.

King's hostility was clearly evident in Cabinet the following afternoon. 'All were impressed,' he told his diary, 'at change of nature of program as set forth by LaFlèche. – I had him come to Council with Skelton. It was clear as he talked that the plan was a *war plan* – to make sure of *a base for training in Canada*,

when war comes, – with certainty on part of Defence Department Canada wd. be in it – co-operating in defence of Empire. – I can agree to that – reserving to prlt. decision as to action to be taken, viz., to be in shape to co-operate, if we so decide – but quite different is the proposal to recruit Canadians meanwhile for service in the Br. Air Force in grounds, schools, etc., which will *duplicate* rather than expand our own. I gave LaFlèche as decision of Council to tell Captain Robb who has come from England that our proposal was to afford facilities for training *British* pilots – not recruiting Canadians for Br. service, and to outline what was desired within that compass.' King was outraged later that evening when he read in the *Ottawa Journal* a detailed account of Robb's mission 'as if the matter had been finally settled.' After a fitful night he decided 'that it was the Canadian Defence Dept. – not the Br. Air Ministry that was responsible for advocacy of recruiting Canadians here etc. ... I intend to go to the bottom of this. It is a very dangerous issue ...'

The prime minister now summoned the six members of his Cabinet who were in Ottawa to a meeting in his office, and there they met Croil, LaFlèche, and Robb. The meeting further convinced King that the Department of National Defence – now joined by the Air Ministry, the press, manufacturers, and others interested in contracts and 'imperialistic' programmes – was trying to exert undue pressure on the Cabinet. He claimed in his diary that there was general agreement on this point, and on the importance of following the 'Laurier naval policy in relation to air, of having an efficient service in Canada which, if Parliament so decided, could be made a part of one great service in time of war.'[68]

Robb redrafted and resubmitted the plan, which was also signed by Croil, in September. The new version differed in two major essentials from the original proposal.[69] Nothing was said this time about finances. Robb had been instructed to seek an equal division of costs, but he found that National Defence was making its preparations on the assumption that virtually the whole cost would be borne by the British. Nothing, furthermore, was specifically said about the source of the candidates beyond the 135 Canadians previously agreed to. When King asked how the British expected to make up the balance between the existing schemes and the 300 trainees contemplated in the new one, Floud noted 'his own impression' that all 300 ought, if possible, to come from Canada. The high commissioner's thinking clearly reflected the Treasury view which had taken firm hold of British policy. London was not interested in training British pilots in Canada. What was wanted was 'ready-trained Canadian pilots' for the RAF.[70] 'It was plain,' wrote Skelton, 'that a scheme such as was suggested was purely and simply a recruiting scheme ...'[71] Loring Christie worried that the number of pilots to be trained was so much greater than the normal annual Canadian training programme (of fifty to seventy) that national priorities would be overshadowed. Canadian training might be seen as incidental or supplementary to, or simply the result of, the British scheme.[72]

The Canadian air staff, too, noted that the Robb plan would imply the immediate loss of specially qualified individuals to the training programme, putting back RCAF development for about a year. The advantages, however,

outweighed the disadvantages. The British plan would bring into existence, in advance of Canadian requirements, training facilities ready to meet war needs in the event of emergency. There would be a more rapid development of RCAF stations. The plan would ultimately provide a reserve of trained pilots and of instructional and maintenance staff. The aircraft requirements would result in increased Canadian manufacturing capacity, and advanced training aircraft would have military value in an emergency. For greatest efficiency, the air staff proposed to combine RAF and RCAF training. About half the trainees would be RCAF, illustrating that the Canadian service was 'an equal partner in the training scheme, and in no way impelled by the Royal Air Force.'[73]

The air staff's memorandum provided the underlying thrust of a proposal put forward by the Department of National Defence on 5 November 1938. In this plan, Canada would provide the aerodromes and buildings, Britain the initial supply of aircraft, engines, and spares. Remaining costs would be divided in proportion to the number of candidates trained for each service.[74] The British fretted over the costs, but thought that they were not well placed to object: 'We want the ready-trained Canadian pilots; Canada can sit back and demand her price.' The British took some heart that Mackenzie King 'made no suggestion that the training of the existing 135 pupils in Canada would be finally objected to,' and felt that Ottawa could not reject a scheme that was in both Britain's and Canada's interest. They had had sufficient experience in dealing with the Canadian prime minister, however, to realize that 'he would much prefer to adopt no scheme at all.'[75]

The British were themselves unwilling to compromise by agreeing to a scheme that would send British pilots to train in Canada. Their attitude in the negotiations proved disconcerting even to some of their own officials. 'I confess,' wrote a member of the Dominions Office, 'to being perplexed at the way in which ... the whole scheme for establishing flying training schools in Canada has been radically altered backwards and forwards from time to time. I think it would be a fair general criticism to make at the outset if I said that these radical alterations appear to have proceeded from reasons of internal United Kingdom policy, rather than from any developments (important though the latter have been from time to time) which have occurred in Canada.'[76] From this perspective, the assertion of the British official history that the delay in reaching an agreement 'was in no way the fault of the Air Ministry or, indeed, of anyone else in Britain' but 'arose from the political situation in Canada'[77] seems unfair and incorrect. The combination of British intransigence over the source of pilots and King's political concerns cost the two countries any chance they may have had to implement a peacetime agreement that would have allowed both British and Canadian flyers to train in Canada for the RAF.

The November proposal, and a British version submitted on 9 December,[78] were still unacceptable to Mackenzie King. In the Cabinet discussion of the British offer on 15 December his opposition was clear: 'Discussed most of the time new proposal from the Air Ministry in England ... It was not for a British school in Canada, nor was it for training of British pilots in Canada, but it was for recruiting and training of Canadians for 5 years in the Imperial service. This

would be certain to provoke a discussion on Canada contributing to forces overseas for war purposes, as contrary to basic principle of Canada's autonomy and the right to reach her own decision on peace and war.' As an alternative, the prime minister advocated an enlargement of the RCAF, 'reserving, of course, the right to Englishmen to come and be trained here, but making the point that it was a supply of trained men that was essential and that we would be co-operating with both Britain and the U.S. in helping to show the strength of the nations that would be against aggressors.'[79]

King's diary entry for that evening reflected his disillusionment with the whole project. 'I must confess,' he wrote, 'I had been deeply disappointed in the manner in which the British Government has shifted its ground, from time to time, with evident design throughout. First a few men have been allowed to go to England seemingly to help co-ordinating services. This has been made a basis for extension of numbers for purposes of enlistment and arrangement to examine men in advance of leaving has been construed as recruiting already commenced ...' The next day, the prime minister recorded in his diary: 'All were agreed we could not possibly undertake to recruit air pilots for Great Britain, but would afford facilities for air pilots to be trained in Canada, meeting all expenses ourselves.'[80]

King formally rejected the British proposal on the last day of 1938. In doing so, he repeated his offer to train pilots from the United Kingdom in Canadian establishments. On 10 January 1939 the new high commissioner, Sir Gerald Campbell, wrote to King to express his government's 'regret that the proposals ... are unacceptable to the Canadian Government.' He also acknowledged the renewed offer with the assurance that the United Kingdom authorities would 'be happy to avail themselves of it.'[81]

Within the Air Ministry the idea of sending Canadian pilots to Britain for training and British pilots to Canada was now thought ridiculous. The seriousness of the international situation, however, precluded further argument. Although unhappy with the 'excessively high' cost of Canadian training, substantially more per pupil than training in Britain, the Air Ministry bowed to Dominions Office pressure and concluded an agreement. By late April the minister of national defence was able to announce that a number of British pilots, not to exceed fifty in any year, would be given intermediate and advanced stages of training under the auspices of the Department of National Defence. The existing Anglo-Canadian air training agreements remained in effect. The Canadian government would purchase the initial aircraft for the training scheme; replacement aircraft would be charged for in an amount paid by the British per pupil. The RCAF would use British aircraft types wherever possible, though no specific commitments were given.[82]

The first batch of pilots was scheduled to arrive in Canada by mid-September 1939. They never arrived. The first days of the month brought the European war that Mackenzie King had been dreading.

In the last few days before the outbreak of war, the British contacted RCAF Group Captain A.E. Godfrey in London (in the absence of Heakes), raising the issue of increased training capacity in Canada. Noting the First World War

experience, the Air Ministry suggested that Canada could begin with four training schools, each of which would gradually grow until it produced 468 pupils a year. Godfrey, speaking confidentially, felt that Canada would be 'quite willing to concentrate on training rather than forming additional operational units.'[83]

The British made a formal approach along these lines on 6 September 1939, midway through the week which separated the British and Canadian declarations of war on Germany. Prime Minister Neville Chamberlain telegraphed his appreciation for Mackenzie King's offer of 'action in the Western Atlantic region, particularly in Newfoundland and the West Indies,' but suggested other 'immediate steps': 'provision of naval vessels and facilities and of air force personnel would be of most assistance, and in particular at present time supply of any pilots and aircraft crews available is a capital requirement.' Because of the expected high level of casualties in intensive air operations, Canada could best assist by concentrating on the individual training and dispatching of pilots, observers, and especially air gunners and radio operators, rather than by placing an emphasis on the formation and training of complete air units for sending to Europe with a ground-based expeditionary force. Only when 'sufficient officers and personnel were available in England and France' should the aim become the formation of an RCAF 'contingent.' If such reasoning was accepted, steps should immediately be taken to increase the yearly output of pilots to 2000, to enlist skilled mechanics both for Canadian and RAF purposes, to train as many observers and air gunners as possible, and, perhaps, at a later stage and 'if possible,' to transfer at least four RAF flying schools to Canada.[84]

King's response was an assurance of the immediate, rapid expansion of training, and an offer to dispatch a number of partially trained individuals to the RAF. Coupled to this reply on 12 September was the stated desire that 'Canadian Air Force units' be formed overseas when sufficient trained Canadians were available, and the warning that personnel must be available for transfer back to the RCAF 'if the Canadian Government should later decide upon the organization of distinctive Canadian air units for service overseas.'[85]

By then, Godfrey and Heakes had met with Portal, the British air member for personnel, and other officials, and had been told that the RAF actually foresaw a requirement for three or four times the number of trained aircrew then being produced. A training organization of this size could not be accommodated in the United Kingdom, and the dominions would be asked for major assistance. Portal emphasized the importance of concentrating resources on training, though there was 'no reason at all' why Canadian units should not eventually be sent to England. The Air Ministry conceded that the RCAF would control the organization of the proposed schools. Aircraft would mainly come from Canada and the United States, although the RAF would be prepared to provide some of the equipment. The desirability was underlined of sending a strong mission 'to convince the Canadians of the necessity of an organization on the scale proposed.'[86]

This information led Croil to reconsider his earlier recommendations. Warned that British pilot requests would soon rise to 8000 annually, and armed with

British advice that Canada could best help by the provision of trained aircrew, he reasoned that the RCAF could only meet these objectives if all available personnel were absorbed into the training structure rather than going overseas. Accordingly, in the middle of the month he recommended that training goals be initially set at 1000 graduates per month, with consideration given to future expansion.[87]

In London, meanwhile, a plan of 'impressive magnitude' was being formulated which would dwarf Croil's numbers. On 13 September Vincent Massey, the Canadian high commissioner, Stanley Bruce, his Australian counterpart, Godfrey, and two Australian officers discussed 'the disparity in force & other gloomy features' of Britain's predicament. The group's disquiet was conveyed, later that same day, to the dominions secretary, Anthony Eden, and other British Cabinet members and officials. Massey claims in his memoirs to have decided after the meeting 'that Canada might be able to make a decisive contribution to the common war effort by training Commonwealth airmen,' and to have consulted Bruce, 'who enthusiastically agreed.' Bruce remembered it quite differently, claiming that the idea was wholly his. The contemporary Dominions Office record is probably closest to the truth. It shows that Massey and Bruce jointly put the proposal to a high commissioners' meeting on 16 September, suggesting that 'consideration should be given 'to a scheme whereby Canadian, Australian, and New Zealand air forces should be trained in Canada on 'planes to be specifically built in Canada or the U.S.'[88] An apparently new ingredient had been added to existing Air Ministry training proposals: the creation of a large-scale Commonwealth organization in Canada through which trainees from the several dominions would be channelled for overseas service.

Massey was continually consulted as the plan took shape. He helped to sponsor the plan in Whitehall and to sell it to a notoriously circumspect Ottawa. The high commissioners were shown the telegram which would put the plan to the dominions. Massey edited it and added a personal passage (ostensibly from Chamberlain) designed to attract his prime minister.[89] Legitimate questions might be raised about the propriety of Massey's role in underwriting 'a plan which was likely to have a major effect upon the structure and balance of the Canadian war effort without telling his government what he was doing.'[90] Massey, however, pointed proudly in his diary to the 'important job' he and Bruce had done. What would King say, the Canadian high commissioner wrote, 'if he knew I helped to write what he receives!'[91]

Mackenzie King, as he quickly saw, had been handed a great political prize: 'a form of military effort that likely would not lead to enormous casualties, a positive inducement for French Canada to admire the government's wise management of affairs.'[92] King privately complained that the proposal showed 'how quite unprepared the British ... were in their plans that until now they have not been able to tell us definitely what really is the best of all plans, and which would have saved us having anything to do with an expeditionary force at the start.'[93] To the British he gave immediate approval in principle, adding that his government 'fully' agreed 'that Canadian co-operation in this field would be particularly appropriate and probably the most effective in the military sphere which Canada could furnish.' The prime minister added, however, that Canada

lacked sufficient aircraft and instructors for an expanded air training programme, and also noted that the matter of dividing the costs remained to be negotiated. King assured the British that Canada would be pleased to play host to a conference to complete arrangements.[94]

Within the previous two weeks the government had already offered to provide economic assistance to Britain as well as recruit the 1st Canadian Division; the Cabinet was unsure whether an air training programme was meant to replace or supplement these earlier commitments. As the minister of finance, Colonel J.L. Ralston, remarked, 'the greatly increased emphasis upon the air arm, evident from Mr. Chamberlain's cable, and the part Canada might be called upon to play in that sphere, might result in considerable modifications of the Canadian war programme in other respects.'[95] O.D. Skelton warned the prime minister of the '*Money factor*. What would be the total training cost? Cost of providing aerodromes and ground equipment? Cost of training planes? Cost of maintenance and instruction? etc. ... if Britain needs Canadian credits for buying wheat, she will ask for credits for her air expenditures here ...' Beyond that, the scheme's long-term implications were worrying: 'it is not merely an air training scheme. It is an expeditionary air force scheme on a colossal scale. It would be difficult to train tens of thousands of Canadians as pilots and gunners, etc, and then restrict ourselves to sending over a dozen squadrons. Australia is sending 6 squadrons in three months. We would be faced with trying to maintain in France a tremendous Canadian Air Force. What would be the cost of this?'[96]

When the British asked the Canadian government to approve a draft public statement on the air training plan, there were clear signs that the two countries might approach the forthcoming planning conference from quite different perspectives. King cabled Chamberlain that the Emergency Council had three reservations.[97] First of all, the British note implied that Canada and the other dominions had originated the air training idea. King insisted that the announcement make plain that the scheme was a British not a Canadian initiative. Second, the statement 'should also emphasize the fact that this activity constitutes ... the most essential and effective form of military co-operation open to Canada.' Third, the draft left an impression that the plan was all but complete. The Canadian government wanted it made known that no details had been settled; everything, especially the plan's scale and financing, was open for discussion.[98] For their part, the British were wary of King's motives and suspected that he was attempting to manoeuvre them into accepting the air training scheme as Canada's major contribution to the war, even though 'there was in Canada a considerable feeling in favour of an Expeditionary Force.' Winston Churchill, the First Lord of the Admiralty, told the Cabinet that he 'strongly deprecated that we should lend ourselves to a statement which might encourage the Canadians to believe that we should be content with little more than a contribution of Air forces [sic].'[99] The proposed British statement that Canada's involvement in the air training scheme would be 'a contribution of a high order in line with that which she is making in all phases of war effort' was unacceptable to the Canadian government. Ottawa's wording that the scheme would 'constitute the most essential and decisive effort that Canada could put forward in the field of

military co-operation' was equally unacceptable to London.[100] Although willing to meet Canada's other concerns, the British Cabinet was prepared to omit 'the whole of the relevant section' from the statement rather than concede the second point to King.[101] After some hurried negotiation, the final wording, that 'this co-operative effort may ... prove to be of the most essential and decisive character,' was sufficiently vague to avoid compromising either government's position.[102]

While there was an obvious political dimension to the priorities question, it was inseparable from finances. The Canadian government had little idea of the costs of mobilizing for war. There were strict limits to what was thought feasible or possible; the era of deficit financing still lay ahead. The week before Chamberlain's cable arrived, the governor of the Bank of Canada, Graham Towers, had advised the Cabinet that there were finite limits to Canada's financial capabilities, and only $500 million could be allocated for war expenditures. Any more would risk failure and the breakdown of the war effort.[103]

In many key areas, moreover, the national interests of Great Britain and Canada diverged. For instance, while the British began restricting Canadian imports and bargaining hard for cheaper wheat, thus limiting Canada's ability to pay for its own war effort, they were also asking for financial credits to conserve dollar reserves so they might purchase military equipment in the United States. This made British sense, but it took little account of Canada's needs. As Anthony Eden told his Cabinet colleagues: 'The Canadians will obviously feel that it is wrong that we should be pressing them to supply and even finance purchases in Canada essential to *our* interests while we are taking unilateral action which might damage *their* essential interests.'[104]

The outstanding economic problems were discussed on a number of fronts. The British sent a mission to Canada and the United States to purchase war supplies, and Canada dispatched a senior Cabinet representative, T.A. Crerar, who would be joined by Graham Towers, to London. But the separate talks were bound to be protracted, and it was to prove difficult to weave their common financial threads into mutually acceptable general policies, or to co-ordinate them with the air training talks about to get under way.

The British government appointed Lord Riverdale, a prominent industrialist 'of great experience in business negotiations in Canada,'[105] to head the United Kingdom Air Training Mission which sailed from Liverpool on 7 October. Accompanying Riverdale were Air Vice-Marshal Sir Christopher Courtney and F.T. Hearle, the managing director of the de Havilland Aircraft Company, along with a number of other officials and advisers. Captain Harold Balfour, the parliamentary undersecretary for air, joined the mission later, as did Air Chief Marshal Sir Robert Brooke-Popham. Sir Gerald Campbell at the British High Commission lent his assistance throughout the negotiations.

While en route from Britain, Riverdale's team refined the details of their proposal. The scope was immense – 20,000 pilots and 30,000 other aircrew annually. Since Britain could train less than half, the rest would have to come from the dominions. Canada would provide 48 per cent of these trainees,

Australia 40 per cent, and New Zealand 12 per cent. Each dominion would furnish its own elementary flying training facilities from which the graduates would move on to Canadian-based schools for advanced and specialist instruction. On this projection Canada would have to form seventy-two aircrew schools of all types, as well as a variety of support and maintenance units: repair and recruit depots; aircraft storage facilities; and schools of technical training, aeronautical engineering, equipment, accountancy, and administration.[106]

The scope of the British proposal was, recalled Air Commodore Stedman, the key RCAF figure in the negotiations, 'so far ahead of anything that we had thought of that everyone who had not heard details before was quite taken aback at its magnitude.'[107] The RCAF staff, advised by Riverdale's technical advisers, had 'a very hectic time'[108] putting together specific estimates on the physical plant, equipment, and instructional resources that the plan required; $900 million over a three-year period, they reckoned. Riverdale then took this figure as the basis on which to determine the sharing of costs. Earlier, the Air Ministry had informed him that it would be spending $140 million in Britain on aircraft and equipment for the programme's immediate needs and an additional $81 million for three years' spares and replacements. Riverdale simply assumed the $221 million to be Britain's contribution, allotted Canada half the balance (about $340 million), leaving Australia and New Zealand to share the rest.[109]

In the days before formal negotiations began, Riverdale's mission was restricted to exploring ways of implementing the plan with lower-level officials and the RCAF staff. The prime minister insisted that his ministers not meet with the mission until its formal presentation to the Cabinet, thus emphasizing that initiative was being taken by the British.[110] Unfortunately, this prevented Riverdale from taking 'preliminary soundings' by which he might judge whether his plan was 'likely to be acceptable' to the Canadians.[111] He did speak to Sir Gerald Campbell, who immediately became alarmed at the demands about to be made of Canada. The astonishing costs of the proposal, the high commissioner informed the Dominions Office, 'will amount to about twice the amount provided to be raised by taxation in Canada's war budget for the first year of the war.'[112] Equally disquieting, Campbell warned, the Canadian government was becoming increasingly agitated by London's failure to settle the accumulating financial and economic irritants which were threatening to damage Anglo-Canadian relations.

Canada's most serious complaint concerned wheat. The British understandably wished to keep the price down, while the Canadians wanted much higher rates per bushel in order to finance war expenditures, including those which would be incurred by air training. In the Canadian view, Campbell reported, air training and wheat were inseparable, 'intimately related in their mutual bearing on the question of what economic and financial effort Canada can actually make.'[113] Significantly, when Campbell had first broached the subject of air training with Mackenzie King, 'it was the first thing the Prime Minister brought up in connection with the financial side of the training of pilots scheme.' Wheat was 'acting as a poisonous irritant,' and hard bargaining gave the Canadians the impression that 'we on our side are "chiselling."'[114] This was

aggravated by the condescending attitude of some British officials who 'believe that Canada will submit to any demands made of her and to any treatment accorded to her in return without any risk of her good will being forfeited.'[115] The British War Cabinet and Treasury officials acknowledged this problem, but faced financial difficulties of their own.[116] Any expenditures in Canada had to be extracted from Britain's limited treasury, much of which was committed to buying war material in the United States. Therefore, it was in the British Cabinet's interest to persuade Canada to pick up the bulk of the air training bill. 'Lord Riverdale, who knew Canada and the Canadians well could be relied upon to present the matter in the most satisfactory way.' He was told to go ahead.[117]

Riverdale therefore had no specific instructions about how best to proceed. He was given 'only an indication of principles,' and apparently even these were not set out explicitly.[118] The British seem to have assumed an ideal scheme as one which trained Canadian, Australian, and New Zealand students in an organization directed by the RAF and primarily paid for by the dominions. Graduates would then serve in RAF squadrons, perhaps with national identity patches on their shoulders. Riverdale quickly concluded on arriving in Ottawa that 'the Royal Canadian Air Force cannot really organise and control a training scheme of this magnitude.'[119] Consequently, while it would be necessary 'to maintain the Canadian façade ... the scheme would probably have to be run largely by Royal Air Force personnel sent out from the United Kingdom.'[120] This was not a good beginning.

Although much depended on Riverdale's success at reconciling contradictory interests, he lacked a shrewd appreciation of Canadian attitudes. To begin with, he gave the impression that all but minor details had already been settled. He compounded his error by talking about the scheme with the press when he arrived in Canada, an action the Canadian government viewed as 'indiscreet.'[121] Then, when he first met Mackenzie King, Riverdale referred to the proposal as 'your scheme.' Outwardly King was diplomatic, simply pointing out that the scheme was Britain's, not his. Privately he was scathing, objecting to the 'sort of railroading taking for granted style which Riverdale adopted ... It is amazing how these people have come out from the Old Country and seem to think that all they have to do is to tell us what is to be done. No wonder they get the backs of people up on this side.'[122]

When Riverdale and Balfour met with the Canadian Cabinet just before noon on 31 October to present the British air training proposal, it was immediately evident that the two sides had such different views of the scheme that there was bound to be misunderstanding. Emphasizing the huge rearmament burden that Britain had already undertaken, the two British negotiators proposed that Canada finance about 40 per cent of the plan as well as find the majority of trainees. For their part the United Kingdom would be pleased to supply 'without charge ... a contribution in kind towards the cost,' aircraft, engines, and spares – valued at $140 million. The Canadian record of the meeting indicates that Riverdale referred to this equipment as Britain's 'free contribution.'[123]

King was as much irritated by Riverdale's 'airy' manner as he and his colleagues were startled by the size and suggested distribution of the costs. King

expected to negotiate as an equal; instead, the British mission seemed to want 'only to tell us what we would be expected to do.' It was, 'in reality, a recruiting scheme for the British Air Force rather than any genuine attempt for any co-operation.'[124] Ralston told the British bluntly that Canada could not come within 'shooting distance' of the 40 per cent – $374 million – and reminded the mission that the programme had to be considered in the context of Canada's other financial commitments. Canada would – had to – look to its own interests.[125]

The discussions, which continued at the working level, were broadened with the arrival of the Australian and New Zealand delegations early in November. Riverdale soon found that they too found his initial proposal wanting. Both judged that it would be more efficient and economical for them to conduct more of their own training at home, and they objected to the numbers of recruits they were expected to raise. While the Australians referred the question to their government, the New Zealanders told Riverdale they could raise no more than 3350 for all categories of air crews annually, just over half the numbers envisaged by the British.[126] The New Zealanders and Australians had been upset by what they regarded as their relegation to second-class status: waiting in ante-rooms until the British and Canadians had finished talking. Facing their own dollar crisis, they also objected to the cost-sharing formula proposed by Canada on the grounds that it was receiving unfair economic advantages from having the bulk of the training plan located there. They therefore proposed that the dominions find suitable recruits on a scale proportional to their populations, a ratio they reckoned at 57 per cent (Canada), 35 per cent (Australia), 8 per cent (New Zealand). For Australia this meant 26,000 pilots and aircrew members over three years, seven-ninths of which they would train at home. The Australians were not prepared to bargain; if their figures were found unacceptable they would then carry out all their air training at home.[127]

The RCAF staff reworked its sums for a third time. Taking into account the shortfall of Australian trainees and cash, Canada would have to provide fewer training facilities but more trainees. The revised total figure was $607 million. Of this total, $68 million was for initial and elementary flying training in Canada to which Australia and New Zealand did not contribute. The United Kingdom's donation of aircraft and equipment amounted to $185 million (a proportion of its original contribution now being directed to Australia), of which $1.9 million was for Canadian elementary training. The remainder, $356 million, was to be divided between Canada, Australia, and New Zealand on the basis of the number of pupils each was expected to contribute: 80.64, 11.28, and 8.08 per cent, respectively.[128]

The negotiations made progress during the last two weeks of November. King's minister of national defence, Norman Rogers, and Balfour reached agreement on the structure and administration of the air training organization, and Ralston informed the Emergency Council on 27 November that he was prepared to accept the financial terms of the scheme. Canada's share was more than originally proposed, but the Cabinet did not complain. By this time they had decided to place an upper limit of $237 million for all Canadian military,

financial, and other assistance to Britain in the first year of the war, and intended to deduct the first year's air training expenditure from it. The latter was estimated at $46 million but the amount mattered little; it was up to the British to decide how they wanted the money spent.[129]

The scheduled departure of the Australians and New Zealanders at the end of November introduced an element of urgency into the bargaining, all parties thinking it desirable to issue a joint public statement while all the negotiators were still in Ottawa. The British suggested initialling a draft agreement, while they and the Canadians exchanged letters reserving any disputed points for further discussion. Mackenzie King was unimpressed when Sir Gerald Campbell brought him this message on a Saturday morning at his Kingsmere summer home. The prime minister pointed out that there never had been any question about Canada's agreeing to the air training programme: his government 'had accepted the principle of a training agreement before the Missions had left for Canada; that the whole purpose of their being here was the working out of the terms.' Essential to the terms were a comprehensive settlement on all the outstanding economic issues, and a frank statement that the British government gave air training the highest priority among Canada's contributions to the war effort.[130]

The Cabinet's reasons were sound enough. It was necessary to know Britain's priorities in order to allocate Canada's limited resources rationally. There was also a political dimension which the Cabinet wished to contain by carefully avoiding 'any suggestion that [the agreement] had been extracted from the United Kingdom by the Canadian government ...'[131] Otherwise, presumably, those who attacked the government's war policies as unenthusiastic and hesitant would be able to charge that the Liberals were merely trying to substitute the air training programme for other forms of assistance, notably an expeditionary force.

The British chancellor of the exchequer continued to grumble over the problem of British financial credits, and especially at 'King's attempt to tie up the whole question of Canada's contribution with that of a satisfactory price for Canadian wheat,' which 'would mean a steep rise in the cost of living in this country.'[132] The British War Cabinet was wary of the political implications of King's 'troublesome' insistence that the matter of priorities be clarified, and the air minister, Kingsley Wood, suggested that Britain should accede to Canadian wishes because the Cabinet had already agreed that air training must be granted a high priority. Anthony Eden, the dominions secretary, thought it necessary to make a clear distinction between two aspects of the Canadian demands: that of Canada setting its own war priorities, which was entirely its own concern, and King's attempt 'to induce us to give countenance' to whatever priority his government decided. Eden advised that 'we should probably have to take a firm line. The matter was purely a domestic one, which Mr. Mackenzie King must settle on his own responsibility without involving the United Kingdom Government.'[133] After talking with O.D. Skelton a few days later, Campbell reported he had gained the 'clear impression that the Canadian Government intend to avail themselves of the admission that the United Kingdom

Government agree that the Empire training scheme is Canada's main war effort as an excuse for refraining, at any rate in the near future, from despatching [a] second division overseas.'[134] The British ruled in favour of caution: 'The general view of the War Cabinet was that the right way of dealing with this point was to refer to Mr. Mackenzie King's request for an assurance that the Canadian Government's views as to preference of effort was primarily for themselves to decide, and that we would accept their decision in that spirit; to say that we were prepared to give this assurance, as it was for Canada to decide on the priority of her effort, and we should not think of interfering with Canada's opinion.'[135]

Chamberlain's cable to King embodying these sentiments was suitably vague. He suggested that wheat prices and other broad economic issues should be put to one side. 'These we hope to bring to a mutually satisfactory conclusion as soon as possible after Mr. Graham Towers has joined Mr. Crerar here.' As to the priority to be accorded to the air training scheme, the British prime minister assured King that Canadian participation on the full scale proposed was of the first importance, but he declined to say so publicly. Britain, he emphasized, was reluctant to involve itself in the dominion's domestic affairs. Such a declaration, moreover, would cause difficulty with the French, who were pressing for an expansion of the British and Commonwealth land forces to support France's position in northwest Europe.[136]

King evidently accepted Chamberlain's assurance on the wider economic issues. The Canadian prime minister did not raise the matter during a meeting on 27 November of the Emergency Council, which had been called to consider the British request that a draft agreement be initialled before the imminent departure of the Australians and New Zealanders. King, however, refused to do so until the priority question had been settled. As he explained the following day in a cable to Chamberlain, there appeared to be 'some misunderstanding' of the Canadian position. Canada had responded hastily to British requests for assistance, the prime minister noted, and while these initial programmes were just beginning to be implemented the air training proposal had arrived. The plan appealed to the Canadian government but it had to be placed in the broader context of the country's entire war effort. Although Canada would unhesitatingly determine its own policies, 'We also believe, however, that it is essential to consult with our associates in the conflict, and it was for this purpose that from the outset we requested the opinion of the United Kingdom as to what would be the most effective form our effort could take, and as far as conditions permitted, we have adopted the measures proposed.' This was why, King continued, his government deemed it necessary for the British 'to have it made known that considering present and future requirements they felt that participation in the Air Training Scheme would provide more effective assistance than any other form of co-operation which Canada could give.'[137]

Whether persuaded by the logic of King's case or worn down by diplomatic attrition, the British finally gave way. On 1 December Chamberlain informed King that he could, when announcing the agreement, state:

> The United Kingdom Government have informed us that, considering present and

future requirements, they feel that participation in the Air Training Scheme would provide for more effective assistance towards our ultimate victory than any other form of cooperation which Canada can give. At the same time they would wish it to be clearly understood that they would welcome no less heartily the presence of Canadian land forces in the theatre of war.

Chamberlain accepted the Canadian prime minister's addition to the last sentence of the words 'at the earliest possible moment' to emphasize timeliness rather than large numbers of troops. Thus amended, King later used the British draft in a broadcast proclaiming the conclusion of the air training agreement.[138]

The essential features of the scheme had in fact been incorporated in the draft agreement that Australia and New Zealand – but not Canada – had initialled on 28 November. This called for the monthly production in Canada (when the programme was in full operation) of 1464 trained aircrew. Canada, Australia, and New Zealand would share common expenses in the ratio 80.64: 11.28: 8.08. Separate clauses arranged for aircraft, instructors, pay and allowances, and sundry administrative details. The RCAF would command and control the programme, with assistance from the RAF. The RCAF was also entitled to fill vacancies in its home defence squadrons with programme graduates up to agreed limits. Other graduates, 'for service with or in conjunction with the Royal Air Force,' would be paid and maintained by Britain, but the dominions were left free to supplement their pay at their own expense.[139]

The protracted negotiations thus far had, understandably, been principally concerned with the air training structure to be built in Canada. Less attention was given to the disposition of the programme's graduates once they were trained; here, as elsewhere, contradictory British and Canadian assumptions led to misunderstanding. Here, also, an incomplete documentary record permits only cautious interpretation, particularly because neither the British nor Canadian principals were entirely consistent in defining their objectives. It is possible, nevertheless, to sketch an outline of the discussions which attempted to determine how air training plan graduates would be committed to operational squadrons when they were judged ready.

It seems likely that the First World War RFC/RAF Canada training precedent was never far from the minds of Air Ministry officials in 1939. Centralizing command and control of all Commonwealth aerial resources in the RAF, by incorporating air training plan graduates as individuals into RAF squadrons, was in purely military terms probably the most convenient, efficient, and economical way to build a large air force. Riverdale thought so; he understood his 'instructions were to endeavour to arrange that they [graduates] should be enlisted in the Royal Air Force.'[140] His mandate was sufficiently broad to permit such an interpretation, but he was perhaps unaware that Air Ministry officials earlier had acknowledged that the dominions would form their own air units in the United Kingdom. Moreover, in his cable of 26 September, Chamberlain had assured King that the scheme 'of course contemplated that the first call on Dominion personnel who had received their training in schools under scheme would be for such air force units of Dominions as their participating Dominion Governments

might be prepared to provide and maintain.'[141] The British view suggested that dominion graduates would be posted first to such operational units as their countries were willing to pay for, while the rest went to the RAF. But nothing was settled. As one Air Ministry official remarked, 'the number of operational units to be provided and maintained in the theatre of war by each Dominion out of the pooled training resources would be a matter for discussion.'[142]

It seems doubtful that British officials fully appreciated the desire of Canada to identify its overseas air forces as a national service. Even one so close to the scene as the British high commissioner had difficulty acknowledging national sensitivities. 'All other things being equal, no doubt he [the Canadian] would prefer to be brigaded with his fellow Canadians,' Campbell reported, but it was not vital. 'The average Canadian well remembers the exploits of Canadian airmen in the last war. He knows that they did not suffer from serving in the Royal Air Force. He would undoubtedly say get me to the Front, put me in a machine, and send me up against the enemy: that is all I need to show the world of my Canadian identity.'[143]

Many young Canadians might have agreed with him, but there was little likelihood in 1939 of following the First World War precedent. The chief of the air staff reminded the members of the Emergency Council early in November that 'the end of the last war had seen the beginning of a distinctively Canadian Air Force, in answer to public demand,' and advised that RCAF units should be placed in the field.[144] He pressed this point in a memorandum to the minister two weeks later:

> It is considered essential that the R.C.A.F. should participate in overseas war activities and not be restricted entirely to Home Defence and training activities for the following reasons:
>
> (a) It would be detrimental to Canadian prestige as a nation to restrict its official air effort to Home Defence and Training.
> (b) The Training Scheme will prepare Canadians for combatant duties in the air but if Canada has no squadrons overseas, the work of the individuals will be merged in the R.A.F. We have every reason to expect that Canadians will do well in the air. If they can serve in Canadian squadrons they will bring credit to Canada as a nation, and build up tradition for the R.C.A.F. and their squadrons.
> (c) The Training Scheme involves the employment of 26,000 Canadians, on training work in Canada. This is not in keeping with the temperament of Canadians who prefer to be at the front and they would be dissatisfied unless some provision is made for them to have a chance of getting overseas.[145]

The prime minister had earlier expressed similar views,[146] but the magnitude of the air training scheme overtook events. Once it was functioning there would be no shortage of Canadian aircrew, but maintaining an overseas air force sufficiently large to absorb them all clearly would be prohibitively expensive. Moreover, aircrews accounted for only a small percentage of a unit's establishment, and RCAF groundcrew would be fully committed to air training in Canada. Croil suggested two alternatives:

(a) R.C.A.F. squadrons overseas in which the flying personnel would be Canadian but the ground personnel R.A.F.
(b) R.C.A.F. formations and units overseas in which all personnel would be R.C.A.F., the administrative and ground personnel being released from Training Scheme duties in Canada by the exchange of R.A.F. personnel who have already had overseas service.[147]

But could mixed squadrons of RCAF air and RAF ground crews properly be called Canadian, or would Canada, in Chamberlain's words, 'provide and maintain' them? The demands of finances and national identification pulled in opposite directions, Skelton pointed out. There would be, he noted, 'real difficulty in insisting on the one hand on our right to organize trainees in Royal Canadian Air Force units and on the other on the United Kingdom meeting the costs of the maintenance.' Further, the ambiguity of Canada's interests posed 'some danger of sliding into a position where we would have no answer either to the British Government or to some vociferous elements in the Canadian public if it were suggested that if we call the tune we should pay the Piper.' The piper's fee would be monumental. A projected imperial air force of 196 squadrons would cost some £600 million annually, with Canada's share amounting to about £170 million or $750 million.[148]

Having agreed to provide the major share of air training costs, the possibility now loomed that Canada would have to finance a continually expanding overseas air force in order to absorb its aircrew graduates. The dilemma thus posed, as will be seen, bedevilled attempts throughout the war to formulate a comprehensive Canadian air policy. For the present, Riverdale and his mission embarked on another round of negotiations with the Cabinet. Their starting-point was article 15 of the draft agreement, which was concerned with the identification and national affiliation of pilots and air crews proceeding overseas. 'The United Kingdom Government undertakes that pupils of Canada, Australia and New Zealand shall, after training is completed, be identified with their respective Dominions, either by the method of organizing Dominion Units and formations or in some other way, such methods to be agreed upon with the respective Dominion Governments concerned. The United Kingdom Government will initiate inter-governmental discussions to this end.'

This left open a free range of possibilities – from allowing individual Canadians in RAF units to wear 'Canada' shoulder patches to having Canada form its own squadrons, wings, groups, or even its own autonomous air force. More specific language was needed. In drafting article 15 the parties had considered adding the qualifying phrase 'within the limits of efficient military organization,' but rejected that course, apparently because it did not accurately represent the views of Australia and New Zealand. Before Balfour left for London at the end of November he and Rogers had reached a vague understanding, subject to the British government's concurrence. Rogers, belatedly foreseeing potential trouble ahead, discussed the matter with Riverdale on 8 December, inferring from their conversation 'that you accept as the proper interpretation of this paragraph that Canadian personnel from the training plan will, on request from the Canadian Government, be organized in

Royal Canadian Air Force units and formations in the field.' He asked for written confirmation of this impression, but Riverdale was more cautious on paper than he may have been in conversation. Article 15, Riverdale thought, 'implies' that Canadian requests to incorporate graduates in RCAF units 'will, in all circumstances in which it is feasible, be readily accepted by the Government of the United Kingdom.'[149] The gap between these two positions, of course, was as wide as either party might wish to make it.

Rogers, confined at the time to a hospital bed, rejected Riverdale's interpretation outright, as did the prime minister. Despite having just satisfactorily concluded the much disputed priorities problem, King was determined that there would be no agreement unless the British gave a 'clear and unequivocal statement' that Canadian graduates of the plan would be organized into RCAF squadrons 'at the request of the Canadian Government.' It was a principle, he stressed, that the Cabinet considered 'essential to Canadian participation in the Scheme.'[150] Throughout the weekend, Ralston, Skelton, and Canadian officials conferred continuously with Riverdale, Campbell, and the British mission to find a compromise. The British government, Campbell informed the Canadians, was concerned with the open-ended commitment implied by their interpretation. Would there be no limit on the number of Canadian squadrons? He asked that the Canadians accept British good faith and 'have confidence in the U.K. government that [later] discussions would lead to the "hammering out" of a satisfactory solution of the problem.'[151] Ralston suggested it would be sufficient if the British made clear that they accepted the principle involved, but King was adamant. There would be no compromise. While operational necessity and military efficiency were important, they were not the crux of the problem. The importance of assigning Canadian aircrew to RCAF squadrons was, King said, 'in the broad sense, political, not merely technical.'[152]

Canadian and British delegates were working on another formula. The RCAF was concerned that keeping most of its groundcrew in Canada to maintain air training aircraft would cause morale and recruiting problems. Many would want to get overseas, and in any case the RCAF preferred having its own crews. They suggested posting some of them to the United Kingdom and replacing them in the training scheme with RAF personnel. Then, as complete Canadian air and ground establishments were concentrated in Britain, they would be organized into RCAF squadrons. It seemed a reasonable compromise, so Croil and Brooke-Popham 'proposed the organization of R.C.A.F. squadrons as and when sufficient Canadian air *and ground* personnel should be available.'[153] The Canadians presented their alternative to King and the Cabinet War Committee on 14 December, after which Brooke-Popham, Riverdale, and Campbell were shown into the prime minister's office.

Unfortunately, the RCAF staff had gone beyond the government on the issue and the British delegation was informed that the alternative was 'quite unsatisfactory.' The proposal, King said, 'would result in public criticism that Canadians were being substituted for U.K. personnel in zones of danger.' Moreover, he continued, 'the Canadian government had always assumed that the United Kingdom would provide the ground personnel for Canadian air

crews,' and 'that this would not prevent the identification as Canadian ...'[154] Canada was assuming a great financial burden through air training; in return it expected Britain to maintain the air force overseas, including RCAF squadrons with RAF groundcrews.

Not without reason, the British were confused. Despite sound arguments against exchanging groundcrews on the basis of cost and efficiency, they had agreed because they thought it was what the Canadians wanted.[155] How else to define units as Canadian unless most of their personnel were in the RCAF? 'Brooke-Popham pointed out, not without some justice,' C.G. Power recalled, 'that to call a squadron a Canadian squadron, when the personnel attached to it were British in the ratio of about ten to one, would be somewhat of an anomaly.'[156] The bewildered air chief marshal 'expressed the view [to the Cabinet War Committee] that it was surely not suggested that a "unit" was not "one." It must be homogeneous. He had never had the idea that R.C.A.F. squadrons would be otherwise than predominantly Canadian, both as to air and ground personnel.' Riverdale added that if the Canadian proposal were accepted, 'appropriations for ground personnel from the United Kingdom for R.C.A.F. squadrons would have to be provided by the U.K. Parliament.' Extraordinarily, it seems that, during the six weeks of strenuous discussion, each side had been assuming the other would pay for the RCAF's overseas groundcrews. Riverdale was 'dumbfounded' at the Canadian attitude. 'We thought that this was exactly what you wanted,' he told Arnold Heeney, King's principal secretary.[157]

Now the situation was back where it had been. Riverdale was being asked to replace his earlier letter to Rogers with one interpreting article 15 to the Canadian government's satisfaction. The agreement hinged on identifying mutually acceptable words. Riverdale was co-operative, and King also had reason to want to complete the negotiations quickly. The 1st Canadian Division was due to land in Britain in a few days and King wanted to announce the air training scheme publicly before the arrival of the expeditionary force upstaged it. The prime minister of Australia had also informed him that he intended to release a statement on Australia's participation. King responded immediately, urging the Australians to hold back until the agreement was finalized, but his message arrived in Canberra too late. King's government was thereby open to criticism that it was delaying a settlement, and King was all the more outraged when the Australian prime minister informed him that the statement had been prepared in consultation with the Air Ministry. It does not strain credulity to imagine that the British may have been trying to hurry things along. King cabled a vehement protest to Chamberlain. 'I cannot begin to express my amazement that without consultation with the Government of Canada, the United Kingdom Air Ministry should have concurred in the issue of the statement by Australia before agreement had been reached between all parties. I need hardly add that the publication has caused great embarrassment to our Government in relation to other Commonwealth Governments as well as the press and people of our own country.' Chamberlain lamely explained that the mixup was due to a 'regrettable misunderstanding.'[158]

King was also anxious to settle because a propitious occasion was at hand. The prime minister wished to deliver a radio address to the nation on Sunday, the 17th, which happened to be his 65th birthday.[159] He had already calculated, correctly, that his quickest route to an agreement was through Riverdale directly. He had to be separated from 'Brooke-Popham and the technical men,'[160] who were raising the objections, and from the British War Cabinet, which seemed intent on 'objection and delay.'[161] Accordingly, on 15 December, King dispatched Heeney to see Riverdale 'on his behalf as Prime Minister of Canada, [to] urge him, as head of the United Kingdom Mission to do everything in his power to see that the Agreement was signed forthwith.' The Australian announcement, along with the inconclusive meeting the previous day, had 'threatened the entire Scheme. The matter had become even more serious – it threatened good relations within the Commonwealth.'[162]

Riverdale was gloomy when Heeney arrived, feeling that 'we were farther than ever from an agreement.'[163] Nevertheless, Riverdale met at noon with King, Ralston, and Rogers and they jointly produced a letter of understanding on the issue. On the point of signing, Riverdale decided he must first consult his colleagues, and after talking with Campbell concluded he had better await further cabled instructions, expected momentarily, before commiting his government. At King's urging, Riverdale then telephoned London requesting authority to agree in principle with Canada's right to incorporate their graduates into Canadian squadrons.[164] The Air Ministry baulked. Rather, 'the Secretary of State for Air had instructed Lord Riverdale that he must stand fast.'[165] His instructions stipulated that:

> The United Kingdom Government on the request of the Canadian Government would agree to the incorporation of Canadian pupils when passing out from the training scheme into units of the Royal Canadian Air Force in the field ...
>
> It would be a condition that the factor governing the numbers of such pupils to be so incorporated at any one time should be the financial contribution which the Canadian Government have already declared themselves ready to make towards the cost of the training scheme.[166]

The Air Ministry added the condition in order to limit the number of RCAF squadrons it would have to keep in the field. They calculated that, by providing the equivalent of Canada's air training expenditure of $350 million, they could maintain fifteen RCAF squadrons. 'The other Canadian air crews should join the RAF,' L.B. Pearson (indirectly involved in the discussions in London) noted sarcastically in his memoirs, 'and, as a concession to our national feeling, they should be allowed to wear a maple leaf on their caps, or "Canada" on their shoulders, or some such ennobling national device.'[167] King was indignant when he saw the British response. He thought the British were stalling by shifting their ground from the command question to money, which meant that 'the organization of R.C.A.F. units is to be measured by the cold consideration of financial contribution, disregarding entirely Canada's heavy contribution of fighting men in the way of pilots, observers and gunners.'[168]

King summoned Riverdale and Brooke-Popham to his office where, with Ralston and C.D. Howe, they conferred until past midnight, but made little progress. Next morning, 16 December, Riverdale discreetly enquired if the Air Ministry's letter would be acceptable without the last, objectionable paragraph concerning finances. That would help, he was told, but Ralston, in particular, wanted other revisions as well.[169] Ralston and Riverdale conferred, and King increased the pressure by having his minister inform Riverdale that, in view of the need for a public announcement, the matter of timing 'had ceased to be a technical question, and it was one now in which both Governments were deeply concerned; that he, as head of the Mission, should exercise his own authority.'[170] Ralston reported some movement, telling King 'that Lord Riverdale was all right. That he thought he was anxious to have this matter concluded for my birthday [but] ... he was having a very difficult time with Sir Brooke-Popham [sic]. That he wanted further time to think the matter over quietly.'[171]

He then sought out Riverdale, and told him they 'must settle this matter at once ourselves.'[172] The basis of their settlement was the latest draft which Ralston and Riverdale had prepared that day: 'On the understanding that the numbers to be incorporated or organized at any time will be the subject of discussion between the two Governments, the United Kingdom Government accepts in principle as being consonant with the intention of Paragraph 15 of the Memorandum of Agreement, that the United Kingdom Government, on the request of the Canadian Government, would arrange that the Canadian pupils, when passing out from the Training Scheme, would be incorporated in or organized as units and formations of the Royal Canadian Air Force in the field. The detailed methods by which this can be done would be arranged by an Inter-Governmental Committee for this purpose under Paragraph 15.'[173] The offending paragraph relating the number of RCAF squadrons to a financial formula was dropped. Riverdale agreed to substitute the phrasing 'subject of discussion' for the Air Ministry's original 'subject of agreement.' In return he asked that the potentially important 'the' before 'Canadian pupils' be deleted in order to make the term less comprehensive. Finally, a few minutes after midnight, following six weeks of hard bargaining, King and Riverdale signed the agreement.[174]

6
Building the Plan

The primary task of the RCAF in the early years of the war was to meet the challenge of the British Commonwealth Air Training Plan. Only 4000 strong by the end of 1939, the force had to create and administer not only its own Home War Establishment, and an ever-increasing number of overseas squadrons as well, but also a vastly dispersed training organization orginally expected to comprise 33,000 servicemen and 6000 civilians.[1]

At the outbreak of war, the RCAF had only five aerodromes of its own, with six more under construction.[2] Extending the crucial interwar partnership between the RCAF and the Department of Transport [DOT], the chief of the air staff, Air Vice-Marshal G.M. Croil, and J.A. Wilson, controller of civil aviation, agreed on 3 October 1939 to co-operate in the rapid expansion of facilities. DOT would select airfield sites and, after RCAF approval, develop the landing fields. The air force would design and erect the buildings.[3] Site selection and survey work started immediately, before the BCATP Agreement was signed, in order to get as much work done as possible before the onset of winter.[4] The realization of a concrete air training scheme enlarged and accelerated the demand.

The air force had already reached an agreement with the Department of Labour in early 1939 to provide pre-entry trades training under the Dominion-Provincial Youth Training Programme established in 1937 to assist the unemployed. In September 1939 a thousand men were under instruction and another thousand were expected. The two existing technical training schools (No 1 at Trenton and No 2 at Camp Borden) were centralized into a single establishment, located at the Ontario [Mental] Hospital, St Thomas. Youth Training Programme graduates – after May 1940 only aero-engine and airframe mechanics continued in the plan – joined other recruits 'going to the mental hospital for training,' and thus provided enough essential support staff to meet immediate requirements.[5] Groundcrew recruiting never proved a real problem for the RCAF during the war, particularly after women were enrolled in the Canadian Women's Auxiliary Air Force – later called the RCAF (Women's Division) – starting in 1941.[6]

The aircraft requirement had to be met largely from British industry. Britain would supply most of the advanced trainers; the balance, 187 Harvards, was to be provided by Canada, Australia, and New Zealand. Canada was responsible

for the cost of elementary trainers, Great Britain for many of the engines. The plan, when fully developed, was designed to turn out 1464 trained aircrew every four weeks. The majority of these graduates would be Canadian, and the RCAF would need to produce 1536 aircrew recruits for each training cycle (allowing for projected failures), or 19,968 per year. From its own graduates Canada could retain a small number each year to fill vacancies in Home War Establishment squadrons. All others were to be made available immediately to the United Kingdom for service overseas.[7]

Conditions of service, other than those of pay and discipline, were those of the RAF. The RCAF had traditionally enrolled pilot recruits as provisional pilot officers, but now all trainees were enlisted as aircraftman 2nd class, the lowest rank in the service. While under specialist training, all pupils were to be leading aircraftmen, and on graduation they would become sergeants. Some pilots and observers were to be selected for commissioning after completing training, and in July 1940, several months before the first pupils graduated, the proportion was set at 33 per cent. A further 17 per cent, chosen from among those who 'rendered distinguished service, devotion to duty and display of ability in the field of operations,' were to be commissioned later.[8] Though RAF regulations provided for air gunner officers, no routine provision was made for wireless operator (air gunner) commissioning until February 1941. Then 2 per cent were commissioned on graduation, and 5 per cent in the field. These rates were both increased retroactively to 10 per cent in August, when rates for aircrew trained purely as air gunners – not included in the original agreement – were established at 5 and 15 per cent. In all cases those commissioned were not given any different or additional training in Canada to prepare them for their officer status. Typically, they were merely informed of their promotion by telegram a few days after graduation. As one pilot and his friend expressed it early in the plan: 'and so, without any instructions as to how to comport ourselves, we became officers.'[9]

The direction and control of the BCATP was vested initially in the Canadian minister of national defence, with the chief of the air staff in executive command. However, it soon became apparent that the operation of the plan – and the administration of a burgeoning RCAF – was a task of such immense proportions that it called for separate administrative arrangements: K.S. Maclachan had held the post of acting associate deputy minister (naval and air) since 8 September 1939, but on 11 April 1940 James S. Duncan, a senior executive of Massey Harris Company Ltd, was appointed associate acting deputy minister for air. German military successes in Denmark and Norway that month served to emphasize still further the importance of air power, and the Cabinet moved quickly to create a separate air minister. C.G. Power, known as 'Chubby,' formerly postmaster general, assumed the portfolio of minister of national defence for air on 23 May 1940. In July another piece of legislation created a similar appointment for the navy.[10]

Despite its high and growing profile in Ottawa, the RCAF remained committed to goals established elsewhere, turning out aircrew to meet the needs of the Royal Air Force. A standing committee of the British Air Council, the Empire

SUMMARY OF 1939 BCATP AGREEMENT

AIRCRAFT REQUIREMENTS: 3540 total
702 Tiger Moths and Fleet Finches (elementary trainers)
50 per cent with Moth engines at British expense
720 North American Harvards (single-engine trainers)
533 (plus extra engines) at British expense
1368 Avro Ansons (twin-engine and navigation trainers), UK supplied (less wings)
750 Fairey Battles (air gunnery trainers), UK supplied

TRAINING: to follow RAF syllabus

TRAINEE POPULATION
Canada 80.64 per cent of commitment
Australia 11.28 per cent of commitment
New Zealand 8.08 per cent of commitment
United Kingdom
- right to contribute up to 10 per cent of elementary flying and air observer trainees
- commitment to make up shortfalls
- Newfoundland trainees to be part of RAF contribution

PRODUCTION TARGETS FOR FULLY DEVELOPED PLAN (every four weeks)
544 service-trained pilots
340 air observers
580 wireless operators (air gunner)
Note: Canadian recruiting requirements to meet these commitments: 1536 recruits each cycle (allowing for failures), or 19,968 recruits per year

GRADUATES: RCAF graduates to home defence squadrons (maximum per year)
136 pilots
34 air observers
58 wireless operators (air gunners)
and to be identified with their dominion by some method to be agreed upon.

ESTIMATED COST TO 31 MARCH 1943: $607,271,210

CONTRIBUTIONS
United Kingdom $185,000,000 in kind
Canada $ 66,146,048 for initial and elementary training in Canada
Remainder $356,125,162 to be divided (based on trainee population):
Canada 80.64 per cent $287,179,331
Australia 11.28 per cent $ 40,170,918
New Zealand 8.08 per cent $ 28,774,913

Air Training Scheme Committee, normally met every two weeks in London, England, to monitor performance and look after the wider interests of the Commonwealth-wide organization as a whole.[11] A Supervisory Board was created in Ottawa, with representation from each of the four countries participating in the BCATP, to oversee the plan's progress in Canada. This board met monthly, at first under the chairmanship of the minister of national defence, but subsequently under the minister of national defence for air. Other Canadian members included the ministers of finance and transport, and the chief of the air staff. A financial adviser was appointed to administer the large number of accounts involved. Each of the three overseas partners established Air Liaison missions in Canada to further safeguard their interests, the United Kingdom Air Liaison Mission being the main channel through which the BCATP was kept informed of operational requirements and changes in plans.[12] Mission members were free to visit any BCATP unit or establishment and to give any observations or recommendations directly to the chief of the air staff or the Supervisory Board.

As in the RAF, elementary flying training schools [EFTSs] were to be organized and run on a civilian-managed, commercial basis. On the outbreak of war, fourteen more flying clubs had been awarded contracts to train pilots, in addition to the eight which had been doing so since June 1939. The clubs' place in the BCATP was soon firmly established. To arrange the details, a committee was formed, chaired by K.S. Maclachlan, and including the chief of the air staff and the president of the Canadian Flying Clubs Association, Major Murton Adams Seymour, who was the driving force on the committee. Seymour had founded the first flying club in Canada (the Aero Club of Vancouver) in 1915, flown in the Royal Flying Corps overseas in 1916 and 1917, and returned to Canada to assist in setting up the RFC Canada training scheme. He remained on the staff of RAF Canada until the end of the First World War. A prominent lawyer in the interwar years, he received the McKee Trophy and an OBE for his work in integrating the flying clubs' training expertise into the BCATP. It was largely Seymour's idea to form twenty-six small elementary flying schools, each operated by one or two flying clubs, in order to distribute the work-load and benefits more evenly across the country than would be possible with the thirteen larger schools originally approved.[13]

With only two exceptions, one at Cap-de-la-Madeleine, Que., run by Quebec Airways, and one at Davidson, Sask., run directly by the RCAF, the participating clubs were reorganized as limited liability companies under the Dominion Companies Act. Each had to raise $35,000 working capital locally as a demonstration of financial stability, community support, and good faith, and satisfy the RCAF that it could provide an adequate instructional, administrative, and technical staff. The entities thus formed were known as flying training companies. Each received a monthly managerial fee, allowances for operation and maintenance, a set payment per flying hour, and a ration allowance, all subject to periodic revision. These payments allowed an efficiently operated company a small profit; a dividend of 5 per cent could be declared, any balance being placed in a government-controlled fund. Aircraft and other major

equipment were provided by the government, while the companies were responsible for daily care and maintenance.[14]

The Toronto Flying Club obtained the first contract. Reorganized as Malton Flying Training School Ltd, it operated No 1 Elementary Flying Training School at Malton (Toronto) airport. The training plan was still in some disarray when the school opened in June 1940 under difficult circumstances – for example, all spare parts and tools were for Tiger Moth aircraft; all the twenty-one aircraft supplied were Fleet Finches. In spite of such problems, elementary training in EFTS run by these civilian companies expanded steadily in the ensuing months.[15]

Commercial aviation companies also provided training in aerial navigation. Canadian Pacific Airlines, some of its recently acquired affiliates, and a few independent firms agreed to manage the ten air observer schools [AOSS]. The contracts negotiated were similar to those made with the flying clubs, but with no allowance for profit, payments being adjusted to meet actual expenses. All instruction was done by air force personnel, but the companies provided civilian pilots to fly students and instructors on navigational exercises. Sometimes slightingly called 'taxi drivers' or 'air chauffeurs,' these staff pilots were 'a great source of comfort' to student observers who sometimes 'navigated' their aircraft many miles from their intended path and depended on their pilots to bring them home again.[16]

Finding instructors was difficult. Pilot training schools had to draw on the air force's own small resources to qualify those needed. Only a handful of service and commercial pilots was available, and adequate numbers could only come from new graduates of RCAF training establishments already in existence. Time was short. Course length for each of the current three pilot phases was soon reduced to correspond to the RAF's wartime standard of eight weeks.[17] On the outbreak of war, pupils undergoing advanced training at Trenton were deemed to have graduated and were posted, while those in intermediate pilot training were sent on to the advanced school. This abridgement temporarily freed the intermediate facilities at Camp Borden for more refresher and instructor courses for civilian pilots. In January 1940 the advanced school moved to Camp Borden and joined the intermediate one to form the nucleus of the first BCATP service flying training school [SFTS]; together, the combined school continued both service and instructional training on an interim basis until the plan started. That same month the Flying Instructors School at Camp Borden, which had grown from an instructional flight created in July 1939, moved to Trenton. It was subsequently redesignated the Central Flying School.[18] The few recruits accepted for pilot training under the immediate prewar training scheme worked their way through this system. To their great disappointment, many of the early graduates found themselves posted to the Flying Instructors School, where they were trained for instructional posts in the BCATP instead of going overseas to join operational squadrons.[19]

Air observer and bombing and gunnery school instructors posed a different problem. Fewer were needed, since each could handle fairly large numbers of pupils at a time, but the aircrew categories of air observer and wireless operator (air gunner) were unknown in the prewar RCAF: even in the RAF the employment

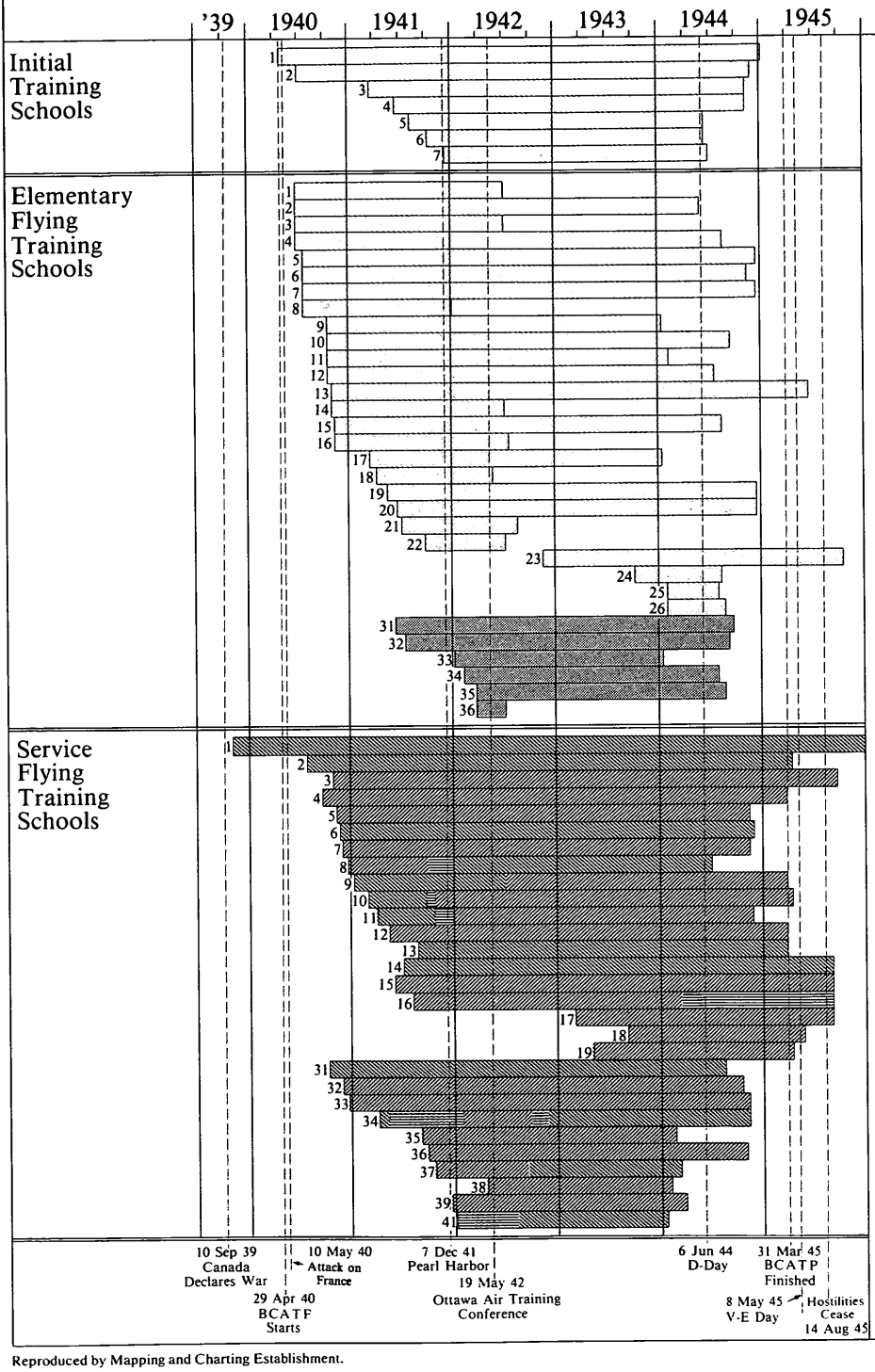
of specialist observers and air gunners had only been decided on in the last two years of peace, and that policy had not yet percolated through to Canada which had no specialist navigators, bomb aimers, air gunners, or aircrew wireless operators. There were navigation, wireless (radio), and air armament schools before the war, but they taught part of the pilot training course with instructors who were themselves primarily either pilots or ground personnel. These men now provided a small initial staff for the armament and wireless schools, and sixteen university graduates with adequate backgrounds in mathematics were recruited to become navigation instructors for the first air observer schools. In the long run, however, instructors for these specialist branches, as for pilot training, had to come from the plan itself.[20]

Meanwhile, the airfield construction agreement with the Department of Transport was bearing fruit. When the war began Canada had 153 recorded airport sites, over half of which were developed. Many were unsuitable for flying training, being in operational, mountainous, or isolated areas; too close to the international border; or with unfavourable climates. Of the remainder, some could house more than one school. Twenty-four developed sites needed only additional buildings to fit them for immediate use, and eighteen of these sites provided the plan's initial base. Others required extensive work. Each main airfield usually had two subsidiary airstrips, or relief fields, associated with it. These strips lacked the facilities of the main base, but could be used for practicing 'circuits and bumps' and for alternative landings if the main field had to close down. In all, counting both main aerodromes and relief fields, seventy-five separate sites were needed, and DOT field parties, accompanied by RCAF officers, criss-crossed the country to find them. Airfields needed safe approaches; adequate size; level, well-drained, and firm ground; and available public utilities. An adequate supply of potable water, underrated at first but later highly influential in site selection, was essential but sometimes hard to ensure, especially on the prairies, where other conditions were often easily met. Bombing and gunnery schools needed a large training area. Service flying training schools had to have access to smaller practice bombing ranges.[21]

Political pressure, always present, had surprisingly little effect. Decision-making guidelines minimized its impact, and even the prime minister's wishes could be, and were, overruled. Mackenzie King represented Prince Albert, Sask., in the House of Commons. Local and federal representation from that community played a part in the awarding of contracts for EFTS aircraft repair and the operation of 6 AOS, but King's influence did not succeed in reversing a decision to close the school in 1942.[22]

To ensure effective supervision of BCATP construction, the Air Council decided to place it under R.R. Collard, vice-president and general manager of Carter-Halls-Aldinger Construction Company of Winnipeg, who was brought into the air force as deputy director of works and buildings with the rank of wing commander and later rose to air vice-marshal. As the construction programme got under way, engineering sections were established in the field to supervise the work. During the first four-and-a-half years of war, more than one and three-quarter million blueprints were issued, about 33,000 final drawings were

BRITISH COMMONWEALTH AIR



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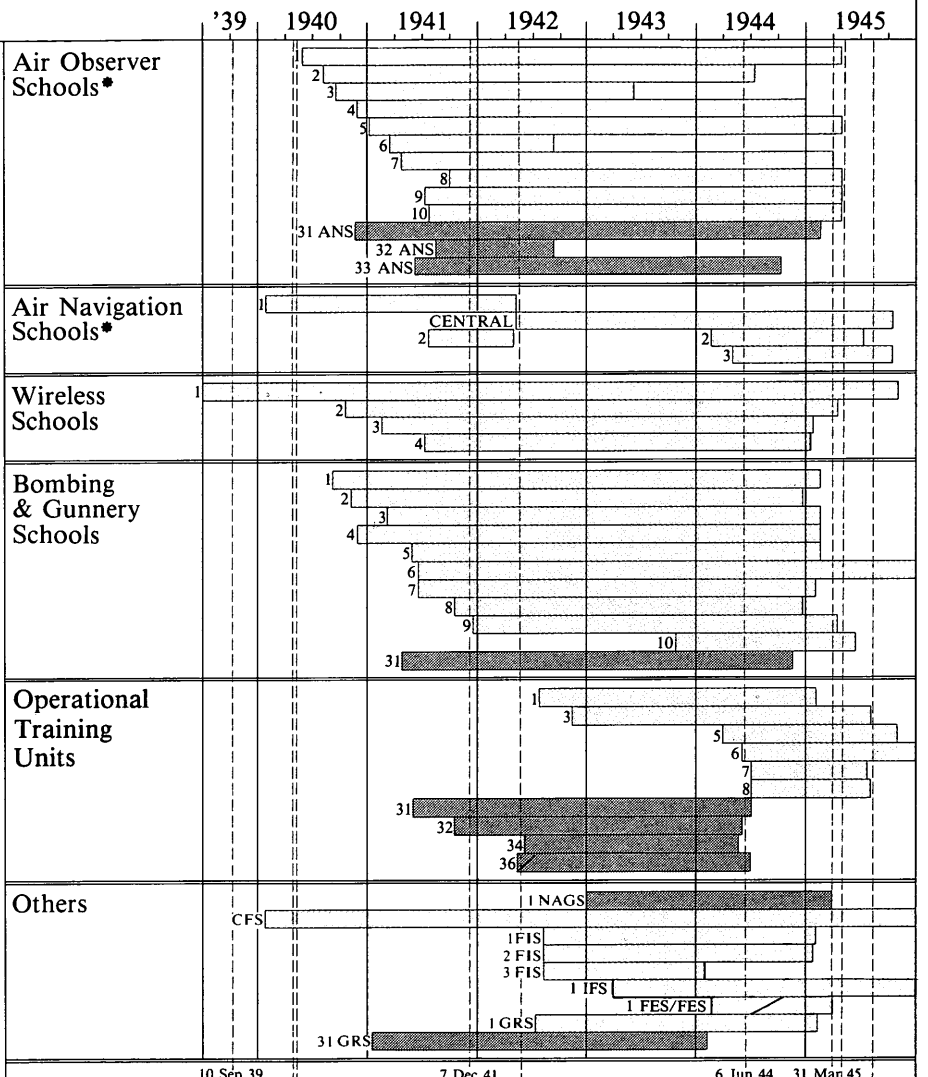
TRAINING PLAN - AIRCREW SCHOOLS



LEGEND: Service: RCAF RAF

---- Single-engine SFTS ----

---- Dual-engine SFTS ----

- Single & Dual-engines SFTS -

Notes: RAF Schools were numbered from 31 up.
Part II of the BCATP commenced 1 July 1942.
*RAF Air Navigation Schools carried out the same function as RCAF Air Observer Schools. Canadian ANS's were more advanced navigation schools.

Abbreviations: CFS - Central Flying School
FES - Flight Engineers School
FIS - Flying Instructor School
GRS-General Reconnaissance School
IFS-Instrument Flying School
NAGS-Naval Air Gunners School

made, and 8300 buildings constructed by the Directorate of Works and Buildings. Although the Directorate served the Home War Establishment as well, most of this work was undertaken on behalf of the BCATP.[23]

Airfields had to be stocked with the myriad items of equipment required by a modern air force. Most RCAF supply had previously been the responsibility of the Royal Canadian Ordnance Corps, itself now strained by the army's expansion, but in late 1939 a new RCAF Equipment (or Supply) Branch took over the procurement and distribution of clothing and non-technical stores. Starting early in 1940, a specially formed Air Force Headquarters section drew up schedules of equipment needed by each type of school to ensure efficient provisioning. Contracts were then let through the Department of Munitions and Supply. In February, Croil was able to tell the Supervisory Board that this work was well advanced and firm orders were in hand for small tools, workshop equipment, barrack furniture, clothing, and miscellaneous items.[24]

These orders did not include the specialist technical equipment, aircraft, and engines which could only come from the United Kingdom. Shipments of these items were irregular, but after discussions with the Air Ministry through the United Kingdom Air Liaison Mission, Croil advised the minister of national defence in April 1940 that no serious delay in the arrival of equipment from overseas was expected.[25] It proved too sanguine a judgment. The disasters of May and June 1940, and subsequent crises in the U-boat war, meant that equipment problems continued to plague the BCATP.

Adequate financial controls were essential, and the RCAF's Pay and Accounts Branch expanded accordingly. The branch's responsibilities were especially complicated since the RCAF had two distinct roles in Canada: air training and home defence. Separate accounts were needed for each since the expenses of the BCATP were shared between the Commonwealth partners and Canada alone was responsible for the Home War Establishment. Those units which served both the domestic squadrons and the training plan had a cost-sharing formula worked out according to the amount of time and effort devoted to each. For example, as of 1 January 1940, it was estimated that RCAF Headquarters devoted about 70 per cent of its effort to the BCATP and 30 per cent to domestic problems.[26]

The prewar Air Training Command, formed in 1938 as an expansion of the Training Group created just three years previously, was manifestly too small to supervise this growing organization. It was redesignated No 1 Training Command in January 1940, and three other geographically based commands were started in March and April, each reporting directly to Air Force Headquarters in Ottawa. Each command was to be as self-sufficient as possible, with its own recruiting and manning organization, supply and repair depots, and air training schools, and sites were chosen accordingly.[27] Because the RCAF could not hope to meet all the manning requirements of these commands, the three overseas partners agreed to provide some of their own staff and instructors.[28] In practice, this meant Royal Air Force support. The first of eighty-five British officers and 182 other ranks, requested in December 1939, landed in January 1940. Eventually, about 300 loaned personnel, including a proportion of Australians and New Zealanders, served in Canada.[29]

In answer to a request for a director of training at RCAF Headquarters, the Air Ministry nominated Air Commodore Robert Leckie. Leckie had commanded the ill-fated, two-squadron CAF in 1919 and, while seconded from the RAF in 1920 and 1921, had been director of flying operations for the Canadian Air Board. Subsequently, his career had taken him to many parts of the globe and had given him experience in all types of air operations; he was air officer commanding, RAF Mediterranean, in Malta when informed of his impending transfer. He was ready and willing to leave with the main party of loaned personnel, but the RCAF was not quite so ready to welcome him back to Canada.[30]

Except for the chief of the air staff, Leckie had seniority over every other officer in the RCAF, including Air Commodore G.O. Johnson, the head of the Organization and Training Division at RCAF Headquarters and Leckie's designated superior. Johnson might have been promoted, or Leckie granted a temporary RCAF commission with a later appointment date, but two other air commodores, E.W. Stedman and L.S. Breadner, were both senior to Johnson, and the RCAF was unwilling to upset their positions and its own promotion procedures. Leckie's seniority, meanwhile, was protected by the Commonwealth Visiting Forces Act. So impossible did the situation seem to the RCAF that Croil cabled the Air Ministry that 'it is apparent another selection should be made in place Air Commodore Leckie to avoid complications.' In reply, he was told that the Air Ministry felt that it 'must insist on ... Leckie's posting remaining unchanged ... [and was] taking the matter up ... through the Dominions Office with the High Commissioner for the U.K. in Canada.' Soon after, Leckie sailed. While he was en route, Croil made another attempt to avoid the problem. He asked that Leckie's appointment be transferred outside of the RCAF's chain of command to the British Air Liaison Mission. This suggestion, too, was rejected.[31]

Leckie arrived in Canada at the beginning of February 1940. He was soon busily at work under Johnson, his junior in rank, years of service, and age. In the event, no problems occurred and in November, largely because of the expanded activities of the Air Training Plan, the Directorate of Training was raised to the status of a headquarters division with three subordinate directorates: Air Training, Technical Maintenance, and Training Plans and Requirements.[32] As air member for training, Leckie, like other division heads, had a seat on the Air Council and was directly responsible to the chief of the air staff.

This headquarters reorganization was only one of several. From the immediate prewar period, Air Force Headquarters had expanded by giving division status (its major organizational element) to those directorates or branches with the greatest new responsibilities, rather than simply enlarging and adding subordinate sections to existing staff branches. In this way it grew to have eight divisions by 1942: Air Staff, Organization, Personnel, Supply, Aeronautical Engineering, Training, Accounts and Finance, and Chief of the Air Staff. This unwieldy organization continued until the last year of the war, when it was consolidated into five: Air Staff, Personnel, Supply and Organization, Research and Development, and Training. This last function was deleted from the organization in August 1945. Leckie had long since left, having been transferred to the RCAF in 1942 and appointed chief of the air staff in January 1944.[33]

Meanwhile, recruiting for the RCAF progressed slowly, surprising those who tried to enlist but not at all surprising in retrospect. In October 1939 the war establishment of the RCAF was set at 1500 officers and 15,000 airmen, and quotas were issued accordingly. During the next few months enrolment was slow, the main concern being to ensure enough skilled tradesmen and professional help for the air force's ground organization. While establishment figures were being decided, recruiting officers confined most of their activities to preliminary interviews, trade testing, and medical examinations. In February 1940 the war establishment was raised to 3500 officers and 41,000 airmen, an elevenfold increase over peacetime strength. It was not possible to recruit and train all these people at once, however, and a limited establishment of 2400 officers and 28,000 airmen was put into effect within this authorized strength. These numbers included personnel for the Home War Establishment (8500 all ranks) and the limited overseas commitments then foreseen (an additional 1000 personnel); the remainder, 20,900, were needed primarily for the Air Training Plan.[34]

Between September 1939, when recruiting centres opened, and 31 March 1940, about 3000 young men applied for aircrew training. Only 229 of these, enough to fill the immediate vacancies at the flying clubs, could be accepted. In addition, a few fully qualified civilian pilots joined as direct entries.[35] These men were not part of the Canadian quota of aircrew recruits for the BCATP; the latter were not accepted until April. In the interim, eager applicants continued to arrive at recruiting centres only to be told that there was 'a waiting list ten miles long.'[36] Recruiters spent hours explaining that a lot of preparatory work was needed before large-scale air training could start. Prospective aircrew trainees were sent home with instructions to hold themselves in readiness for a future call.

There was no waiting list for staff pilots and flying instructors. The Supervisory Board allowed the flying club companies to nominate as instructors, in addition to well-qualified and experienced civilians, promising candidates who were promptly enrolled in the RCAF. Some of these nominees received additional flying experience (to bring them up to a minimum of 150 hours) and a preliminary flying instructor's course at a selected civil school or flying club. They then trained at the Central Flying School for four weeks, were promoted to sergeant, and finally were posted to an EFTS on unpaid leave of absence: enlistment protected the RCAF's investment by discouraging these newly qualified instructors from leaving for more lucrative employment elsewhere. Pre-training of potential elementary instructors at civil schools and flying clubs continued until mid-1941, when a small surplus had been accumulated. The scheme was then terminated and replacement instructors drawn as necessary from regular graduates of the BCATP.[37]

As had happened twenty-five years before, many Americans volunteered for service. The RCAF handled such applications somewhat more delicately than had the British government in the First World War. Those living in Canada or claiming a Canadian address were treated as Canadians. Others were given detailed information only if they visited a Canadian recruiting unit. Initially, Air Force Headquarters examined the files of all volunteers residing in the United

States and tactfully told the best of them that their application would be given 'consideration' if they chose to come north to renew it. Then regulations were changed to allow the enlistment of foreign nationals in the Canadian forces without swearing allegiance to His Majesty the King, and to allow their commissioning in the wartime RCAF.[38]

Simultaneously, Canada quietly consulted American authorities, who secretly confirmed that they did not object to enrolment if it was discreetly handled so as not to antagonize the large isolationist element in the United States.[39] Recruiting was therefore entrusted to a semi-secret organization, the Clayton Knight Committee, which was established for this purpose in the spring of 1940. The committee's principals were three First World War flyers: Clayton L. Knight, C.R. Fowler, and H.F. Smith. The last, commissioned as a wing commander in the RCAF, functioned as the committee's director. By September he had established an extensive organization with headquarters at the Waldorf-Astoria Hotel in New York. Contacts were offered positions in the RCAF or RAF, or civilian jobs as elementary training instructors, staff pilots, or RAF ferry pilots. After warnings from a friendly but correct State Department about overt violations of American neutrality laws, the Canadian government created the Dominion Aeronautical Association Ltd in January 1941 to keep the committee's activities within acceptable limits. Theoretically, the Clayton Knight Committee procured recruits for the association rather than the RCAF, though the former actually functioned as an integral part of the air force's Directorate of Manning.[40] (See Appendix C.)

In April 1940 the air force recalled 166 aircrew applicants to the recruiting centres and sent them to 1 Manning Depot, Toronto. On 'Zero Day,' 29 April 1940, 164 of these men gathered at 1 Initial Training School in Toronto to receive instruction as the first BCATP course.[41] Almost simultaneously, the BCATP faced the only crisis which ever seriously threatened its existence as the Germans followed their attack on Denmark and Norway with an offensive against the Belgians, Dutch, and French that ended with the fall of France in June. In the face of those disasters, there was some discussion of curtailing or abandoning the Air Training Plan in order to provide maximum immediate reinforcements to the United Kingdom. The British position looked desperate, and the new minister of national defence for air, C.G. Power, sided with those who proposed sending as many Canadian pilots as possible to the United Kingdom. The British themselves, however, remained calm. On 20 May they wrote that the 'efficient prosecution of the war can best be achieved by adhering to the plans laid down for the Air Training Scheme and by accelerating them to the utmost.'[42]

This direction, given as German divisions split the Allied forces west of Abbeville in France, driving the British Expeditionary Force back on Dunkirk, was clear enough. Whether it was practicable was another question. On 23 May the United Kingdom advised the Canadian government that 'In view of increased probability that in the next phase of enemy bombing objectives will be air and aero-engine factories in this country, we have regretfully come to the conclusion that export of Battle and Anson aircraft (airframes and engines)

should be suspended for 2 months subject to review in the light of war situation.'[43]

There was no shortage of elementary and single-engine advanced trainers. The elementary ones were produced in Canada and their supply was already running ahead of the original requirements. American production of Harvards for the BCATP was also well in hand. Moreover, the stock of single-engine trainers was increased after the French *débacle*, when the United Kingdom took over French contracts in the United States. As far as these aircraft were concerned, the Canadian government could, as requested by Britain, 'continue to exert every effort to make it [training] productive to the fullest practicable extent in the shortest possible time.'[44] Twin-engine trainers, however, were a different matter. The Anson, used in the training of all aircrew categories, was vital, and trained pilot production would be particularly affected by any shortfall. Up to the beginning of June, only fifty-nine Ansons had been received. The shortage of twin-engine trainers meant that some readjustment of training plans was inevitable, and several SFTSs opened as single-engine schools on a temporary basis.[45]

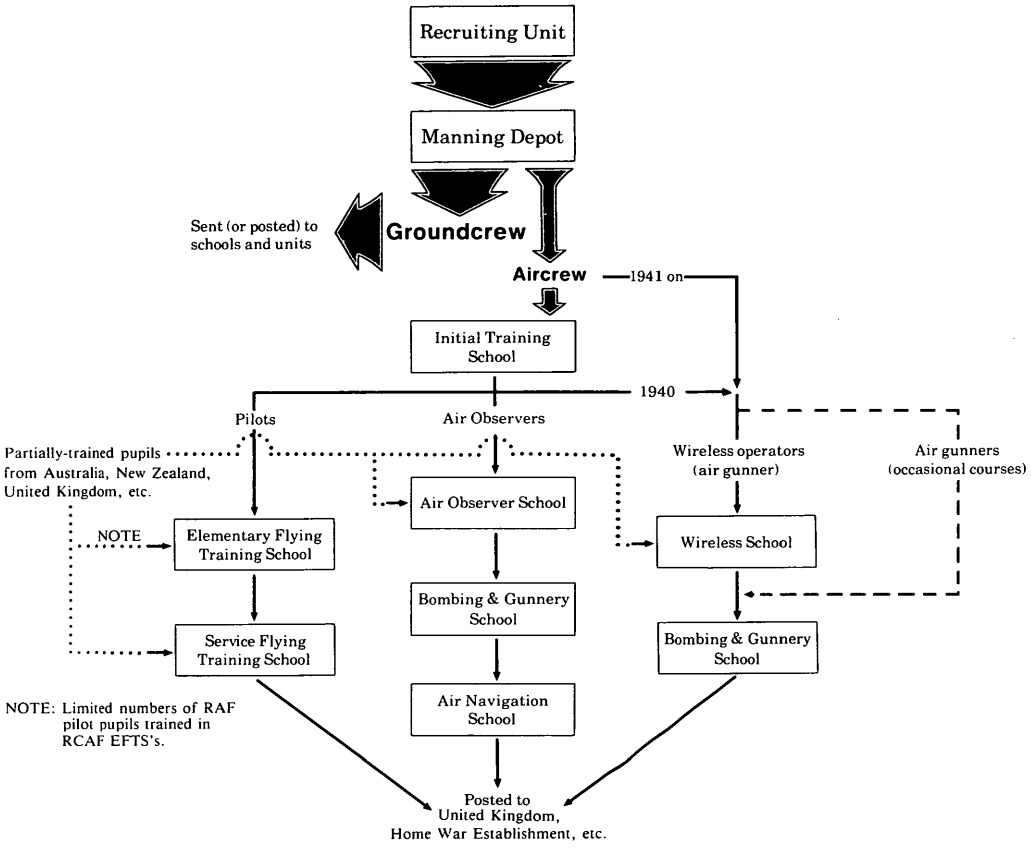
The British implied that the halt in delivery was only temporary, but they were already – and would remain – much behind schedule.[46] It was evident that the long-term solution lay in the construction of twin-engine trainers in Canada. Airframes posed no particular problem – some Canadian firms were already assembling Anson parts and manufacturing wings – but engines were another matter, since Canada produced none herself. Within a few days C.D. Howe, the minister of munitions and supply, had identified a source of suitable engines at the Jacobs Aircraft Company of Pottstown, Pennsylvania. His department immediately began to negotiate an order for 2300 Jacobs engines costing about $10 million. Simultaneously, it arranged to have several Canadian manufacturers share in the construction and assembling of Anson airframes modified to take the new engine and American instruments. The subcontracting of components and the production of finished aircraft became the responsibility of a new crown corporation, Federal Aircraft Ltd, with headquarters in Montreal. Formed in June and given an initial contract for one thousand aeroplanes, the company was expected to deliver its first aircraft in February 1941.[47]

Aircraft were only part of the solution to the war's new demands. Still more aircrew (none of which had yet been produced) would be needed. Taking advantage of its existing surplus of elementary training aircraft, the RCAF boldly decided on 28 May 1940 to open eight EFTSs by 22 July instead of the scheduled two. This was a gamble; there were then only enough advanced trainers and instructors for two SFTSs instead of the five needed to absorb the output of eight elementary schools. By July the RCAF was planning to open eight SFTSs before the end of the year, three more than provided for in the original agreement, despite the delays and shortages of twin-engine trainers. School openings were rapidly accelerated, by averages of just under six weeks for those SFTSs opened in 1940, and almost nineteen weeks for the EFTSs. Aircraft supply did prove inadequate, however. No 7 SFTS, MacLeod, Alta, opened with only three of its allotted thirty-six aircraft, and 8 SFTS, Moncton, NB, which was sixteen weeks ahead of schedule, with only four.[48]

Pilot training was abbreviated, though in measured steps corresponding to training changes in the United Kingdom. There, the SFTS course was revised progressively from sixteen to ten weeks, primarily by transferring such subjects as gunnery and formation flying to RAF group pools – now named operational training units [OTUS] – under the control of Bomber, Fighter, and Coastal Commands. This action was not favoured by the commands, for the OTUS, especially heavy bomber units, were already congested and overworked; they saw a higher standard of basic training as the solution to their problems. The OTUS were equipped with the same front-line aircraft as their parent commands, however. These aircraft, which could not be shipped out of Great Britain, were easier to provide at the time than advanced trainers. Further, there was a shortage of instructors, wireless equipment, and operators at flying training schools, and too few relief fields to allow fully efficient training. Air gunnery facilities were also extremely limited in the United Kingdom, and air firing practice by pilot-trainees had to take second place to that of air observers and air gunners. Hence the OTUS had no choice but to absorb more of the training burden. The syllabi of schools producing RAF pilots were amended accordingly.[49]

Training elsewhere had to be adjusted as well if all SFTSS were to produce a common product. BCATP pilot courses were initially reduced from eight weeks to seven in EFTSS and from sixteen weeks to fourteen in SFTSS in line with British developments. In October the SFTS courses were further reduced to ten weeks. Trainees would no longer spend two weeks of their service flying course at bombing and gunnery schools for live air firing and bombing exercises. Instead, this training was deferred until they reached overseas OTUS. The deletion of this 'applied armament' section from the syllabus removed the major distinction between the intermediate and advanced phases of the service flying course. These phases were therefore amalgamated, and the SFTSS replaced their existing separate intermediate and advanced training squadrons by two identical ones, each covering the same course. After further refinement, these changes boosted each SFTS pilot intake from forty pupils every four weeks to fifty-six every twenty-four days. To keep pace, the number of trainees at elementary flying schools was greatly enlarged. Together with accelerated school openings, these changes meant that BCATP pilot production more than doubled from a 1940-1 forecast of 3196 to an actual 7756.[50] However, the quality of training inevitably suffered at the expense of quantity, and this was especially true of overseas graduates, who necessarily were faced with a much longer period of inactivity between SFTS and OTU in which their newly and hastily acquired skills were likely to deteriorate considerably.

Other aircrew trades did not match the rapid expansion in pilot training. Only slight changes were made in the courses for air observers and wireless operators (air gunner). On 27 May 1940 No 1 Air Observer School at Malton, Ont., and No 1 Wireless School, Montreal, received their first classes. A total of 115 observers and 149 wireless operators (air gunner) graduated in 1940. No provision had been made in the 1939 agreement for training specialist air gunners, but as 1940 wore on the RCAF thought it advisable to train a limited number of such specialists (without giving them wireless training) in order to speed up the production of aircrew.[51] In November the first fifty-four graduated,



AIRCREW TRAINING FLOW
TO 1942

and all were posted to Home War Establishment positions. Specialist air gunner training was intermittent thereafter until a regular syllabus was established in 1942.[52]

After the fall of France, the British government sought permission to transfer four existing SFTSs en bloc to Canada in order to remove them from what had now become an active war front. Power had assured Sir Gerald Campbell, the British high commissioner, that accommodation for the four schools, and any others the Air Ministry might wish to transfer, could be provided without interfering with BCATP production. The United Kingdom, he stipulated, should bear all operating costs and some of the capital expenditure on aerodrome development, the exact proportion to be agreed later. The British accepted this offer and its conditions, revising the original request to include eight service flying training schools, two air observer schools, one bombing and gunnery school, one general reconnaissance school, one air navigation school, and one torpedo training school. The Canadian government was prepared to receive these units by the end of the year, but the Air Ministry decided to delay the transfer until certain of the outcome of the Battle of Britain.[53] Site preparation was now pushed even faster. Contractors were sometimes asked to begin work without waiting for the required order-in-council. Construction originally planned to take two-and-a-half years was 90 per cent complete by November 1940.[54]

The first British school to move was 7 SFTS for pilots of the Royal Navy's Fleet Air Arm. A site at Kingston, Ont., originally scheduled to be ready in June 1941, was rushed to completion to accommodate the British school. To avoid confusion with BCATP schools, it was renumbered as No 31, thus establishing a sequence of numbering for RAF schools in Canada. Staff began arriving at Kingston on 9 September while painters and carpenters were still putting the finishing touches to the camp. By the end of the month the SFTS was ready, but since the first group of British naval ratings was not due to arrive until January, the school started to train regular BCATP entrants. Two such courses graduated before the instructors turned to training naval pilots. Four more schools moved to Canada in the final months of 1940: 32 SFTS to Moose Jaw, Sask., 33 SFTS to Carberry, Man., 31 Air Navigation School to Port Albert, Ont., and 31 General Reconnaissance School (where aircrew learned maritime patrolling tactics) to Charlottetown, PEI.[55]

The British schools constituted a separate but parallel organization to the BCATP. Governed by the Visiting Forces Acts, they kept their national identity and, to a limited degree, their autonomy. The schools were said to be acting 'in combination' with the RCAF, and the Canadian force possessed extensive powers over them. A Canadian commanding a BCATP training command could, for example, order a British school in his area to alter its training programme or carry out special manoeuvres, or could post RAF personnel to any other unit in the command if necessary. Both RCAF and RAF administrative and disciplinary rules and regulations applied. After a year, in August 1941, the RAF schools were reorganized to make them, so far as practicable, identical in personnel and equipment to BCATP schools.[56]

As more and more RAF schools moved to Canada, Air Vice-Marshal L.D.D.

McKean, who had succeeded Brooke-Popham as head of the UK Air Liaison Mission, grew increasingly apprehensive that the training organization was getting too large for the Canadians. In February 1941 he pointed out to Air Marshal A.G.R. Garrod, the RAF's air member for training, that RCAF air vice-marshals and air commodores actually had less experience than the average RAF group captain. As the training plan expanded, the RCAF would need even more senior officers, and, he feared, '... it rather seems as though they can only produce them by adding stripes to the sleeves of officers already probably "over-ranked." It has been noticeable to me that from the C.A.S. downwards they are now passing through a period of, perhaps, over-confidence in their own powers.'[57] As a hedge, McKean suggested that the RAF should press for as full a measure of control as possible over their own schools. A few weeks later it was too late: the RCAF was already tightening its control over the transferred schools. By the beginning of April, McKean noted 'a clear indication that a strong effort may be made from this side [Canada] in the near future to secure virtually complete control' of the training, even to the point of hearing rumours that 'the Government are seriously considering proposing' that all RAF schools be absorbed into the BCATP. Such a move might cost the RAF schools their identity.[58] He was premature. The real attempt by Canadians to gain complete control over the training organization in their own country did not come for another year.

RAF schools were not the only ones established in Canada after the German successes in Western Europe. The Norwegian government-in-exile, based in London, which had modern aircraft on order in the United States, requested permission to create its own training base. Norway obtained the Toronto Island airport and adjacent property as the site for the Royal Norwegian Air Force Training Centre, colloquially called 'Little Norway.' Later moved to the Muskoka airport, near Gravenhurst, Ont., the centre carried out flying training from September 1940 until early 1945. Though independent of the plan and paying its own way, the Norwegians enjoyed a good deal of support for their flying training from the BCATP.[59]

General Charles de Gaulle also proposed Free French training in Canada, preferably in a self-contained organization similar to that of Norway. In 1941, however, Canada had no facilities for instructing pilots in French – a source of some embarrassment – and discouraged the proposal. Free French airmen were finally sent to Canada, along with other Allied nationals, in early 1942 with the gradual transfer of more RAF schools. All were accepted as part of the RAF quota.[60] The majority were trained at 32 SFTS, Moose Jaw, Sask., and No 34, Medicine Hat, Alta, which soon became quite cosmopolitan. Course No 53, for example, which began training at Moose Jaw on 12 April 1942, included eighteen Norwegians, fourteen Canadians, eight Britons, four Americans, three Czechoslovakians, three Free French, one Pole, and one Belgian.[61]

Meanwhile, in the fall of 1940 students had arrived from the other dominions to make the plan truly a Commonwealth one. The first were Australians. An official welcoming party greeted them when they disembarked from the liner *Awatea* on 27 September 1940. They entrained for 2 SFTS, Ottawa, where, distinctive in their dark-blue uniforms, they were cheered on arrival by Canadian

BRITISH COMMONWEALTH AIR TRAINING PLAN

PILOT TRAINING FACILITIES

1940-1945

NO. 4 TRAINING COMMAND
HEADQUARTERS, REGINA/CALGARY

Initial Training Schools
- No. 2 Regina
- No. 4 Edmonton

Elementary Flying Training Schools
- No. 5 Lethbridge (moved to High River June 1941)
- No. 8 Vancouver
- No. 15 Regina
- No. 16 Edmonton
- No. 18. Boundary Bay
- No. 24 Abbotsford
- No. 25 Assiniboia
- No. 31 De Winton
- No. 32 Bowden
- No. 33 Caron
- *No. 34 Assiniboia
- No. 36 Pearce

Service Flying Training Schools
- No. 3 Calgary
- No. 7 MacLeod
- No. 8 Weyburn
- No. 15 Claresholm
- No. 19 Vulcan
- No. 32 Moose Jaw
- No. 34 Medicine Hat
- No. 36 Penhold
- No. 37 Calgary
- No. 38 Estevan
- No. 39 Swift Current
- *No. 41 Weyburn

Flying Instructor School
- No. 2 Vulcan (moved to Pearce May 1943)

Operational Training Squadron (WAC)
- No. 13 Sea Island (moved to Patricia Bay November 1940)

Operational Training Units (WAC)
- No. 3 Patricia Bay
- No. 5 Boundary Bay (Det. at Abbotsford from August 1944)
- No. 6 Comox
- *No. 32 Patricia Bay

NO. 2 TRAINING COMMAND
HEADQUARTERS, WINNIPEG

Initial Training School
- No. 7 Saskatoon

Elementary Flying Training Schools
- No. 2 Fort William
- No. 6 Prince Albert
- No. 14 Portage la Prairie
- No. 19 Virden
- No. 23 Davidson (moved to Yorkton January 1945)
- No. 26 Neepawa
- *No. 35 Neepawa

Service Flying Training Schools
- No. 4 Saskatoon
- No. 10 Dauphin
- No. 11 Yorkton
- No. 12 Brandon
- No. 13 North Battleford
- No. 17 Souris
- No. 18 Gimli
- No. 33 Carberry
- *No. 35 North Battleford

NO. 1 TRAINING COMMAND
HEADQUARTERS, TORONTO

Initial Training Schools
- No. 1 Toronto
- No. 5 Belleville
- No. 6 Toronto

Elementary Flying Training Schools
- No. 1 Malton
- No. 3 London
- No. 7 Windsor
- No. 9 St. Catharines
- No. 10 Mount Hope (moved to Pendleton August 1942)
- No. 12 Goderich
- No. 20 Oshawa

Service Flying Training Schools
- No. 1 Camp Borden
- No. 5 Brantford
- No. 6 Dunnville
- No. 9 Centralia
- No. 14 Aylmer (moved to Kingston August 1944)
- No. 16 Hagersville
- *No. 31 Kingston

Central Flying School
- Trenton

Flying Instructor School
- No. 1 Trenton

Instrument Flying School
- No. 1 Mohawk

NO. 3 TRAINING COMMAND
HEADQUARTERS, MONTREAL

Initial Training School
- No. 3 Victoriaville

Elementary Flying Training Schools
- No. 4 Windsor Mills
- No. 10 Pendleton
- No. 11 Cap de la Madeleine
- No. 13 St. Eugene
- No. 17 Stanley
- No. 21 Chatham
- No. 22 Quebec

Service Flying Training Schools
- No. 2 Ottawa
- No. 8 Moncton (moved to Weyburn January 1944)
- No. 9 Summerside (moved to Centralia July 1942)
- No. 13 St. Hubert (moved to North Battleford February 1944)

Flying Instructor School
- No. 3 Arnprior

General Reconnaissance Schools
- No. 1 Summerside
- No. 31 Charlottetown

Operational Training Units (EAC)
- No. 1 Bagotville
- No. 7 Debert
- No. 8 Greenwood
- *No. 31 Debert
- No. 34 Pennfield Ridge
- *No. 36 Greenwood

Edmonton
Penhold
Bowden
Calgary (1941-44)
Prince Albert
North Battleford
Saskatoon
Comox
Sea Island
Vancouver
Abbotsford
Patricia Bay
Boundary Bay
De Winton
High River
Vulcan
Claresholm
Pearce
Medicine Hat
Mac Leod
Lethbridge
Swift Current
Moose Jaw
Caron
Regina (1940-41)
Assiniboia
Estevan
Davidson
Yorkton
Dauphin
Weyburn
Neepawa
Virden
Souris
Carberry
Brandon
Gimli
Winnipeg
Portage la Prairie
Fort William
Windsor
Goderich
Centralia
London
Aylmer
Camp Borden
Malton
Toronto
Oshawa
Mount Hope
St. Catharines
Dunnville
Hagersville
Brantford
Belleville
Trenton
Kingston
Mohawk
Armprior
Ottawa
St. Eugene
Pendleton
Montreal
St. Hubert
Quebec
Cap de la Madeleine
Victoriaville
Windsor Mills
Pennfield Ridge
Bagotville
Summerside
Charlottetown
Chatham
Moncton
Debert
Stanley
Greenwood

LEGEND:
- Command Headquarters
- Initial Training Schools
- Elementary Flying Training Schools
- Service Flying Training Schools
- Central Flying School
- Flying Instructor Schools
- Instrument Flying School
- General Reconnaissance Schools
- Operational Training Squadron
- Operational Training Units

0 100 200 300 400 500 mi
0 100 200 300 400 500 600 700 800 km

Schools numbered 31 and above were originally RAF schools. Those subsequently incorporated into the RCAF (indicated by *) are also listed under their later RCAF numbers.

BRITISH COMMONWEALTH AIR TRAINING PLAN
AIRCREW (OTHER THAN PILOT) TRAINING FACILITIES
1940-1945

NO. 4 TRAINING COMMAND
HEADQUARTERS, REGINA/CALGARY

Initial Training Schools
- No. 2 Regina
- No. 4 Edmonton

Air Observers Schools
- No. 2 Edmonton
- No. 3 Regina (moved to Pearce September 1942)

Wireless School
- No. 2 Calgary

Bombing and Gunnery Schools
- No. 2 Mossbank
- No. 8 Lethbridge

Operational Training Units (WAC)
- No. 3 Patricia Bay
- No. 5 Boundary Bay (Det. at Abbotsford from August 1944)
- No. 6 Comox
- *No. 32 Patricia Bay

NO. 2 TRAINING COMMAND
HEADQUARTERS, WINNIPEG

Initial Training School
- No. 7 Saskatoon

Air Observers Schools
- No. 5 Winnipeg
- No. 6 Prince Albert
- No. 7 Portage la Prairie

Central Navigation School
- No. 1 Rivers

Wireless School
- No. 3 Winnipeg

Bombing and Gunnery Schools
- No. 3 MacDonald
- No. 5 Dafoe
- No. 7 Paulson

NO. 1 TRAINING COMMAND
HEADQUARTERS, TORONTO

Initial Training Schools
- No. 1 Toronto
- No. 5 Belleville
- No. 6 Toronto

Air Observers Schools
- No. 1 Malton
- No. 4 London

Air Navigation Schools
- No. 1 Trenton (moved to Rivers May 1942)
- No. 31 Port Albert
- No. 33 Mount Hope

Wireless Schools
- No. 1 Mount Hope
- No. 4 Guelph

Bombing and Gunnery Schools
- No. 1 Jarvis
- No. 4 Fingal
- No. 6 Mountain View
- No. 31 Picton

Flight Engineer School
- Aylmer

NO. 3 TRAINING COMMAND
HEADQUARTERS, MONTREAL

Initial Training School
- No. 3 Victoriaville

Air Observers Schools
- No. 8 Quebec
- No. 9 St. Jean
- No. 10 Chatham

Air Navigation Schools
- No. 2 Pennfield Ridge (1941-42) Charlottetown (1944-45)
- *No. 32 Charlottetown

Wireless School
- No. 1 Montreal (moved to Mount Hope September 1944)

Bombing and Gunnery Schools
- No. 9 Mont Joli
- No. 10 Mount Pleasant

Naval Air Gunners School
- No. 1 Yarmouth

Flight Engineers School
- No. 1 Arnprior (moved to Aylmer July 1944)

General Reconnaissance Schools
- No. 1 Summerside
- No. 31 Charlottetown

Operational Training Units (EAC)
- No. 1 Bagotville
- No. 7 Debert
- No. 8 Greenwood
- *No. 31 Debert
- No. 34 Pennfield Ridge
- *No. 36 Greenwood

Edmonton
Calgary (1941-44)
Pearce
Lethbridge
Comox
Patricia Bay
Abbotsford
Boundary Bay
Prince Albert
Saskatoon
Dafoe
Regina (1940-41)
Mossbank
Paulson
Rivers
Macdonald
Portage-la-Prairie
Winnipeg
Mont Joli
Chatham
Mount Pleasant
Charlottetown
Summerside
Debert
Bagotville
Greenwood
Quebec
Pennfield Ridge
Yarmouth
Victoriaville
Montreal
St. Jean
Arnprior
Belleville
Mountain View
Picton
Trenton
Malton
Toronto
Mount Hope
Port Albert
Guelph
Jarvis
London
Aylmer
Fingal

LEGEND:
- Command Headquarters
- Initial Training Schools
- Air Observers Schools
- Air Navigation Schools
- Central Navigation School
- Wireless Schools
- Bombing and Gunnery Schools
- Naval Air Gunners School
- Flight Engineers Schools
- General Reconnaissance Schools
- Operational Training Units

0 100 200 300 400 500 mi
0 100 200 300 400 500 600 700 800 km

Schools numbered 31 and above were originally RAF schools. Those subsequently incorporated into the RCAF (indicated by *) are also listed under their later RCAF numbers.

airmen determined 'to show our Australian cousins how welcome they are in our midst.'[62] Graduating on 22 November, they left for Great Britain on 14 December 1940.

While the initial Australian pilot graduates went overseas, the Canadians stayed home. On 30 September 1940, after the first BCATP-trained pilots received their wings at 1 SFTS, Camp Borden, the majority received postings as SFTS instructors. Subsequent classes were similarly employed. Of the 203 Canadian pilots who graduated in 1940, only twenty were posted to Great Britain. A few went to home defence squadrons, but 165 found themselves back in the BCATP which needed more and more flying instructors and staff pilots.[63]

Other aircrew felt themselves more fortunate – or so it seemed at the time. The first air observers, whose training took them from 1 Air Observer School at Malton to 1 Bombing and Gunnery School [B&GS], Jarvis, Ont., and then to 1 Air Navigation School [ANS] at Trenton, completed their training on 25 October. Thirty-seven graduates were immediately sent to Great Britain and arrived on 25 November. One year later, half of them had been killed and several of the survivors were prisoners of war. In December, two other air observer courses, comprising seventy-seven pupils, embarked for the United Kingdom. During November and December, 149 wireless operators (air gunner) and nineteen air gunners graduated from 1 B&GS, No 2 at Mossbank, Sask., and No 4 at Fingal, Ont.[64] All were posted overseas; many were destined to become casualties of the early years of the bomber offensive.

During that first year some important changes occurred in the Air Training Plan's hierarchy. An early bureaucratic casualty was the removal of Air Vice-Marshal G.M. Croil from the key appointment of chief of the air staff. As we have seen, the enormous expansion of the RCAF, much of it directly connected to the creation of the BCATP, had led to the appointment of C.G. Power as associate minister of national defence for air in May 1940. Power, a jovial, chain-smoking, hard-drinking Quebecker and a consummate politician, found it difficult to work with the humourless, 'regimental,' and somewhat puritanical Croil. Power did not dispute Croil's competence, considering him 'an excellent, conscientious, hard-working officer,' but he 'got the impression, rightly or wrongly, that friendly, sympathetic co-operation with him would, owing to our fundamental differences of temperament, be difficult if not impossible. I wanted friendship and co-operation; he, I imagine expected me to give little more than routine supervision, leaving to him the unquestioned authority over the members of the service, and possibly over the purely civilian functions of the department. There was already ... a degree of antipathy between the uniformed members of the forces and the numerous civilian staff. I felt that Croil's influence would lean altogether too heavily on the side of the uniform and so upset the balance that should exist in a department of this kind.' At Power's request, Croil resigned his appointment as chief of the air staff at the end of the month and was shunted off to the specially created post of inspector general of the RCAF. His place was taken by L.S. Breadner – 'an altogether different type ... big, bluff, hearty and congenial, almost at once he became a close friend as well as a valued associate,' wrote Power.[65] Less than two weeks later, on 10 June 1940, the minister of

national defence, Norman Rogers, was killed in an air accident while en route from Ottawa to Toronto. He was succeeded by J.L. Ralston, a dour, straight-dealing Nova Scotian with a distinguished record in the First World War, who had held the defence portfolio from 1926 to 1930 and was serving as minister of finance when Rogers died.

These changes at the top made little difference in the daily operation of the Air Training Plan, but the new men had to deal with a number of policy issues looming in the background, some of them long-standing and some the result of uncertainties brought about by the fall of France. The greatest of these concerned British views on the future of the BCATP now that the enemy dominated the whole of continental Western Europe. Had this radically revised alignment, for instance, significantly altered their perceptions about the future of wartime air training? To discuss these and other issues with the British, Ralston flew to the United Kingdom in mid-November. Travelling in an unheated bomber, he caught a severe chill which brought on a bout of sciatica, so that he had to conduct much of his business from a wheelchair.[66] C.D. Howe, the minister of munitions and supply, who sailed to join him in early December, had the misfortune to have his ship, the *Western Prince*, sunk under him somewhere south of Iceland. He spent several hours in a lifeboat, which is no place to be on the North Atlantic in winter, but survived unscathed.[67] In London the two politicians were joined by Breadner, the new chief of the air staff, who attended the discussions leading up to the Ralston-Sinclair Agreement that provided for the formation of twenty-five RCAF squadrons overseas by April 1942, a topic which will be considered at length in the forthcoming third volume of this history. At the same time the Canadian delegation convinced the British government to assume financial responsibility for equipment expenditures made in Canada on behalf of the United Kingdom; the British asked only that such expenditures be approved by the UK Air Liaison Mission before being charged to their account.[68]

However, the Canadians were unable to get any definite assessment of how strategic air requirements were likely to affect the air training organization. Sir Archibald Sinclair, the British secretary of state for air, pointed out that the Air Ministry was too absorbed with combatting the German night-bomber offensive against Britain and preparing for their own spring operations to make any definite decisions about the BCATP. He did give an assurance that all the Canadian air training schools would be fully utilized and explained that Britain was contemplating transferring more schools to Canada. Sinclair felt that it was most important for Canada to concentrate on the production of Anson aircraft, a limiting factor in the expansion of the air training programme.[69]

Unfortunately, Canadian Anson production was in difficulty. There were few engineers in Canada with experience in aeroplane design and manufacture, and the Anson II, the Canadian version, was more than just a copy of the British model. In addition to an American engine and instruments, it had a Canadian propeller, a roomier cockpit, hydraulic air brakes, and a retractable undercarriage. The directors of the new crown corporation, Federal Aircraft, though experienced in general manufacturing, had little knowledge of aircraft design

and were, as Howe admitted, 'a bit at sea.' They had lost the confidence of the subcontractors, who confronted Howe on his return from England in January 1941 and asked that Federal Aircraft be dissolved and its functions taken over by de Havilland Aircraft of Canada. Howe stated that he had no intention of disbanding the company, arguing that doing so would only lead to further delays and expense.[70] In the event, he was probably right, and slow progress was made. The first Canadian-built Anson was successfully flown in August 1941. Only one plane was delivered that month, six in September, thirteen in October, sixteen in November, and thirty-four in December, when it was accurately forecast that production would mount rapidly to one hundred per month. Nevertheless, the BCATP was hampered throughout 1941 by a severe shortage of twin-engine aircraft.[71]

Equally important was the lack of spare parts for British-made aircraft. During 1941 many of these planes were due for major overhauls, and a large percentage were grounded because essential items were unavailable.[72] In the United Kingdom, the Ministry of Aircraft Production concentrated on operational aircraft, and less obvious essentials such as trainers and spare parts tended to be neglected. This policy played havoc with the training programme but the problem was deeply rooted in the pattern of British production and could not be easily overcome.[73] As a concession, the British gave the RCAF a freer hand to determine what items could be manufactured in Canada. Lists of the most needed parts were prepared and submitted to the Department of Munitions and Supply, although it took many months to accumulate reasonable stocks. In the meantime, only the initiative and resourcefulness of air force engineers and tradesmen kept the aircraft flying.

Worries over aircraft production were soon compounded by worries over manpower. In March 1941 Power told the House of Commons that although there was no current shortage of aircrew applicants, he was not certain that Canada would be able to meet its future commitments. Aircrew were drawn primarily from the national pool of men in the eighteen to twenty-eight age bracket, fit for high-altitude flying, with good eyesight and two or more years of high school education. There were about 105,000 of these potential candidates, with 15,000 to 20,000 more entering this category every year.[74] Only volunteers could be taken, and not all were available to the air force, because the navy, army, and industry also recruited from this select group. With RCAF requirements in 1941 – some 25,000 recruits – exceeding the number of new entries, there was cause for concern.

Enrolment standards could be, and were, eased. When training began in April 1940, pupils were to be at least 18 and not yet 28 years old for potential pilots, and 18 and 32 for other aircrew categories. In September, as the plan was being accelerated, the upper limit was raised to 31 for pilots. The following January the limit for all except pilots was raised to 33. In October 1942, the age limits were extended again, being reduced to 17½ for all categories, and raised the next month to 33 for pilots (to 35 for other aircrew categories, with special permission from Air Force Headquarters). At the same time, the upper limit for those specifically enrolled as air gunners was raised to 39. Initially, prewar medical

standards were applied, but these were ultimately lowered for blood pressure, vision, and heart action, thus allowing increased aircrew enrolment.[75]

Until September 1941 the recruiting process was based exclusively on actual rather than potential academic performance. At first all applicants had to have junior matriculation standing. Too many potential aircrew were being lost because of this academic requirement, however, so in October 1941 special provision was made for suitable applicants who lacked the necessary education. Candidates signed an agreement to enlist for aircrew duties and received a small weekly living allowance while taking pre-aircrew academic training under the aegis of the Dominion Provincial Youth Training Programme to bring them up to the desired academic standard. Starting in 1942, candidates were actually enrolled in the RCAF, and in August they were given air force pay and allowances while undergoing academic training.[76] Then Air Force Headquarters ruled that all aircrew applicants had to take newly developed ability-to-learn and aptitude tests. Based on the work of a joint RCAF-University of Toronto Subcommittee on Personnel Selection, these tests were administered by specially trained manning personnel officers who joined recruiting and medical officers as members of the aircrew selection boards at recruiting centres. In early 1942 an improved version of the ability-to-learn test, the classification test, was adopted for use by all recruits, with a minimum score for each branch and trade. Shortly after, and in conjunction with an educational-achievement test, it replaced the formal education requirements for aircrew selection, and opened a large new source of candidates for the plan.[77]

In other areas, too, recruiting became easier. With the enactment of lend-lease legislation in March 1941, the American government treated the enlistment of its citizens in British and Canadian forces as part of its aid policy and exempted such recruits from its own draft. As of 8 December 1941 (the day after the Japanese attack on Pearl Harbor) 6129 Americans were serving in the RCAF – over 6 per cent of strength. Half of them were aircrew trainees, making up about 10 per cent of regular BCATP intake; almost 900 Americans had already graduated from the plan's schools. Another 650 were employed as staff pilots and EFTS instructors, while 668 had enlisted as ground personnel. Once the United States entered the war approximately one quarter of the Americans in the RCAF chose to transfer to the US Army Air Forces.[78]

The nature of the air war exerted another influence on the BCATP. Winston Churchill was determined to carry the war to the enemy after the fall of France. The only practicable method that seemed available to him, apart from attacking Italian forces in North Africa and the Mediterranean, was to bomb enemy targets in Europe. Daylight raids had proven unacceptably hazardous; night bombing turned out to be deplorably inaccurate. To improve the standard of bombing the British Air Ministry devised a new air observer syllabus in May 1941. The BCATP implemented the new scheme over the following few months. Bombing theory and initial bombing exercises were included in the courses at air observer schools, and these were extended from twelve to fourteen weeks to accommodate the additions. Thereafter, pupils carried out bomb-dropping exercises on the completion of each navigation practice. At the follow-on course

at bombing and gunnery school, pupils now trained in night bombing, and practised this skill during navigation training at the air navigation schools they subsequently attended.[79] Together, these changes broadened the knowledge of the air observers in this secondary duty, and increased their proficiency on graduation. Quantity as well as quality was adjusted. In October air observer school enrolments were raised 25 per cent above established levels. Even this number fell short of requirements, so plans were made to double nine of the ten AOSs, increasing the trainee population 90 per cent by March 1942.[80]

Meanwhile, an analysis undertaken by the RAF in 1941 concluded that the emergency reduction in pilot course length implemented in 1940 had seriously impaired training standards and operational efficiency. There had been an alarming increase in the number of air accidents in the training system in the United Kingdom and a monthly toll in operational squadrons equal to 20 per cent of establishment during the winter months of 1940-1. The basic cause appeared to be that training skills had not kept pace with individual advancement to more complicated types of aircraft. Further, pilots from Canada were now arriving in Great Britain faster than they could be taken into the OTUs. During the waiting interval, up to a month or more, they became impatient and unruly, and inevitably forgot some of their previous training. In response, the RAF proposed to increase flying training in Canada and to use the fields in Britain vacated by transferred RAF schools as advanced flying units where newly arrived pilots could be acclimatized to flying conditions in the United Kingdom and continue training without any undue break.[81] Accordingly, in October 1941, the whole pilot training stream was extended: initial training schools and elementary schools from seven weeks to eight, and service schools from ten weeks to twelve. In November, authority was granted to double five elementary schools in size. In December, following another request from the United Kingdom, service flying courses were extended once again to sixteen weeks.[82]

In spite of all the problems, delays, and difficulties encountered in 1941, the air training programme continued to surge ahead. The last of the sixteen initially planned Canadian SFTSs opened on 1 September, placing the pilot training organization seven months ahead of the original schedule. In all, thirty-four BCATP schools came into operation in 1941. By the end of December the programme of school construction provided for in the agreement was complete, less one bombing and gunnery school not yet required, for a total programme gain of four months. Aircrew production, of course, was even more advanced. Trainee intake since April 1940 totalled 39,609, compared to the originally planned 25,120. Canada's share was 83.2 per cent, compared to 80.6 per cent forecast in the 1939 agreement.[83]

At the same time, the RCAF was overcoming major problems of training aircraft supply. April 1942 brought the last Anson Is that the United Kingdom had agreed to provide, but 625 Canadian-built Anson IIs were on hand and there were good prospects of completing the 1000-plane order by the end of October. The last Harvards on Canadian order, also delivered that month, completed requirements until April 1943.[84] Thus, by the spring of 1942, the vast BCATP organization was functioning satisfactorily, churning out the required kinds and numbers of aircrew.

Quality was harder to measure. Perhaps a useful approach is to consider how personnel responded to the training. Candidates were at first enlisted simply as 'aircrew' and were sorted into the various categories at initial training school [ITS]. There they received elementary pre-flight instruction and were separated on graduation into their particular aircrew categories. Four-week ITS courses were gradually extended to ten weeks between January 1941 and October 1942.[85] From the beginning, the ITS's primary function was as a pilot/observer selector. The principal tool used was the Link trainer. This device could simulate an aircraft's motions and was used both to teach the theory of flight and to measure a candidate's pilot potential. In this latter role it was very unpopular. Pupils objected to being eliminated from pilot training by low marks in a machine which never left the ground, pilots on the school staffs were frustrated with the task of administering and marking the tests, and EFTS instructors complained that pupils picked up bad habits which had to be corrected later. In spite of persistent attempts to standardize testing, results were very uneven. In one school, 7 ITS, Saskatoon, Sask., it was even found that 'the percentage of failure [during pilot training] of those obtaining high Link marks is greater than those obtaining low marks.' Essentially, the machines were too temperamental for a closely controlled assessment programme, and the correlation with actual elementary flying was not close enough. The Link was to prove more valuable in teaching the techniques of instrument flying to men who had already learned to fly. Western schools stopped visual Link training in late 1942, and in April 1943 the Link testing programme was moved from the ITSs and placed under the jurisdiction of the aircrew selection boards from manning depots.[86]

With the emphasis placed on selection, the authorities at first paid little attention to the quality of instruction at ITSs. They only issued an outline syllabus before the first course began. Each school determined its own subject content, mimeographed its own precis (lecture notes to be used by the instructor), and set its own examinations. New subjects, such as navigation, were added to the course in 1941, but qualified instructors were not brought in at the same time, and the competence of the staff became increasingly suspect. Gradually, the training commands identified and corrected these deficiencies, but not until the original BCATP agreement had run its course. The RCAF finally issued a standard precis in 1942, but it was not until 1943 that the instructor problem was solved by turning the schools over to specially trained and experienced teachers of the RCAF's Education Branch.[87]

After ITS, pilot candidates advanced to EFTS and their first real contact with an aeroplane. Initially, school capacity was set at forty-eight pupils, but as training was accelerated the schools gradually grew until they were classed as single or double, with a capacity in the former of ninety students and in the latter of 180. By the end of 1941 the number of schools had been stabilized at twenty-two (twenty-six were originally planned). Four were double schools, and approval had been given to increase five more to this size. There were two classes under instruction at all times, and each school graduated one class and took in another every four weeks. The original eight-week syllabus called for about 180 hours of ground instruction and fifty hours of air training, half dual, in which an instructor

accompanied the student, and half solo. Instruction in the air was by means of a speaking tube from the instructor to the student, 'a source of irritation to both.' Pilots who experienced this system both as student and instructor considered that it 'was very poor ... very difficult to hear – and to give instruction.' Nevertheless, a pupil was expected to be ready for his first solo flight shortly after eight hours of dual instruction.[88]

The allotted fifty-hours flying time could be expanded if time allowed, and the minimum by 1942 was sixty hours. The extra time was not to coach slow learners – 'wastage,' stated the EFTS syllabus, 'should occur in the Elementary stage of training rather than at some future date'[89] – because merely learning to fly was not the goal. Air Vice-Marshal Leckie warned against the lengthy coaching of a pupil simply 'because he is such a nice fellow.'[90] There had to be stiff standards to produce potentially efficient service pilots. Although the time to solo was set as a minimum, 'My instructor mentioned that I would be given, like everybody else, eight – and only eight – hours of instruction, by which time I would be expected to go solo,' reported Richard Gentil, who trained at 10 EFTS, Hamilton, Ont., in 1941. He passed, but others did not. 'One or two needed that extra hour – that extra hour denied by service regulations so strictly observed by the authorities – and this I thought was a great pity, for who knows what talent was likely to be relegated to lesser services by this very stringent rule.'[91] Many got the extra time, but such strict attitudes throughout the programme allowed instructors 'to wash out the weaker pupils,' remembered J.M. Godfrey, who instructed at an SFTS. Otherwise, they 'were the first to become casualties' overseas.[92]

Ground instruction included engines, airframes, theory of flight, airmanship, navigation, signals, and armament; all pupils wrote examinations in each of these subjects. The June 1940 course reduction from eight to seven weeks was not accompanied by a reduction in content; the instructors and students simply had to work harder, a situation not eased until the course was returned to eight weeks in October 1941. The scope of the syllabus remained generally the same throughout the war, though the RAF's increasing emphasis on long-range night bombing and the growing variety of operational aircraft led to more time being spent on navigation, armament training, aircraft recognition, and instrument flying. 'My world shrank to the black-topped stick, the throttle, the rudder pedals, and the instrument panel in front of me,' Murray Peden later wrote. Such flying was 'arduous work indeed.' In the spring of that year 'we started night flying students dual and later on in the year we had to send them solo,' reported R.E. Baker, who instructed at 13 EFTS, St Eugene, Ont. 'That was tough.'[93]

In spite of the special training programme instituted in 1940, instructor shortage plagued the elementary schools for the first three years. It was aggravated by the increased pace of school openings, the move of RAF schools to Canada, the enlargement of existing schools, and the institution in 1942 of an average instructional tour length of twelve months. To fill the gaps, opportunity was given for fully qualified RCAF instructors to take these positions on leave without pay. In spite of the higher civilian salaries, there were too few volunteers for what many regarded as dead-end employment. Pilots were therefore posted

as serving members, on air force pay, and under air force discipline. Temporary shortages were made up by loaning instructors from other schools. The long-term solution, however, lay in the creation of additional flying instructors' schools to ensure a continued flow of purpose-trained pilots from the BCATP. Two new schools were opened in 1942, one of which, No 3 at Arnprior, Ont., was expressly for elementary instructors.[94]

In spite of the shortage, it was still found possible gradually to upgrade the skills of the many elementary instructors trained under the special abbreviated programme started in 1940. They were qualified for elementary training only and were unable to fly any of the more advanced aircraft soon to be encountered by their pupils, who quickly sensed this limitation. To solve this problem, the RCAF proposed to recall them, a few at a time, to air force duty, complete their training, and give them the choice of returning to instruction or serving elsewhere.[95] The schools objected strongly to this policy. 'This school,' angrily wrote the manager of 7 EFTS, Windsor, Ont., 'has a contract with His Majesty's government to train pilots ... and we should not be called upon to procure and train our own instructors and then have them raided by the R.C.A.F. If such a system is to be inaugurated I can foresee nothing but disaster ...'[96] The instructors, however, generally looked forward to the scheme and were impatient with the slowness with which it was implemented. Conversion training started in late 1941 and trickled on over the next two years without apparent disaster. About half of the graduates volunteered to return to their parent elementary school once requalified.[97]

During the winter of 1941-2, the conditions of service of RCAF instructors on leave without pay were made more desirable. They were given permission, for example, to wear their RCAF uniform during off-duty hours. At work, they were essentially civilians, and wore 'the Prairie Admiral's uniform' of their firm. At the request of the British Air Ministry, all instructors at RAF elementary flying training schools in Canada were service instructors, and by July 1941 there were fewer than thirty civilian instructors left at EFTSs, most of whom were overage for the RCAF.[98]

Elementary flying graduates went on to service flying training. Each SFTS was organized into three wings: headquarters, maintenance, and training. In the course reductions and refinements of 1940, the training wing, originally composed of one intermediate and one advanced squadron, became a two-squadron/six-flight organization. Every twenty-four days a new intake arrived, to be divided between two flights, one in each squadron.[99] At first each SFTS was to give instruction in both single- and twin-engine aircraft, but early in 1940, reflecting supply difficulties and a similar change in the United Kingdom, it was decided to open them either as single- or twin-engine schools.[100] The majority of the former were concentrated in the east, and of the latter in the west.[101] Most students hoped to be sent for single-engine training to become 'a fighter pilot, nothing else, a fighter pilot.' After all, the powerful Harvard was a fully aerobatic 'fun airplane,' and one not designed to 'put you in the mood for 30 degree turns or let-downs with the vertical speed nailed on 500 feet a minute. All that rot ... [was] for the Anson crowd' at twin-engine schools.[102]

Although initial plans called for training single- and multi-engine students in the proportions of 1:2, and later of 1:6.5, the early shortages of twin-engine machines made it inevitable that some future bomber pilots had to receive service training on Harvards and Yales. The courses at both types of school were similar, although the time allocated to navigation and armament was less at single-engine schools. Ground school included airmanship, armament, navigation, airframes, engines, photography and reconnaissance, signals, meteorology, and Link trainer practice. A minimum of 75 hours flying time, 40 of which was to be solo, was established, and expanded to 100 hours, half solo, when the course was lengthened to twelve weeks in late 1941.[103] Before receiving his 'wings,' each student had to demonstrate to the chief flying instructor his ability 'to take off and land without damaging His Majesty's property ... to navigate by day or night, to fly on instruments and handle our ships in any average situation.'[104]

Air observer training emphasized navigation, and selection for this vital aircrew category was carried out at ITS. Since mathematics was fundamental to their work, candidates were usually chosen from those recruits with high academic ability. Some recruits requested this category, but most wanted to be pilots. 'We knew, deep inside,' acknowledged J.R. Wood, an air observer trained in 1940, 'that ... the smart boys in maths were tagged to be observers. But secretly we prayed and prayed that we would be chosen to go on for the [pilot's] double wing.'[105]

Specialty training started at an AOS. Here the course, initially twelve weeks long, was increased to fourteen weeks in September 1941 and eighteen weeks in June 1942. It was mainly intensive training in navigation, but also included meteorology, morse code, and, eventually, over a week of instruction in bombing technique, along with the inevitable periods on hygiene, drill, and physical training. There were no rigid passing standards; it was difficult to determine whether an error in a practical exercise was the fault of the observer or of his pilot, who may not have steered according to instructions. Instead, trainees were rated on their general performance. Newly trained instructors, lacking operational experience themselves, were often unsure of the standard they should demand. However, up to the end of July 1942, about 16½ per cent of the pupils had been taken off course, almost precisely the wastage rate allowed for in the BCATP Agreement.[106]

Navigation was the air observer's primary duty, but bomb aiming came next. Air gunnery training was also included so that the observer could share effectively in the defence of his aircraft. After graduating from the AOS, pupils went for six weeks to a bombing and gunnery school to gain these skills. The gunnery portion of their course was similar to that given to air gunners and discussed below. Bombing instruction, however, was central to their operational tasks. At first it was elementary, but soon made rapid strides with the expansion of facilities and improvements in techniques. In the first class of air observers, each pupil flew an average of thirteen hours on bombing practice and dropped thirty-six bombs with an average error of 274 yards. By the summer of 1942, observers were flying an average of twenty-three hours and dropping

eighty bombs with an average error of 120 yards. On completing the bombing and gunnery course, graduates were promoted to the rank of sergeant and formally presented with the air observer's badge.[107]

Air observers completed their training with four intensive weeks at 1 ANS, Rivers, Man. (moved from Trenton, Ont., in November 1940), or 2 ANS, which opened at Pennfield Ridge, NB, in 1941. (The two schools were amalgamated in May 1942 at Rivers to form No 1 Central Navigation School.) Here observers were brought abreast of recent developments and techniques, and given an astronomical navigation course. On graduation, one-third were commissioned. Selected graduates were retained for qualification as AOS instructors. These candidates were given a four-week navigation instructors course in methods of instruction and classroom control before being posted to the training staff. Starting in June 1940, a few key men were given an even more detailed specialist navigator course to qualify them for chief instructor and flight and section commander positions in the BCATP.[108]

Wireless operators (air gunner) were the third principal aircrew category trained under the 1939 agreement. Except for the initial groups, recruits were enrolled directly into this category. At first they went to ITSs with other potential aircrew, and then to wireless schools for an intensive course which stressed radio theory. Everybody was unhappy with this training sequence, however, and in November 1940 the syllabus was drastically changed. At wireless school, much of the theoretical information was dropped, and students were given the essential items of the ITS course and two weeks of bombing and gunnery instruction. This allowed the elimination of ITS from their programme and increased the armament instruction without extending the subsequent training period at bombing and gunnery school. These and other changes affected course length. After cutting back from a proposed twenty-four-week course in the early planning stages, a sixteen-week wireless course proved quite inadequate and was extended while the first group was still under training, settling at eighteen and later twenty weeks in 1940, twenty-four in 1941, and finally twenty-eight weeks in 1942.[109]

Most of the emphasis was on technical classroom work, and trainees spent all too few hours flying. Air time was full. Pupils had to 'handle the trailing aerial, keep busy on the key, keep the log up to date, keep the pilot informed, etc.' 'We used trailing aerials for better reception ... It was a "No! No!" to not reel in the aerial before landing. We heard stories of a few dead cows near the airport and, of course, we were green enough to believe it.' Students passed most of these hurdles with the rank of leading aircraftman, having been promoted after ITS or, once direct entry to wireless school commenced, after one month of specialty training.[110]

From wireless school the pupils advanced to B&GS and air-firing exercises. This course, too, was lengthened by 1942 to six weeks from its original four. The first pupils flew about seven hours on gunnery exercises, during which they tried 'to keep from shooting off the tail or wing tips' while firing between 1000 and 1500 rounds from an obsolete Lewis or Vickers gun on a free mount in the open rear cockpit of a Fairey Battle in much the same manner as in the First World

War. In 1941 gunnery training facilities were improved by the introduction of the more up-to-date Browning guns and the arrival of a number of hydraulically operated turret gun mounts from Britain, but these remained in short supply. As late as the spring of 1942, John K. Smith, training at 6 B&GS, Mountain View, Ont., saw only one Browning machine-gun at his unit, 'on display in a cabinet – stripped down.'[111]

Bombing and gunnery school interrupted the wireless practice of the new wireless operators (air gunner), and travel time and lengthy waits before they arrived at their new units overseas led to further deterioration of skill. The British took steps to provide equipment on ocean transports, and suggested that training be undertaken at the embarkation depot and during the voyage. As a result, a policy was adopted in April 1941 of giving graduates further training while awaiting embarkation in order to maintain proficiency. Periodic efficiency checks were also instituted at B&GSs and arrangements made for tests and training during the voyage overseas.[112]

Meanwhile, operations overseas were being developed on a scale, and at a tempo, unforeseen in even the RAF's long-range estimates, while aircraft, equipment, and air tactics were all increasing in complexity. Moreover, it had been obvious for many months that the war would extend beyond 1943;[113] accordingly, an Air Training Conference (to be discussed in chapter 7) was held in Ottawa in May and June 1942, and a new agreement forged to supersede the plan as it then existed. On 30 June 1942 the original BCATP came to an end.

Its results were easy to see. In 1942 air training for the RAF was being carried on in many other countries besides Canada. Australia, New Zealand, and South Africa had schools, as did India and Southern Rhodesia. There were still flying training schools in the United Kingdom, and a number of American schools were training pilots and wireless operators (air gunner) for the RAF. However, the air training organization in Canada was the largest and was paying the greatest dividends. A total of 23,802 aircrew, excluding those trained in transferred RAF schools, had graduated by 30 June 1942. Of this number, 80 per cent or 17,464 were Canadians: 8868 pilots, 2991 air observers, 4183 wireless operators (air gunner), and 1422 air gunners. Most (well over 13,000) had been posted directly overseas to RCAF or RAF squadrons. About 3200 others had gone back into the BCATP or to the staff of RAF schools in Canada, and fewer than 900 to the Home War Establishment. Besides the Canadians, 2934 Australians, 2252 New Zealanders, and 1152 British had graduated from BCATP schools. Many more were still under training.[114]

7
Mid-War Modifications

In 1939 the government had chosen large-scale air training over the dispatch of formed RCAF units overseas, accepting the fact that most Canadian BCATP graduates would be dispersed throughout the RAF. Success in building the British Commonwealth Air Training Plan in Canada, however, did not preclude the need for adjustments to meet the war's changing demands, or eliminate problems relating to broad-based political objectives and the plan's goals. The most compelling consideration – and the one of greatest potential impact – was the issue of the employment of Canadian airmen abroad. At Ottawa's insistence the original BCATP Agreement had included a clause acknowledging that a substantial number of RCAF squadrons (and perhaps even larger formations) might be formed at a later date. This was a vague statement, not a definite promise, but it gave concrete expression to what otherwise might have remained a faint hope that the RCAF would have a significant operational commitment of its own. This issue of 'Canadianization' dominated all Anglo-Canadian discussions about the air war.

It is not easy to determine exactly when the question of RCAF organization overseas became a serious problem. The formation of Canadian squadrons abroad did not play an important part in Ottawa's air policy immediately after the fall of France, and while the Cabinet War Committee discussed the matter in the autumn of 1940, no firm decisions were taken. Perhaps the most sensible advice at that time came from the chief of the air staff, Air Vice-Marshal L.S. Breadner, who suggested a gradual evolution to wholly Canadian units abroad. Carried away by a vision of Canadian airpower, however, he optimistically suggested it might be possible to form as many as seventy-seven RCAF squadrons overseas by the end of 1942.[1]

So many squadrons would certainly have strained Canada's resources in aircrew and groundcrew past the breaking point, to say nothing of the burdens that would have been placed on the aircraft industries at home and in the United States and Great Britain. Yet Breadner's memorandum illustrated just how unsatisfactory the situation was from the Canadian point of view. This issue was raised during the visit of the minister of national defence, Colonel J.L. Ralston, to the United Kingdom in the winter of 1940-1. Having reassessed Canadian manpower potential and estimated the cost of providing completely Canadian

squadrons, Ralston suggested that it was realistic to form twenty-five RCAF squadrons overseas to join the three already in England. His proposal was accepted almost immediately by the secretary of state for air, Sir Archibald Sinclair, and an agreement was signed by the two on 7 January 1941. Twenty-five RCAF squadrons would join the British order of battle by April or May 1942 if all went according to plan, and Canadian officers would be posted to them as soon as they were qualified. No special consideration was given to the many Canadians who would still remain in RAF squadrons after these units were formed. Any difficulties encountered in implementing this programme were to be discussed the following September.[2]

The question of Canadianization was again raised during the June 1941 visit to the United Kingdom of C.G. Power, the minister of national defence for air. Unsatisfied with the progress made by then, the minister pressed for the creation of Canadian fighter and bomber groups. He also endeavoured to increase the number of Canadian overseas squadrons, arguing that this would better reflect the dominion's potential. The British replied that a bomber group might well be formed in 1942, though a fighter group was doubtful, and they agreed that making room for more than twenty-five RCAF squadrons posed no problems in principle. However, they also emphasized that it was impossible to make immediate, firm commitments because the ultimate size of the air force depended on the availability of aircraft as well as strategic and tactical factors.[3]

There matters rested until September 1941, when the Air Ministry informed the Canadian government that there was in fact no hope for more than twenty-five RCAF squadrons overseas. The combination of lend-lease commitments to the USSR and the recent decision to increase the aircraft establishment of bomber squadrons meant that no aeroplanes were available for new units. Power promised the Cabinet War Committee on 9 October that he would make every effort to reverse this decision.[4] Otherwise the role of the RCAF in European operations would be severely restricted. Capable of raising the manpower for thirty or forty squadrons for overseas service, Canada had no prospect whatsoever of forming them. Quite apart from considerations of national prestige, the long-term implications were clear. As Breadner noted in October 1941:

> Canada, with her present aircraft production (and lack of engine production) and her magnificent air training scheme, cannot be considered in any sense of the term as an Air Power, particularly as most of her training effort is in the elementary or intermediate field, and not operational in the full sense of the word. Abroad her personnel are gradually being organized into Canadian squadrons, some of which are actively functioning in operations, although not through any independent action on Canada's part but entirely, or almost so, through Royal Air Force effort.
>
> The world situation is such that the further continuance of this policy, without the development of air power in Canada, may imperil her position in the future and limit her contribution to the general cause.[5]

Another irritant affecting Canadian perceptions of the BCATP Agreement, one

no less important in terms of Canadian self-esteem and identity, was commissioning policy. In December 1939 the question of how many aircrew should be commissioned had been left vague, the provision being simply that 'a number of pilots and observers' would be selected as officers from among BCATP graduates. More definite guidelines were established in July 1940, and Home War Establishment promotions were pegged to lag slightly behind those overseas, as Air Force Headquarters did not want personnel serving in Canada to have any advantages over their comrades in more active theatres.[6] However, the RAF quickly fell behind the commissioning schedule established for Canadians serving in British squadrons. Power was soon aware of this, and of the reasons why. Some squadron commanders were apparently unaware or unsure of the procedures involved in promoting Canadian non-commissioned officers [NCOs], while many more proved simply lethargic. These faults could be corrected in time, and with the proper distribution of regulations, but there was another explanation which was difficult to excuse (at least so far as Canadians were concerned) and for which no ready remedy existed. The RAF, it seemed, was loath to commission Canadian airmen who did not meet the standards set for British officers and gentlemen.[7]

Upset by the RAF's failure to keep its word, by the British attitude to Canadian NCOs, and by his own government's impotence to rectify the situation, Power had sought to amend the commissioning formula when he met Air Ministry officials in June 1941. He failed. Commissioning half of the pilot graduates was 'proceeding too far at present,' the British said; the policy should remain as it was, although its implementation could be improved.[8] Meanwhile, Power continued to receive a flood of complaints from airmen at home and abroad. Of the former, the most deserving were the better graduates of the early BCATP courses who, posted to flying training schools as NCO instructors, were now seeing former students returning to Canada as officers.[9] Like the question of the size of the RCAF overseas, this was not an issue to be brushed aside easily. Nor did the government care to.

The need for a major review of air training policy some time in 1942 or early 1943 was built into the original BCATP Agreement, which was due to lapse automatically on 31 March 1943. The first formal recommendation for negotiations to prolong the training plan seems to have been made by Air Vice-Marshal E.W. Stedman, the RCAF's air member for aeronautical engineering, as early as 7 April 1941. At that time the outlook for the British and their Commonwealth Allies was bleak. France, the Netherlands, and Scandinavia (except for neutral Sweden) had all fallen to the German juggernaut in 1940. Romania and Hungary had been enlisted in the enemy cause and – only the day before Stedman put pen to paper – the Germans had launched attacks against both Yugoslavia and Greece. The United States was still neutral and apparently likely to remain so; Hitler had not yet made the fatal mistake of attacking the Soviet Union; and he was master of Europe. His Italian allies were threatening Malta and his Spanish friends debating whether to attack Gibraltar, the two keys to the Mediterranean. The Atlantic lifelines holding the British alliance together looked particularly insecure in the face of growing U-boat attacks.

Stedman's concern, however, was not with the number or disposition of students who would have to pass through the training pipeline, but with the future availability of aeroplanes in which to train. Manufacturers, he pointed out, had to be informed of future requirements well in advance in order to adjust or retool production lines to provide the appropriate aircraft when needed. Having heard that American factories were fully committed to June 1943, he feared that if orders for more aircraft were not placed in good time the BCATP would find itself without sufficient training machines.[10] Canada could not place orders without consultation with her partners.

'Chubby' Power acted on Stedman's report in June, when he visited the United Kingdom. Although the future status of the RCAF overseas was the major reason for his journey, he told Prime Minister Mackenzie King that he would also pay close attention to the supply of aircraft to the BCATP.[11] His trip was a great success in the latter respect; the Air Ministry was easily persuaded of the urgent need to work out procedures for procuring new aircraft. The British volunteered to contact the other participants in the BCATP and ascertain their views on holding talks to consider the extension of the plan.[12] On 23 October 1941 Malcolm MacDonald, British high commissioner in Ottawa, reported that New Zealand and Australia would also be invited to attend a conference in London.[13]

The Commonwealth's response was a source of great relief to J.L. Ilsley, Canada's minister of finance. All decisions relating to the purchase of new training aircraft could now be safely postponed until after a new cost-sharing formula had been agreed to, he told the Cabinet War Committee. The suggestion that the discussions be held in London was, however, a different matter, and at its meeting of 29 October the committee decided to make representations to the Air Ministry to hold the proposed conference in Ottawa.[14] The government's strong stand on this question reflected the importance of the BCATP as a symbol of Canada's wartime achievement. 'As you know,' Power later wrote to MacDonald, 'the Commonwealth Air Training Plan ... had to be sold to the Canadian people.' 'It was not generally understood,' he continued, 'and until such time as it was in actual operation, it was looked upon with more or less skeptical derision.'[15] The Cabinet doubtless saw the publicity that would result from a major conference on air training in Canada as a useful corrective to such attitudes. Once national objectives of this kind were involved, however, it was unlikely that any meetings on the BCATP's future could be limited to a simple rebalancing of accounts or the supply of aircraft.

On 3 November 1941 the Canadian government suggested to the United Kingdom that Ottawa would be a more appropriate conference site for extending the agreement since so much air training was concentrated in Canada. When no reply was received, the suggestion was repeated on 20 December. Again there was silence until 20 January 1942, when MacDonald reported that his government now believed that the conference should be postponed until the effect on Allied air training requirements of Japanese and American entry into the war could be assessed. There was logic in the British view. It was entirely possible that Australia and New Zealand would have to withdraw temporarily

from the BCATP in order to strengthen their own defences against Japan. Moreover, soon after the Americans joined the fight it had been agreed that policy relating to the allocation of aircraft would be a matter for the combined Anglo-American Munitions Assignment Board. Thus a purely Commonwealth conference, even at government level, might be powerless to implement any aircraft supply decisions. This was, after all, the reason why Canada had first proposed talks. However, a limited service-to-service conference might prove useful without interfering with higher Anglo-American planning or offending dominion sensibilities. MacDonald suggested talks on this basis.[16] Its conclusions could be put before the Combined Chiefs of Staff for approval, as with any other staff study. In the meantime, the Air Ministry went ahead with its own Empire Training Conference in London at the end of January, with American observers present.[17]

The Canadians were not dissuaded. The very events predisposing the RAF to put off a substantive review of the agreement had in fact hardened Canadian opinion that the future of the BCATP must be examined forthwith. Possible Australian and New Zealand reassessments of their commitments threatened the plan's continued operation at existing manning levels, as did the probable ending of American recruiting for the RCAF. There was also a good chance that some BCATP airfields would have to be turned over to the RCAF for operational use, which meant that there might have to be an entirely new construction programme. More importantly, the Americans had imposed a ban on the release of aircraft, engines, and spare parts to her allies as a result of Pearl Harbor. If this were not rescinded, any discussion on the supply of training aircraft would be entirely academic. If the ban on shipments continued, Power told his War Cabinet colleagues, it was doubtful whether the BCATP could be expanded, or training maintained, for 1943 and 1944. Finally, he had heard reports that shortages of operational aircraft in the United Kingdom were creating a surplus of pilots there and that the Air Ministry would soon be asking for a decrease in the rate of BCATP output.[18] It was thus in Canada's best interests to go ahead with a conference so that authorities would have a clearer idea of the BCATP's future, he told the British on 7 February.[19]

A competing proposal had already surfaced. On 20 December 1941 the American representatives to the Permanent Joint Board on Defence had startled their Canadian colleagues with a recommendation 'that the Canadian and United States Governments should consider the advisability of arranging for a meeting of appropriate representatives of Great Britain, Canada and the United States to make appropriate recommendations for co-ordination of the entire aviation training programs to be conducted in Canada and the United States.'[20] The Americans had been vague, giving neither the reason why nor the extent to which co-operation was desirable. When questioned they said only that there was a need to explore whether North American facilities were being put to the best possible use. In the rarefied atmosphere of the PJBD it was perhaps not good manners to press too hard, and the Canadians had accepted the recommendation on that basis. However, here was an apparent call for action that might interfere with Canada's desire to hold a Commonwealth air training conference.

Things seemed a little clearer in January after the chief of the air staff had had an opportunity to talk with the deputy chiefs of the American naval and air staffs. Asked to explain what 'was behind' the board's 23rd Recommendation, these officers replied that there was nothing 'other than possibly the thought that the R.C.A.F. might like to avail themselves of the mild weather in the Eastern States and establish training stations there for use during the winter months.' Since he saw no reason for this, Breadner suggested that Canada 'should not initiate discussion on this subject.'[21] Power had already come to the same conclusion, and the matter was easily passed over at the Cabinet War Committee meeting of 23 January.[22] In fact, as the Canadian air attaché reported on 10 March, the reasons for American interest were much different. According to Major General Stanley Embick, senior US service member of the PJBD, the Americans feared that there were too few facilities in the United States to support the expansion of its air forces. Later, on 25 March, he reported that while the Americans had room for their own training, they wanted to transfer all British training to Canada.[23]

Meanwhile, Canadian concern grew considerably in February 1942 when it was learned that the American and British navies had been talking about training Fleet Air Arm pilots in the United States without informing Ottawa. Further, the War Department had issued General H.H. Arnold, chief of the US Army Air Forces, with a directive that, to Canadian eyes, looked very much as if the United States wished to assert a measure of control over all air training. Arnold proposed to arrange his own meeting of American and British 'aviation training people' to review all facilities in North America.[24]

Power was extremely unhappy with these American initiatives because they would inevitably 'complicate' things.[25] Canadian leadership in air training would be undermined if a separate Anglo-American agreement were reached, or if the Americans took the lead in a co-ordinated programme of North American training. The obvious solution was to ask the Americans to the proposed conference in Ottawa. This would not only satisfy the spirit of the PJBD's 23rd Recommendation, but also increase the Americans' awareness of the scope and importance of the BCATP to the point where, it was hoped, they could be easily convinced of its need for US training machines.

Unfortunately, the British disagreed. The Air Ministry felt that the development of a comprehensive plan for air training in North America would be sound, but only if it was 'confined to co-ordination with a view to avoiding overlapping and duplication of training effort' and did not involve the Americans in any decisions relating to the BCATP.[26] Unable to reconcile the conflicting approaches, still unsure of American objectives, and unwilling to sacrifice a Canadian-sponsored conference in favour of meetings in Washington, Power decided to caution his staff to 'on no account ... do more than listen to suggestions.'[27] The RCAF was not to propose anything, nor respond to any suggestions Arnold might make.

Arnold's purpose seemed somewhat clearer on 10 March 1942, when the air attaché in Washington reported that the Americans were probably looking for extra training facilities in Canada.[28] However, it was not certain that the dominion could accommodate them, as Canadians were already hard pressed

trying to find space for additional RAF schools which the British wanted to transfer to Canada. With space and new training aircraft likely to be at a premium, there was an even greater need for a conference to set priorities.[29]

The British now took the initiative. While still maintaining that conditions were not ripe for a full air training conference, on 10 March they offered to sort out the aircraft procurement question at an informal gathering in Ottawa later that month. Although Treasury officials would be part of the UK delegation, the talks would be on an almost exclusively service-to-service basis and limited to the supply of training machines to the BCATP. Aware that the Canadian government was likely to view this meeting as an unsatisfactory half-measure, the British took care to reaffirm their commitment to a major policy conference when conditions permitted. They also promised that any decisions on procurement taken at the proposed mini-conference would not prejudice subsequent amendments to the plan's cost-sharing formula. Thus insulated against full financial responsibility for new training aircraft, Canada accepted the British proposition.[30]

Power nevertheless had only a slight interest in the upcoming talks. As he told the Cabinet War Committee on 18 March, too many matters of high policy were still outstanding that could only be resolved at a government-level policy conference. The minister therefore proposed to cable the Air Ministry asking it to reconsider its stand.[31] As it happened, a message was received from London the next day which indicated that the British were at last prepared to accommodate the Canadian government. Noting politely that the dominion had been raising the point since the fall of 1941, the deputy prime minister and dominions secretary, Clement Attlee, informed Mackenzie King that it was now time to discuss the extension of the BCATP beyond March 1943 and to work out the best way to complete the transfer of RAF schools to Canada. Opinion in London regarding transferred schools was, he added, beginning to shift to the view that they could be placed under the plan's umbrella.[32]

Attlee's tact was welcome but could not by itself overcome long-standing Canadian objections to the manner in which the British had so far approached the need to amend the air training plan. Anxious to clarify these matters before a reply was made, as well as to vent his own frustration at the lack of progress, Power sought an interview with Malcolm MacDonald. The Canadian began with a strong statement that he and his colleagues were 'not at all satisfied' with the purely service talks on aircraft supply then underway in Ottawa. As he had predicted, discussion had inevitably involved issues of high policy beyond the competence of the RCAF's representatives and so was of little value. Power then turned to the fact that the British had been talking to the Americans without informing Canada, indirectly challenging the logic of Britain's apparent eagerness to embrace the United States in this instance when, at the same time, the Air Ministry objected to including the Americans in the air training conference.[33] MacDonald admitted that Canadian dissatisfaction was justified in many respects. Several issues had to be clarified, among them the status of the RCAF overseas. To this end, he told Power, the Canadian draft reply to Attlee - which made all the points that Power was making now, but rather less bluntly – hit the mark nicely.[34]

Power then told the high commissioner that Canada was not eager to have more RAF schools because of the administrative burden these would entail. It would be far better to absorb them into the BCATP if and when they were transferred. Finally, the minister turned to the question of commissions and the unsatisfactory pace of promotions for Canadians overseas.[35] MacDonald made no comment on this complaint, but he faithfully reported the Canadian point of view to his government, highlighting two issues: Canada wanted the RAF schools incorporated into the BCATP, and she was determined to have the United States represented at any air training conference.[36]

It was now the turn of the Air Ministry to be upset. H.H. Balfour, undersecretary of state for air, thought (in an internal Air Ministry memorandum) it was unfortunate that Canada was taking such a strong stand on American participation as most of what had to be discussed about the BCATP was of a 'domestic' nature, of interest to the plan's Commonwealth members alone. He warned of morale problems if the RAF schools were brought under the BCATP framework; so far as he could tell the staff and students at these units strongly favoured retaining their RAF identity. Absorption of the RAF schools into the BCATP would increase personnel costs and lead to pay and allowance headaches for the Air Ministry. He went on to assess the Canadian mood fairly accurately; judging from recent correspondence and MacDonald's meeting with Power it was evident that the latter was annoyed and standing firm on what he regarded as first principles. Worse still, Balfour discerned that there was even an element of distrust in the dominion's attitude to the Mother Country.[37]

On 4 April the British informed Norman Robertson, the undersecretary of state for external affairs, that they had at last accepted Canada's request to have the United States represented at the forthcoming conference. MacDonald had to point out, however, that his superiors still insisted that there was no compelling reason for the Americans to be party to negotiations over the transfer of RAF schools, the refinancing of the BCATP, or any other such domestic issue. Accordingly, London was recommending that the conference be organized in two parts, the first to deal with the BCATP, and the second to investigate larger issues such as the co-ordination of North American training. The United Kingdom would nonetheless leave it to Canada to decide whether this was the best course to follow.[38]

Canadian officials were unhappy with the British desire for a split conference. With the United States continuing to press for co-ordination of North American training, and with Canada increasingly dependent on the US for aircraft, engines, and spares, it seemed distinctly unwise to give any impression that there was a Commonwealth 'caucus' whose object was to present the Americans with a 'united front' of carefully worked out positions. Arguing that this was one area where Canada could 'properly take the initiative,' Robertson advised King to reject the British alternative and to insist that the Americans be included from the outset. The British were right in contending that the United States had no business with the internal workings of the BCATP, but there was a simple solution to that problem. Rather than have everything discussed at plenary sessions, it might be better to create a number of subcommittees to handle specific items on the agenda and have these groups report to the full conference. The Americans

could be excluded from the pith and substance of purely BCATP discussions without being left out entirely. This seemed reasonable to MacDonald.[39] Less justifiable, in the British high commissioner's view, was Canadian persistence in seeking a more generous commissioning policy. Thus, even though Power (whom MacDonald described as being 'very touchy' on the issue) now offered a small compromise, stating that he would be satisified if 50 per cent of aircrew received a commission upon graduation from the BCATP, London was advised to pre-empt the Canadian recommendation by instituting strict time-in-rank provisions.[40]

A message from the United Kingdom crossed the one containing this last advice, and so made no reference to Power's latest remarks regarding commissioning policy. However, it indicated that the United Kingdom had at last relented on the question of American participation at Ottawa. The British also accepted the subcommittee formula, although in practice a two-part conference still resulted in May. This removed a major stumbling block.[41] Yet, as things turned out, perhaps the most important fact about this message was its time of arrival. Received on 11 April, the British response unknowingly helped Canada to 'ride ... off,' as MacDonald put it, a formal invitation from the United States to attend a multilateral air training conference in Washington on the 15th.[42]

This invitation, sent on 2 April from General Arnold to Air Vice-Marshal Breadner, was the last in a series of somewhat mysterious and even bizarre events reflecting an on-again-off-again American interest in co-ordinating North American air training.[43] With the pressure from Washington having abated, Canadian officials appear to have decided that it was best not to mention anything to the Americans about the forthcoming Ottawa conference before the British had approved their participation. Arnold was therefore ignorant of Canadian plans. His sudden invitation to Breadner to take action on the PJBD's 23rd Recommendation in two weeks' time came as a shock to the air staff, not least because the RAF was also invited. It was also unwelcome on this account. Although a conference in Washington in April would not prevent Canada from holding one in May, it would nevertheless have to cover much of the same ground and so weaken the impact of the Ottawa gathering. Canada's symbolic position as the leader in Allied air training might also be threatened, particularly if the venue facilitated Anglo-American accords affecting the BCATP.

Whether Ottawa believed that the best response to this unwelcome invitation was to ignore it, or whether it simply took time to compose an appropriate reply, is not clear. In the event, nothing was done before the PJBD meeting on 8 April, at which time the Americans took an uncomfortably and disturbingly hard line, announcing that Washington had 'serious concern over the non implementation of the [PJBD] recommendation.' The Canadians at once responded that the issue could be settled at Ottawa in May, but this did not satisfy General Embick or his staff. In fact, the US Navy's representative warned, the ban on shipments of aircraft and engines would continue until action had been taken.[44] Breadner was mystified by Arnold's invitation and by the toughness of the American position. Why, he asked, were the US services so adamant about holding a conference in

Washington in April? It took four days to find the answer; apparently the entire American training programme was being held up pending the outcome of the proposed conference. By that time Canada had rejected the American invitation and the United States had decided to proceed on its own with or without an Allied conference.[45]

Malcolm MacDonald was probably right when he reported that the Canadians were buoyed by the British agreement to a May conference in Ottawa, and that this influenced their decision not to go to Washington. Whether this in turn influenced the American decision to go ahead independently with their own training is more difficult to determine. One thing is certain. In his response to Arnold, Breadner had emphasized that Canada was not closing the door on multilateral discussions of air training; it was just that the Canadian government was insisting that they take place at the political level rather than between representatives of the armed forces. All this would be made much clearer when Mackenzie King visited President Roosevelt in one week's time. Meanwhile, Breadner suggested, Arnold and his staff should visit BCATP facilities in Canada as preparation for the Ottawa conference in May.[46] Arnold, who was holding discussions with British officials about aircraft allocations, rejected the invitation. However, Major-General Barton K. Yount, the chief of the USAAF's Flying Training Command, and a small party arrived in Ottawa on 22 April for a quick three-day tour of nearby training facilities.

The prime minister's visit to Washington was crucial in defining the character of the forthcoming air training conference. Invited to attend the first meeting of the Pacific War Council – a purely political forum created to enable representatives of the lesser Allied powers to receive confidential briefings on the course of the war from time to time – King was also asked to come to the White House on the night of 15 April so that he and President Roosevelt could have 'a quiet evening together.'[47] Roosevelt turned out to be in an 'expansive mood,' proclaiming that Canada should have a seat on the Munitions Assignment Board, an offer that was never repeated. King took full advantage of the occasion to describe the BCATP and the benefits of having American participation at the May conference.[48] Roosevelt later told Churchill that he had agreed to the Canadian proposal because 'no harm, and a good deal of probable good' was likely to result, and because King was so 'very anxious to have something to show for his Washington visit.'[49]

King proposed that the meetings take place in Ottawa, not Washington, and that they be attended by both ministers and service representatives. Roosevelt was willing to accommodate King on both scores. However, the president was also determined that the meetings be as broadly based as possible, so that when the prime minister asserted that South Africa, Australia, and New Zealand would have to attend, the president replied that 'other countries of the United Nations ... training pilots on this continent' should also be invited. Norway, China, and the Netherlands were singled out that night, but by the next morning the list of participants had grown considerably. The press release issued by the two leaders explained that 'The Prime Minister of Canada and the President announced today that, at the invitation of the Prime Minister, a conference in

which all of the United Nations with Air Training Programmes would be invited to participate would be held in Ottawa early in May ... the Conference developed out of the recognition of the desirability of more closely co-ordinating the British Commonwealth ... Air Training Plan with the greatly extended Air Training Programmes undertaken by the United States and the other ... United Nations ... these will include China, Norway, The Netherlands and several others ... already at war with the Axis.'[50] With both leaders emphasizing the need to co-ordinate air training in North America, Roosevelt had the means to implement the 23rd Recommendation of the PJBD. King, of course, had his conference.

Canadian officials were genuinely surprised by the unforeseen expansion of the conference to include a host of minor powers. The Canadian representative in Washington questioned the wisdom of the last sentence of the release, but feared that it was 'too late to secure its change.' Invitations would therefore have to go to Poland, Czechoslovakia, South Africa, Yugoslavia, India, and the USSR, as well as to those nations mentioned in the communiqué. In addition, Washington was to be asked to recommend which of the Latin American countries would attend, while London would provide information on 'which of the other United Nations have embarked on air training programs.'[51] Eventually the Free French and Belgians were added to the list because they were represented in the RAF schools.[52] The extreme case came when the conference planners had to hold up their invitation to the Greek government-in-exile because they suddenly realized that they did not know if Greece had an air force.

The problem was what to do with all these delegations, most of whom did not conduct their own air training, simply supplying aircrew candidates for others to train. Canada hoped that the majority of countries would be satisfied with having only observers present. As might be expected, however, a number objected to such second-class status. As the Norwegians pointed out, the occupied countries faced one unique problem that would have to be solved some time. Cut off from a guaranteed flow of recruits, they would find it impossible to keep existing squadrons up to strength unless permitted to tap new sources of manpower – nationals now resident in the United States, Canada, and the other Allied powers. Since all these countries would be meeting in Ottawa, the May conference seemed a perfect opportunity to speak to this point. Unwilling to offer equal status to all, but mindful of the Norwegian complaint, planning officials in Ottawa chose to set up a special subcommittee to discuss the situation confronting all the smaller powers. The other subcommittees, agreed to by Canada and Great Britain some time earlier, would deal with major topics including aircraft production, methods of instruction, and co-ordination of training. Care was taken, nevertheless, to ensure that control of the conference remained in the hands of the 'major' powers. A 'conference committee' of Canada, Great Britain, the United States, Australia, and New Zealand, and one European country, would manage affairs and act as intermediary between these subcommittees and the plenary meetings.[53]

As host nation Canada was to prepare the agenda, a fact which gave her the advantage of ensuring that those issues of paramount importance to her would be

discussed. So far as the BCATP itself was concerned three specific problems stood out, the most important being the supply of aircraft after March 1943. A cost-sharing formula would have to be arrived at with the British, while the United States had to be fully informed of (and preferably impressed with) the scale of Canadian air training so that there could be no mistaking the requirement for aircraft. The Canadian government also had some qualms about reports that courses would be lengthened in order to reduce the surplus of aircrew overseas, fearing the possibility of severe morale problems when trainees were forced to put in yet more time before their graduation. Canada would have to deal with the consequences, and the Cabinet secretary, Arnold Heeney, asked Mackenzie King to insist upon a full explanation before acceding to any changes proposed in the training schedule.[54] Finally, there was the question of whether and how training capacity in Canada could be increased to accommodate the additional British needs and the possible relocation of some American schools to Canada. Should the RAF schools be absorbed in the British Commonwealth Air Training Plan? And, if the United States wished to conduct training in the dominion, did that mean that the British, American, and Canadian programmes should be fully co-ordinated, permitting free interchange of personnel? Although this prospect seemed increasingly unlikely, there had been no authoritative statement from the Americans that they did not want to train in Canada, and rumours to that effect persisted.

These questions could not be discussed in a vacuum. The flow of students through the BCATP would depend ultimately on the availability of operational aircraft and the need for aircrew overseas, as well as the supply of training machines. Following from this dependency, it seemed essential that the Americans and British disclose their strategic plans, future aircraft allocations, manpower resources, and casualty estimates in order to provide sound statistical underpinning for the conference deliberations. This created problems for both the British and Americans, both of whom were understandably reluctant to broadcast their intentions to such a miscellaneous audience, particularly when they themselves were not in full agreement. In the end each asked Canada not to press for such details, and the information that was made available to Canada was very limited. It did not, for example, deal with expected aircraft production and allocation.[55]

Canadian interest went further than these training matters. It was also important to secure American and British support for the recently approved expansion of the Home War Establishment as they would have to supply most of the aircraft required. Finally, there was the question of the RCAF overseas. The issues of commissioning policy and the formation of Canadian squadrons abroad continued to plague the government and air staff, and since both resulted from the BCATP Agreement the dominion felt that both should be open for discussion and renegotiation at the conference. As Sydney de Carteret, deputy minister of national defence for air, told Norman Robertson, the British must be made aware of Canada's wish to exercise maximum control of the RCAF overseas 'consistent with the maximum efficiency of our united efforts,' and with the principle that 'Canada's quota of squadrons should be

increased in keeping with the increased effort and finance that Canada is putting into training.'[56]

That the Canadian delegation would indeed take a strong stand at the conference was practically guaranteed when Air Vice-Marshal Harold 'Gus' Edwards was granted permission to take part. Commanding the RCAF overseas since November 1941, Edwards was a firm and sometimes intemperate proponent of Canadianization, and he announced that his main objective was to elaborate on the 'many difficulties' he had encountered as he endeavoured to carry out the policies of the Canadian government.[57] Although these 'overseas' issues were to play an important part in the Ottawa talks, they did not bear directly on the role and administration of the BCATP and are left for detailed consideration in the third volume of this history.

The British, naturally enough, had their own expectations of the conference. Like Canada, they placed a premium on the co-ordination of air training in North America, although for very different reasons. For where the RCAF hoped to achieve a common standard, whatever it might be, to accommodate American training in the dominion, the Air Ministry and the Admiralty aspired to convince the Americans to adopt British practices so that the RAF and Royal Navy trainees on course in the United States would be ready for operational postings soon after they graduated. Far more serious was Canada's insistence on bringing up the matter of commissions. If, as expected, the dominion demanded commissions for all aircrew, the Air Ministry's position would be all the more uncomfortable, but there was nothing anyone in London could do.[58]

The Ottawa Air Training Conference opened on the morning of 19 May. After reviewing an RCAF Guard of Honour, Mackenzie King welcomed the delegates in the Senate chamber. Noting that 'it would be an advantage to the common cause to have the widest possible use made of the experience gained in Canada, in co-operative air training,' he reminded delegates of the importance of North America to the war. It was, he stated, a centre of gravity on account of its interior lines of communication. The other heads of delegation echoed these remarks. Balfour, representing Great Britain, spoke of Canada as 'the hub of air training around which revolves the ever-widening circle of world battle,' while Robert A. Lovett of the United States passed on President Roosevelt's description of Canada as 'the Aerodrome of Democracy.' Congratulatory remarks followed too from the rest of the countries attending and then, as prearranged, Power was elected as conference chairman and Arnold Heeney as secretary.[59]

The first order of business was to establish the several committees previously agreed to by Canada, the United States, and Great Britain. Power headed the all-important Conference Committee, which would co-ordinate the work of the whole conference; Baron Silvercruys of Belgium led the General Training Committee, the body formed to allow the occupied nations to discuss their problems; the Committee on Standardization of Training was chaired by Air Marshal A.G.R. Garrod, air member for training in the Air Ministry; and his Canadian counterpart, Air Vice-Marshal Robert Leckie, had the Committee on Composition of Aircrew. The other two special committees, Co-ordination of Training Capacity and Manpower Resources, both went to Americans,

respectively to Captain A.W. Radford, director of training in the US Navy's Bureau of Aeronautics, and Colonel R.E. Nugent, of the War Department General Staff.[60]

Reversing the suggestion made by the United Kingdom when it had accepted American participation, items of interest to all participants were discussed first, with purely BCATP matters left until later. These initial meetings revealed that there were many similarities in the training carried out in Canada, the United States, and Great Britain, and that the differences found to exist did not call into question the basic approach taken by any one training programme. There were few attempts to standardize or work towards co-ordination of the various training programmes. The British placed the blame for this failure squarely on the United States and its determination to build up a wholly independent air force. American representatives, it seemed, had been given instructions so 'rigid' as to preclude an honest attempt at co-ordination. However, the RAF was just as convinced of the effectiveness of its air training program, no more open to advice, and equally unwilling to make changes.[61] The one bright note came when the special Committee on Co-ordination and Training recommended the creation of a standing committee to work towards increased standardization of air training among the Allied powers.[62] The resolution received unanimous support in plenary session: there was to be an advisory committee in Washington, chaired by a senior American officer, to ensure that North American training capacity was used efficiently and that there was as much co-ordination of effort as possible. Canada, the United States, and Great Britain would be the only permanent members, but other countries could appear before the committee to make requests or to seek solutions to their problems.[63]

The press release issued at the end of the conference stated that 'The Conference has given most careful thought to the means by which the training capacity of the United Nations can be co-ordinated. Alterations in requirements ... may alter the position at any time, thus involving training adjustments of considerable magnitude. With this probability in view, and with the further object of ensuring a rapid and effective interchange of information regarding training generally, the Conference has approved the formation of a Combined Committee on Air Training.'[64] As things turned out, the exchange of information was scarcely 'rapid.' The Canadians were eager enough, choosing their representative, Air Vice-Marshal Leckie, in July, but they ran into a wall of disinterest in Washington.[65] At first the Americans explained that the government had not yet approved the conference report; then the question was apparently 'complicated' by Mexico's entry into the war.[66] Finally, on 23 September 1942, the American ambassador in Ottawa reported that the committee had been approved, that Major-General Yount would chair it, and that Captain Radford would represent the US Navy.[67] This did not mean that an actual meeting was any closer. The British would not call one on the grounds that the initiative should come from the United States since the committee had been established 'mainly to meet announcement by President Roosevelt that Ottawa Conference would promote co-ordination of air training.'[68] Nor were the Americans any readier. When General Yount disclosed in January 1943 that

only the director of individual training had authority to convene a meeting, that officer responded that the Combined Chiefs of Staff must make the request.[69] They did not do so, and thus nothing happened until 26-27 April 1943, when the committee finally assembled in Washington. Thereafter it met at least seven times before the end of the war, alternating between Canada and the United States.

The effectiveness of the committee is open to question. C.P. Stacey argues that its work was useful but very limited, as 'North American training facilities were never pooled and ... no US air training was carried on in Canada.'[70] The United Kingdom Air Liaison Mission concluded, however, that the Combined Committee 'provided a link of the greatest value ... and, unquestionably, was a great stimulus to the development of air training on the soundest lines and on approximately a common basis.'[71] 'Approximately' is clearly the important word here. Just as North American training facilities were not pooled, neither were training programmes closely co-ordinated. Simple exchange of information seems, then, to have been the only achievement of the Combined Committee. So far as Canada was concerned, the committee failed in one other area – there is no evidence suggesting that it made the United States any more sympathetic to the dominion's requests for training aircraft.

When the BCATP segment of the Ottawa Air Training Conference got under way, on 22 May, there was unanimous agreement that the plan should be extended beyond March 1943. It was thought that there might have to be some curtailment of training because of shortages of operational aircraft overseas and reduced pilot requirements owing to changed bomber crew composition.[72] Should such curtailment occur, Canada's role as the 'aerodrome of democracy' would be protected by the conversion of some flying schools to operational training units. In the immediate future the need for better trained bomber pilots would add a few more flying training schools to the plan. These and other new and transferred units would expand the British Commonwealth Air Training Plan to seventy-three training schools (of which twenty-one would have double capacity) and four RAF operational training units.[73] As a result, it was estimated that 3000 aircrew could be trained to 'wings' standard each month.

Moreover, all this activity would come under Canadian control. Although the British considered 'that the RCAF lacked the administrative resources to undertake this additional burden,' and had hoped to keep the RAF schools separate from the BCATP, in the end they bowed to Canadian wishes for the incorporation of these units. They were to be brought under the BCATP umbrella and the EFTSs 'civilianized,' although their national character would be protected by the continued employment of uniformed RAF instructors.[74] Canada thus had the total responsibility for air training she had always wanted, while the RAF retained at least some of its separate identity.

The projected costs were staggering (an estimated $1,446,318,000 to carry on training until 31 March 1945), yet the sharing formula was easily devised. The formidable book-keeping involved convinced Canadian officials to accept a more straightforward arrangement. Power may have been leaning in this direction already. He told the House of Commons on 13 May that the simplest

course was to consider existing accounts 'all square' and to start again on an uncomplicated per capita or block-sharing arrangement.[75] In the end Great Britain agreed to pay half of the total cost (mostly in kind) less the per capita shares of Australia and New Zealand, which between them amounted to 5 per cent. Canada would look after the rest. Unlike the terms of the initial agreement, the dominion now had the authority to purchase whatever equipment and supplies might be required without consulting her partners. Any expenditures beyond the accepted estimates would be settled after the war.[76]

Most conferences involve conflict and compromise. The Ottawa Air Training Conference was no exception. But before it ended – at 0115 hours on 3 June 1942 – Canada had secured greater control over the BCATP, including the integration of British schools into the plan, and this second Commonwealth air training conference had moved the RCAF some way down the road to maturity and independence. Moreover, it had done so in a spirit of friendly co-operation despite the distrust and ill-feeling that had marked some of the preliminary negotiations. Having expected the worst, Malcolm MacDonald was surprised and delighted by Power's 'constructive' attitude throughout the proceedings; in fact, he reported to Clement Attlee, it seemed that the Canadian minister's 'Irish-French' antipathy to the Air Ministry had been attenuated, and that the United Kingdom had won a new friend.[77] Power came away from the talks in equally good humour, and his concluding remarks about the conference's 'good-will,' 'toleration,' and 'spirit of friendliness and comradeship' had the ring of sincerity.[78] Vital commodities in any coalition war, these qualities were no less important for the harmonious operation of an Anglo-Canadian relationship that could too easily be taken for granted.

The new BCATP Agreement was signed in Ottawa on 5 June 1942 and became effective 1 July. It extended the plan until 31 March 1945. Australia and New Zealand agreed to maintain annual student quotas of 2912 and 1841, respectively. The United Kingdom undertook to provide 40 per cent of the combined establishment's capacity; the British quota was to include pupils from other parts of the Commonwealth and Allied countries, some of whom had already started to arrive with the transferred RAF schools.[79]

The revised agreement also solved the commissioning policy to Canadian satisfaction. Percentage limits were retroactively removed for RCAF pilots, observers, navigators, and air bombers. All Canadian graduates in these trades who were considered suitable could be commissioned, though under rules designed to minimize overseas disruption in the RAF. The commissioning percentages for RCAF wireless operators (air gunner) and air gunners remained unchanged except for some additional flexibility in regulations. These last limitations were removed two years later, in June 1944, but since standards were raised considerably in the interval, the percentage commissioned in these two aircrew trades remained relatively unchanged. When the first course of RCAF flight engineers graduated that year, a percentage received commissions in accordance with existing standards. In late 1944 the standards were raised a final time in order to reduce further the percentage of commissions granted to graduating RCAF personnel. All these changes applied only to Canadians; RAF,

RAAF, and RNZAF members continued to be governed by the pre-June 1942 percentage limitations, though subsequent agreements confirmed the right of Australia and New Zealand to determine their own commissioning standards as well.[80]

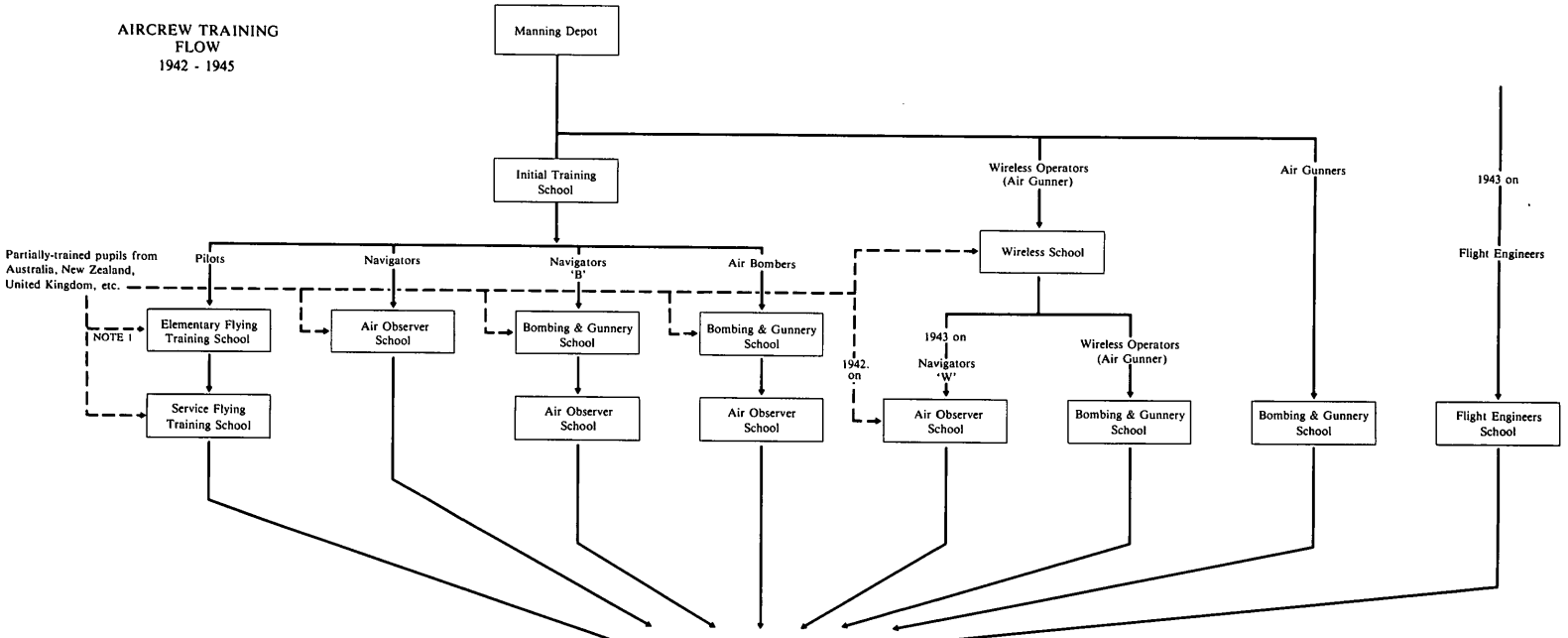
Meanwhile, aircrew trades were adjusted to reflect changes in bomber crew composition in the RAF's operational force. Bomber Command was still expanding and experiencing difficulty in obtaining sufficient pilots from its operational training units. Suggestions to solve this problem by using only one pilot in medium and heavy bombers emerged as early as April 1941, and were finally adopted as policy in March 1942 after interim solutions proved wasteful and ineffective. After some discussion, flight engineers, then crew members on many types of large aircraft, were chosen to act as pilot's assistants in emergencies. The work of other bomber crew members was also re-examined. The RAF decided to use only one fully qualified wireless operator in medium and heavy bombers instead of two,[81] and, in a more radical move, split the air observer's trade into its two principal functions: navigating and bomb aiming. Future training was to produce specialists for each task. This last change, designed for the medium and heavy bomber force, was unsatisfactory elsewhere, and some training had to continue for the equivalent of air observers, navigators 'B,' who could carry out both functions, as well as for a new trade combining navigation with wireless operating, the navigator 'W.'[82]

These operational changes were soon reflected in the BCATP. The training of navigators began in March 1942 with the phasing out of the air observer trade. After initial training school, navigators spent eighteen (later twenty) weeks at air observer school in a course which incorporated the astronomical navigation extension formerly taught at the Central Navigation School. The training of navigators 'B' started about the same time. After ITS, these latter attended bombing and gunnery school for six (later eight) weeks (the gunnery portion of the course was dropped in February 1944). After B&GS they took the navigator's course at AOS. Navigators 'B' were intended essentially for coastal operations, and most took a six-week general reconnaissance course before being posted to operational training units.[83]

The adoption of a single pilot in many bomber aircraft, and concurrent OTU course changes, momentarily increased the surplus of newly qualified pilots in the United Kingdom and necessitated slowing the flow from service flying training schools.[84] SFTS courses were lengthened in May. For the first time since the abandonment of the intermediate/advanced squadron system early in the plan, single-engine schools now gave pupils bombing and gunnery training. Subsequently, more emphasis was placed on this subject at all SFTSs. Other course modifications were made as the war progressed, including the addition of training in beam approach – radio landing assistance for lining up with runways in poor visibility – in March 1944.[85]

The first air bombers commenced training in August 1942. After ITS, they took an eight-week (later twelve) course at B&GS for both bombing and gunnery training. As in the case of navigators 'B,' after February 1944 the gunnery portion of the course was dropped. Air bombers completed their training with a

AIRCREW TRAINING
FLOW
1942 - 1945



NOTES: 1. Includes RAF pupils in the combined BCATP.
2. RAF air navigation schools in Canada (not shown) were comparable to RCAF air observer schools.
3. Telegraphist air gunners were also trained for the RN in a single course which produced the Fleet Air Arm equivalent of a WOAG.

six-week (later ten) course at AOS. These airmen also acted as assistant pilots on aircraft without flight engineers and were trained to fly straight and level on a given course in an emergency.[86]

Training started for navigators 'W' in the fall of 1942 to produce a combination navigator, wireless operator, and emergency air gunner for night-fighter intruders. At first the courses were composed entirely of RAF personnel, who received an eighteen-week wireless course in the United Kingdom before coming to Canada for twenty-two weeks of navigation training. RCAF navigators 'W' were introduced in December 1943, selected from the top wireless operator (air gunner) pupils graduating from wireless school.[87]

At about the same time, Canadian training began for flight engineers in response to an Air Ministry request for this aircrew category for RCAF heavy bomber crews. The course was twenty-three weeks long, followed by a seven-week 'type' training course on specific aircraft in Great Britain. 'Type' training was conducted in Canada from July 1944 with multi-engine aircraft provided by the Air Ministry. Flight engineers destined for coastal commands received an extra six-week air firing course.[88]

These trade and course changes caused no significant difficulties. The hectic early years were over. By the end of 1942 the largest construction, supply, and instructional problems had all been solved, and aircrew graduates were being produced in satisfactory numbers in every trade. The training war in Canada had been won.

8
The Plan in Maturity

Training an airman, especially in the key role of pilot, was more complex than that for any other category of fighting man, involving a vast infrastructure that demanded great expenditures of time and money. Yet the growth of the air arm was such that thousands more aircrew were needed each year. Sheer output – 'gearing up' the system to produce the numbers of personnel required – had inevitably been the chief occupation of the builders of the British Commonwealth Air Training Plan.

Quantity, however, was only one half of the training equation. Any assessment of the BCATP must also include an examination of the quality of training received by its graduates. The plan was expected to produce a basic kind of airman; in the case of pilots, one capable of flying advanced training aircraft both visually and on instruments. Operational training and conversion to high-performance service aircraft were the responsibities of operational training units. These were principally in Great Britain, where the RAF brought graduates from the various training theatres to a common standard and prepared them for combat. A certain degree of variance in training was inevitable in an organization as large and diverse as the Empire Air Training Scheme. Training syllabi, produced in the United Kingdom, were common to all the Commonwealth components of the plan, but how closely they were followed and how accurately applied was a matter of national responsibility.

Within Canada, flying standards were set and supervised by the Central Flying School at Trenton. In August 1940 the CFS instituted a programme to report on the quality of instruction in the BCATP's training establishments.[1] Visiting flights of CFS instructors made regular tours of inspection, testing both staff and students of every flying school to determine their shortcomings and suggest remedies. As a result, by early 1942 the officer commanding CFS was able to report that 'the standard expected [for a Class I instructor] is greatly rising and consequently a greater degree of skill is required than possible two years ago.'[2]

Most of those selected for Flying Instructor School [FIS] went there immediately after completing their service training. Although they were the best of the SFTS graduates, they could be posted as qualified instructors with fewer than 300 hours of flying time, most of which had been spent flying training

sequences and drills. They lacked the degree of flying experience that would have impressed upon them the importance of each sequence. As No 1 Visiting Flight pointed out in April 1943, a 'large percentage of Instructors have had experience on training aircraft only, and thus fail to appreciate both the necessity and value of some parts of flying training. They also become somewhat disappointed, confused and bewildered when some pupils of theirs write from overseas, saying they are flying this or that Service type of aircraft and telling them of flying characteristics of which they as Instructors have no knowledge.' As a result, instruction was often 'wooden.' It was noted at both EFTSs and SFTSs 'that there is a great tendency on the part of instructors to teach sequences rather than to use sequences and their demonstrations to teach pupils how to fly ...' The instructor became 'artificial and unconvincing, dull and stereotyped because he fails to link up his demonstration with what actually happens while flying. Many Instructors fail to give their pupils the training they should have because they have little or no knowledge of how to teach, but merely present to the pupil a series of sequences taught to them at F.I.S..'[3]

Unfortunately, the most obvious solution to the problem, posting tour-expired pilots from operational commands to SFTSs in Canada, was not feasible. Those fortunate pilots who survived an operational tour and appeared to have instructional qualities were normally sent to OTUs or advanced flying units [AFUs] overseas where their operational experience was more urgently required.[4] The only solution the CFS could offer, the establishment of a visiting flight of service aircraft to give familiarization flights to instructors, was inadequate and could hardly solve the basic problem of having talented but inexperienced pilots teaching trainees flying drills which they themselves had learned but had never had to apply.[5]

These problems could not be overcome by strict adherence to RAF training manuals, even though it was stressed that these books should be regarded as 'the pilot's bible.' For example, in 1941 the visiting flight reported that 'Spinning was causing considerable concern among instructors in several S.F.T.S.s as indicated by their being definitely uneasy about recovering from spins of more than two turns.'[6] Three years later, the problem remained the same, and staff pilots were found to lack 'confidence during the spin and the recovery ... In many case[s] the Examining Officer had to take over to complete the recovery.'[7] Timidity aside, instructors failed to understand fully the purpose of the exercise. 'Instructors invariably leave the impression they are teaching how to spin an aircraft, rather than how to recognize conditions that might cause a spin, and how to recover as quickly as possible. Demonstrations are frequently harsh and quite unlike anything which might happen in actual flight.' Similarly, pupils were 'being taught to stall an aircraft, rather than to recognize conditions inducing stall and to recover before loss of control.'[8] Low flying and single-engine demonstrations suffered as well. 'At all Schools the bad weather low flying sequence is the only one demonstrated and practised. Many Instructors babble on about apparent skid, slip, increased and decreased speeds etc., in no wind conditions. These should only be pointed out when clearly visible to the student ... Instructor's demonstrations and pupils' S.E. flying

[single-engine procedure in twin-engine aircraft] shows that much is to be desired in the understanding of S.E. practice. ... The main points noted were that the pupils made a wild scramble in the cockpit on one engine failing, going through a form of cockpit check which obviously meant little or nothing to them.' Inexperience and low morale led to a certain lack of dedication among some instructors as well: 'In spite of the emphasis placed upon the importance of Instrument Flying many Instructors are not keeping up their own Instrument practice and in teaching they are prone to stuff a pupil under the hood long enough to put in the time without teaching him how to fly by instruments.'[9]

These conditions were far from ideal, but the BCATP had no choice other than to use the inexperienced, often frustrated products of its own training system. However, such institutional shortcomings were partially overcome by the pupils themselves who spent much of their training flying solo, practising the sequences demonstrated by their instructors. As the RAF discovered in 1940-1 when they cut the SFTS course to a mere ten weeks, the greatest single factor affecting the quality of graduates was simply the amount of flying time they had been allowed. Course length, though, was beyond the RCAF's control; the training period was set in the United Kingdom according to the RAF's manpower needs.[10] At the end of 1941, the British air member for training, Air Marshal A.G.R. Garrod, took several steps to increase the quality of training, including lengthening courses, though still acknowledging the need for more aircrew. He had recently visited Canada, where he noted that the standard of training 'was good and the instructors generally ... of high quality ... school personnel had shown great enthusiasm and drive in their training duties.' He had toured both transferred RAF schools and Canadian ones, he told the Empire Air Training Scheme Committee in London, and found that 'On the whole there was nothing to choose between the two types of schools from the point of view of efficiency of training.'[11] So long as the BCATP produced the necessary quantity of pilots of sufficient quality to satisfy the RAF, there would be few complaints from overseas.

Initially, comments from the RAF on Canadian-trained pilots were very favourable. They had a 'standard [of] discipline and keenness well above average and refreshing influence on unit personnel.'[12] Air Vice-Marshal Robert Leckie, the air member for training, was not satisfied, however, and requested that the OTUs be canvassed for 'frank criticism.' 'There must be faults in the product,' he noted, 'and I would like to get on top of them as soon as possible.'[13] At the end of April 1941, the chief of the air staff, Air Vice-Marshal L.S. Breadner, received an RAF signal stating that the pilots were 'making favourable impression, only shortcomings [were] basic knowledge navigation below UK standard and signalling knowledge and ability poor.'[14] Two months later, the RAF informed the RCAF that further OTU reports stated that the general standard of flying 'has remained good.' However, 'it has been stressed that pupils cannot have too much instrument flying training in view of difficulty which they experience in accustoming themselves to black-out conditions.' (In wartime Britain street lights were never lit. Vehicles travelling after dark could only do so in the faint glow supplied by heavily-screened headlights, and it was a serious

offence for a householder or businessman to allow the slightest glimmer of light to escape through doorways or windows. The intention was to make navigation more difficult for enemy bomber crews, but allied crews flying at night also suffered.) The OTUs also reported the general standard of pilot navigation as 'satisfactory and deficiencies appear in the main to be due to lack of knowledge of modern equipment. Main difficulty continues to be experience in map reading.'[15] A year later, the chief instructor of an RAF air flying unit told Group Captain R.A. Cameron, the RCAF liaison officer, that 'pilots arriving from Canada required only one or two landings by night before being sent solo, notwithstanding the blackout conditions which exist. I was naturally very interested in this comment after all the hull-a-baloo which has been raised about night flying training conditions in Canada.'[16]

In the spring of 1943 the British increased their efforts to gather information on the quality of aircrew being produced by the Empire Air Training Scheme. In May the Air Ministry asked the RAF's Flying Training Command, responsible for all pre-OTU aircrew training in the United Kingdom, to comment upon the skills of pilots trained to service standards overseas and now undergoing more advanced work in Britain. By that time, of course, the BCATP was churning out vast quantities of graduates every month, and eventual Allied victory seemed assured; the Air Ministry could afford to be more choosy about quality. A quarterly return was to be rendered, in order that the ministry might be able 'to give constructive criticism to the overseas training centres.'[17]

The initial Air Ministry return – the bulk of it from 21 Group, whose nine advanced flying units prepared pilots for bomber OTUs, with 23 Group's four AFUs completing the picture – generally found the Canadian-trained pilots' flying ability 'to be low in relation to the flying hours completed.' In addition, navigation was 'found to be of a low standard,' aerobatics were 'generally not well performed,' instrument flying was 'generally below standard,' and the proficiency exhibited during night flying was 'not compatible with the hours of night flying recorded in log books.' By contrast, the Australian-trained pilots were viewed as being 'of a high standard' while pilots from New Zealand and South Africa were of 'nearly as high' a standard as the Australians. The commander of 21 Group, Air Vice-Marshal R.P. Willock, believed that the reports 'help to confirm my contention that the quality of training both in the U.S.A. and CANADA still leaves much to be desired; and I submit that we should neither allow ourselves to be deceived by quantative [sic] production methods nor humbugged by diplomatic or political considerations.'[18]

Subsequent returns continued to assess the Canadian-trained pilots as being of inferior quality to their Commonwealth colleagues. Of particular concern to the British was the reported lack of discipline among Canadians. The director of flying training in the United Kingdom, Air Commodore D.V. Carnegie, wrote to the UK Air Liaison Mission in Ottawa that the 'remarks that worry me most are those under "General Remarks" appertaining both to flying and to ground school, and these refer to the poor standard of discipline.' In fact, discipline standards had previously been noted to be 'very high' in Canada, only suffering 'deterioration' overseas.[19]

Nonetheless, this perception of RCAF pilots clearly influenced the RAF's confidence in the Canadians' ability to be effective aircraft captains. In his first quarterly report, Willock had stated that Australian 'Officers have been selected with a greater regard for the qualities required.'[20] This attitude reflected the Air Ministry's conviction 'that gentlemen made the best aircrew.'[21] They had earlier expressed concern about the decreasing numbers of British aircrew who were 'of the middle and upper classes, [young men] who are the backbone of this country, when they leave the public schools.'[22] As the British historian Max Hastings has pointed out, the RAF attitude to aircrew discipline differed somewhat from that of their Commonwealth colleagues, who 'believed that it was their very intimacy with their crews, their indifference to rank, that often made them such strong teams in the air.'[23] The point to be made is that the British did not consider discipline as a matter that only concerned deportment on the ground; rather, it directly affected their assessment of an airman as an operational pilot.

Different standards of discipline did not, in themselves, mean inferior flying skills. Soon after receiving the first set of quarterly returns from Nos 21 and 23 Groups, the Air Ministry enquired of Coastal Command (whose crews usually went straight from SFTS to OTUS) if it had noticed 'any marked variance ... between those pilots trained in the U.K., Canada, Southern Rhodesia, Australia, etc. If so, your brief comments covering the situation would be appreciated.' The response was very brief indeed. 'The C[oastal] C[ommand] Training Group have found no marked variance between these pilots.'[24]

Coastal Command's conclusion doubtless had something to do with the fact that none of the SFTS graduates had previous experience with the operational aircraft flown at the command's OTUS. This was not the case at twin-engine AFUS which flew Airspeed Oxfords, the same aircraft used in New Zealand, South African, Rhodesian, and many Australian service schools; Canadian pilots trained on Avro Ansons or Cessna Cranes and were therefore initially at a disadvantage.[25] Another explanation for Coastal Command's judgment may be that the pick of the EFTS graduates were selected for single-engine (ie, fighter) SFTSS and the best of the twin-engine SFTS graduates were assigned to flying-instructor training or sent on general-reconnaissance courses which automatically oriented them towards maritime patrol duties. 'The fact that the lower half of each course go to the U.K. immediately after passing out at S.F.T.S.,' read a Bomber Command memorandum of December 1943, 'is evident by the comparatively small proportion of officer pilots undergoing instruction at [Bomber] O.T.U. This is so in spite of the free and easy award of Commissions at S.F.T.S. ... the overwhelming tendency is to post the best pilots to F.I.S.S [flying instructor schools] and the brainiest and more capable pilots to G.R. courses.'[26]

Responding to this complaint, Air Marshal Sir Peter Drummond, the British Air Council's air member for personnel, admitted to Sir Arthur Harris, the air officer commanding-in-chief Bomber Command, that 'When I took over ... I was horrified to find that the practice of creaming off pupils for training as instructors, which no doubt started as an emergency measure, has come to be accepted as a regular procedure. I have been doing my best to put a stop to it as

far as possible, but, of course, the difficulty is that there is such a small return of pilots from operational Commands to the training Commands.' He went on to report that the number of general reconnaissance courses being given in Canada had been 'considerably reduced' and were now taking only a small proportion of the SFTS graduates. Moreover, one of Drummond's staff officers had recently visited Canada, arranging with Leckie 'that the major proportion of the best pilots EX-E.F.T.S. were to be fed into twin-engine S.F.T.S's.'[27] He did not add, because doubtless Harris already knew, that these changes would take at least nine months, perhaps a year, to make themselves felt at the 'sharp end.'

As the British were well aware, quarterly reports were impressionistic[28] and based on instructors' assessments of random numbers of students at several different training units. One staff officer had minuted on the original quarterly return that 'These are the first quarterly reports for which we asked. We cannot take action yet, as we must see first if subsequent reports bear out the general assumptions of both 21 & 23 groups.'[29] The reports also lacked consistency. The training in Australia was found to be 'of a high standard'[30] in the first report and 'still weak' or 'rather below average' in the next.[31] What was needed, decided the ministry, was an objective test.

Such a test was instituted in the autumn of 1943 by the Research Flight of the Empire Central Flying School and subsequently given to 764 pilots drawn from the overseas training schemes who had all completed SFTS in the spring and summer of 1943 and were about to commence advanced flying training. The numbers from each training scheme were roughly proportional to the size of the scheme – 153 of them had graduated from both elementary and service RCAF schools, 152 from RAF schools in Canada, 105 from Southern Rhodesian schools, 56 from South African schools, 111 from RAAF schools, 53 from RNZAF schools, 49 from British flying training schools in the United States, and 85 had been trained through various interdominion combinations, such as the Australian pilots who had completed EFTS at home and SFTS in Canada. For various technical reasons, 132 of the total were eventually dropped from the comparisons.

The pilots were tested in groups of twelve, each being tested twice on the same day by a total of fourteen instructors. 'Great care was taken that the officers should achieve a common standard of assessment. The test was thoroughly discussed with them; they flew with each other and in pairs with pilots drawn from a (P[ilot]) A.F.U., and cross checks and comparisons were made until it was found that a satisfactory standard of assessment was being obtained by all.'[32] The candidates trained on single-engine aircraft were tested on Miles Master IIs, machines which none of them had previously flown, while the twin-engine pilots were tested on Airspeed Oxfords. These were the same aircraft flown at the AFUs. All of the New Zealand, South African, and Rhodesian pilots had already trained on these aircraft, while the overwhelming majority of Canadian-trained pilots had flown only Avro Ansons or Cessna Cranes. Consequently, pilots were separated into those who had had experience on Oxfords and those who had trained on Ansons. Fortunately for the purposes of comparison between Canada and the rest of the Commonwealth, the Australian pilots were almost equally

divided between the two groups. Scoring was numerical, numbers were tabulated, and a statistical analysis compiled.

Overall, the 'general impression left in the minds of the testing officers was that the ... standard of performance was good, and that the morale of the pilots was high.' The testing officers found that the most noticeable weaknesses, and the ones which required the greatest attention, were common to all of the pilots, regardless of where they were trained. 'The standard was highest on Taxying and Take-off and climb, and lowest on General Engine handling and Aerobatics. Instrument Flying and Airmanship were also below the general level. The weakest points on the whole test were use of throttle, warm air, mixture etc., use of engine in aerobatics, and overshoot procedure on instruments. Control of rate of descent on instruments was also poor, as was the handling of the ancillary controls after landing.'[33] Among wholly RCAF-trained pilots, the one area which was consistently below the standard of other trainees 'was the checking of vital actions before and after take off. They also showed signs of falling short of the standard expected in England in other drills and procedures, and it seems that the training authorities might usefully give special consideration to these points. With this exception there is nothing calling for particular comment.'[34]

Unlike the quarterly reports that Nos 21 and 23 Groups had been submitting at the same time, the ECFS report found that RCAF-trained Anson pilots were as good as RAAF Anson pilots and slightly better than the pilots trained in RAF Anson schools. The marks achieved by RCAF Harvard pilots were somewhat below those of the Rhodesian pilots, who were themselves below the standard of RAF Harvard pilots. These differences are of interest when the make-up of RAF and RCAF schools is considered. Although the RAF schools in Canada had been placed under RCAF administrative control at the Ottawa Air Training Conference, they retained their British character throughout the war, and continued to be staffed almost exclusively by RAF officers and NCOs. RCAF schools, however, were staffed almost entirely by RCAF officers.[35] The fact that the RAF Harvard schools were able to produce the highest quality single-engine pilots may be a reflection of the Royal Air Force's greater familiarity with high-performance single-engine fighters during the interwar years.

When the testers compared RAAF pilots trained on Ansons in Australia with those trained in Canada, specific differences in abilities were apparent.

> The Australian trained pilots were inferior in Cockpit check; they tended to be rather less good at Taxying, significantly so at lookout. Their lookout on Steep Turns and their turns in Single Engine flying [flying a twin-engine aircraft on one engine] were below those of the Canadian trained. Their check of the signal area before joining the circuit was very inferior and the quality of their landings was also not up to the Canadian standard.
>
> On the other hand, the Australian trained were much superior on vital actions after take off and their procedure for Single Engine flying was also better. They showed an advantage in their vital actions for landing and in their overshoot procedure, on the instrument circuit. Their handling of the ancillary controls after landing was decidedly better, as was their General Engine handling throughout the test.[36]

Obviously, the ideal was to do well in all skill areas. A pilot whose 'vital actions' on take-off were below average, or whose 'lookout' or check of the signal area was poor, could all too easily kill both himself and his crew either in the course of a routine training flight or on an operational mission. But when coned by searchlights over Essen, or with a night fighter on his tail over Dortmund, monitoring his instruments correctly would momentarily be less important than the ability to corkscrew out of danger; and with one (or even two) engines knocked out by flak, applying the correct procedures for flying on the remaining engine or engines would matter a good deal less than the actual ability to keep the crippled aircraft in the air.

The RAF appears to have been reasonably satisfied with the 'basic training'[37] received by the plan's graduates, despite what the ECFS had earlier termed 'the usual minor faults and omissions' found in student pilots.[38] British concerns with the standard of discipline exhibited by Canadians once they left North America was a separate matter. The director of flying training felt that part of the problem lay with the AFUs and suggested that the Canadians required 'firmer handling' since they tended to relax 'after the strict discipline to which they have been accustomed' in Canadian schools. 'It seems to be the Canadians who throw their notebooks overboard under the impression that they will not be needed again. When they are in this frame of mind, ie, "let's get on with the war," they probably find it all the more difficult to accustom themselves to the long periods of training that still lie ahead.'[39] Discipline aside, by October 1944 the RAF had informed Canada that the 'main deficiencies in overseas training have been eliminated, and it is becoming increasingly difficult to discriminate between the standard of training in one country as compared with another.'[40]

Although it is by no means clear how much of the RAF's other assessments of Canadian standards ever found their way back to BCATP authorities,[41] the ECFS Research Flight report was sent to Ottawa in mid-September 1944. However, by that time the BCATP was rapidly winding down, and there was an enormous surplus of pilots in the pipeline. All but near-perfect pilot candidates were being 'washed out' in order to reduce the flow of graduates.[42] The report seems to have disappeared into some bureaucratic limbo, since there are no indications of action being taken to correct the specific weaknesses outlined in it. Only the report's covering letter now lies in the Public Archives of Canada.[43]

The RAF may have preferred to transmit criticism informally and verbally. However, forty years later Air Vice-Marshal T.A. Lawrence, who held a series of important field appointments in the BCATP between 1940 and 1944 (culminating in eighteen months as air officer commanding of No 2 Training Command), could not remember any 'feedback' at all from RAF operational commands: 'There may have been some comments and criticisms passed to the RAF Liaison Officer in Ottawa, who may have passed them to RCAF Headquarters, but none were passed down to the Command level. At No 2 Training Command they were "pretty much" left on their own, and even RCAF Headquarters did not bother them as long as the training quota was met.' Only once was Lawrence in direct contact with the Royal Air Force's liaison officer in Ottawa, when he requested the dismissal of two RAF school commanders

because they were getting behind in their quotas. 'The officers were removed,' he recalled, 'with little fuss.'[44]

As might be expected, the BCATP experienced training problems with other members of the aircrew team as well. At times the pressure to produce the necessary quantity of aircrew meant that some graduates were pushed through simply to meet quotas. In August 1943, for example, the air officer commanding No 12 Operational Training Group, RCAF, complained to the commanding officers of his two general reconnaissance schools that 'It has been noted from recent course reports that some navigators are being allowed to pass out from their G.[eneral] R.[econnaissance] S.[chool] when they have apparently failed the G.R.S. examinations in navigation ... In future all units are to ensure that observers are proficient in navigation before they are passed out as fit to an O.T.U. for operational training.'[45]

Perhaps part of the problem in that case lay with the service bureaucracy and the emphasis on a 'pilot's air force' so often bemoaned by other Second World War aircrew. In October the RCAF's director of operational training noted that restricted establishments for navigation instructors, particularly for those of flight lieutenant or squadron leader rank, meant that many qualified men could not be employed.[46] That was an issue that continued to bedevil navigation training throughout the war – a kind of Canadian 'Catch 22' which seemed to decree that, if a man was ideally qualified to do the job, he was by definition over-ranked for it and consequently could not be used.

With other aircrew trades a lack of operationally experienced instructors was a factor, but problems resulted in the main from the obsolete equipment foisted off on the schools. It was not until the latter part of 1942, for example, that turretted aircraft began to become available to bombing and gunnery schools.[47] When they did, one B&GS promptly reported that 'in general scores are 25% lower from turretted aircraft.' The Air Armament School at Mountain View, Ont. (which stood in a similar relationship to B&GSs as the Central Flying School did to EFTSs and SFTSs) found that 'the difficulties experienced with the turrets have been due to a variety of reasons, ranging from faulty turret design to inexperience on the part of the Instructors themselves regarding the stoppages and difficulties likely to be encountered in a turret exercise.'[48] In May 1943 the chief of the air staff still had to tell his air officers commanding training commands that the RAF had remarked upon the 'insufficient knowledge' of harmonization of turret guns (ie, the setting of the guns to give a certain spread and pattern of bullets at a standard range) and of the Browning machine-gun, which, with its faster rate of fire, was now universally fitted to the turrets of operational aircraft. BCATP graduates were still being trained on the old Vickers GO (gas operated) gun.[49]

Gunnery difficulties were compounded by a blunder in assigning men for training as gunners, as Air Vice-Marshal Leckie was the first to admit. 'When recruiting for the class started, I am well aware that I suggested that educational standards were not necessary and that the local farmer's boy who could use a gun and had the necessary guts, would and should, make a useful air gunner. It now appears as a result of experience, that in this contention I was wholly

wrong ... On planning air gunners' courses, a figure of wastage of 10% was estimated ... Accumulative wastage up to October 9, 1942, was 6.5%. Since then the wastage has steadily increased from 6.5% up to 11.1%, the last figure to hand, and it is still rising. I am therefore compelled to recast courses at the B.&G. Schools and base them on an anticipated wastage of 20%.'[50]

The BCATP also suffered initial difficulties with its wireless operators (air gunner). The first 600 to arrive in the United Kingdom were 'definitely below standard' and had to be given special refresher training before continuing on to OTUs.[51] The low standard was attributed by the RAF to faulty instruction, old equipment, and a lack of keenness on the part of the trainees, all aggravated by built-in training delays.[52] Bombing and gunnery school interrupted the wireless practice of the new wireless operators, and travel time and lengthy waits before they arrived at their new units overseas led to further loss of skill. The British took steps to provide equipment on ocean transports, and suggested that training be undertaken at the embarkation depot and during the voyage.[53] As a result, a policy was adopted of giving graduates further training while awaiting embarkation in order to maintain their proficiency. Periodic efficiency checks were also instituted at bombing and gunnery schools, and arrangements made for tests and training during the voyage overseas.

Air bombing was a new trade, introduced only when the observer function was split between navigators and air bombers in early 1942. The division of responsibilities had an immediate effect on the standard of air bombing: an average error of 168 yards for high-level (10,000 ft) day bombing and 176.5 yards for night bombing quickly became 127 yards for day exercises and 154 yards at night. For the new trade of specialist air bomber the increase in accuracy was soon even greater – the average error was reduced to 113 yards by day and 136 yards by night.[54] The Air Ministry, however, was dissatisfied with the accuracy of bombing operations, and notified the RCAF in December 1942 that 'the standard of air bomber training has ... been found to be inadequate and compares unfavourably with that of American bombardiers.'[55]

The RCAF itself was dissatisfied with the method of air bomber training used by the RAF and felt that certain aspects of American training could be adopted in Canada with beneficial effects. Of particular concern to the Canadians was the quality of analysis of air bombing exercises. In September 1942 the RCAF liaison officer in London reported his findings after examining an RAF school in operation:

I have reserved my comment until such time as I was able to see what was being done in the U.K. for I was always faced with the argument that, 'it was working all right in the U.K. so it was probably just lack of experience.' Well now I have seen, and I am satisfied that the U.K. Schools aren't getting one whit more out of their analysis sections than we are *but* everyone thinks that they are operating smoothly, and producing results. I have taken the trouble to sit and watch what goes on and it isn't at all impressive – despite what people say ... I recommend that we try the American situation ... they take the results of the air exercises to the classroom with the class instructor and do the analysis there instead of at the plotting office ... I have mentioned this scheme to experienced

people in the U.K. and their unanimous comment is that 'analysis must be done immediately after landing to be any use at all.' When I counter this remark by the statement that after 15 years' effort in one direction without spectacular success it's almost worth trying something else which just *might* produce results, the only answer is: 'Well maybe it will' ... I therefore say, new or not, American or not, let's get on and give it a try.[56]

Some of the training difficulties were undoubtedly caused by the fact that when the air observer trade was split into navigation and air bombing, the best mathematicians among the recruits were selected for navigator training while the balance was left to become air bombers. To help overcome these problems, the length of the air bombing course at bombing and gunnery school was extended from eight to twelve weeks in 1942.[57] More time was spent in practice and more bombs were dropped, while training emphasis was changed from 'application bombing exercises,' which judged the proximity of individual bombs to a specified target, to 'grouping exercises,' in which the measure of success was the radius of an imaginary circle encompassing six bombs. Tight groupings measured consistency rather than accuracy and reflected more closely the essentials of the technique of 'area bombing' that obsessed Bomber Command in the strategic air offensive against Germany. To pass their course, air bombers had to register at least two 'close' groups of eighty-yards radius or less (converted to an altitude of 10,000 feet) in six exercises.[58]

The Air Ministry did not request quarterly reports from its observer AFUs on the standard of navigation and air bomber training until May 1944. The first of these was received in September. The AFUs did not find any great variance among training theatres in either navigators or air bombers. Navigators were generally found to be slow in practical work but reasonably sound in the theory of navigation. The greatest problem arose from their unfamiliarity with European conditions in regard to map reading, meteorology, and the navigational aids available in the United Kingdom. It was also found that with 'few exceptions pupils do not at first appreciate the necessity of the AFU course & look upon it as merely another "waiting pool."'[59] The air bombers' scores on bombing exercises were found to be satisfactory 'but on average the standard pupil is only considered as a fair A[ir] B[omber]. Lapse of time between training periods may account for this to a certain degree.' Map reading was 'poor to start with' and the RAF instructors could find little evidence that the air bombers had previously received training in navigation. As with other aircrew, air bombers trained in the dominions experienced difficulty adjusting to European conditions.[60]

Those seeking further statistics and facts concerning the BCATP in all its vast and complex detail can find many of them in another publication of the Department of National Defence, F.J. Hatch's *The Aerodrome of Democracy*.[61] However, a general feeling for the plan in operation can perhaps best be acquired by recounting the experiences and impressions of two students, the first from 1940-1 when the BCATP was in its infancy, the second from 1943-4 when it had just passed its peak. Pilots have been chosen because they constituted the largest single graduating trade, because their training was more complicated, expen-

sive, and prolonged than that of any other aircrew member, and because the pilot was the key member of every crew. In the end, the success of the plan stood or fell on the calibre of pilot training.

Recruiting for the BCATP began in the early spring of 1940. Andrew Robert MacKenzie was one of the first to apply, attracted, like most of his contemporaries, by the 'glamour of the air force.'[62] Aircrew candidates had to be fit males between eighteen and twenty-eight years of age, with at least junior matriculation standing. 'Andy' MacKenzie was nineteen with junior matriculation from Quebec, and most of his fellow pupils were eighteen and nineteen-year-olds – a few were in their early twenties – and high-school graduates. In those early weeks of the plan there was much confusion and uncertainty in enrolment and training patterns. Aircrew trade quotas were known to exist and MacKenzie delayed his enlistment for a week in order to avoid an air gunner quota which he believed was being made up at that time, a delay he later found to be 'a lot of nonsense because we were all recruited as aircrew. The selection was made in ITS ... later on.'

On 7 June 1940 he was taken on strength at 1 Manning Depot, a 'lonely, although exciting' experience for a young man who had never been away from home before – 'twelve hundred men all in the same room' in the horse palace on the Toronto exhibition grounds. He received an ill-fitting new uniform and, with others who could afford it, immediately had it 'tailored to look a little nicer,' a vanity that cost each of them about fifty dollars. Just two weeks later, on 24 June 1940, he was posted directly to a four-week course at 1 ITS, located at the Toronto Hunt Club. The school's main function was aircrew trade selection, and the principal tool used to select pilot trainees was the Link trainer, a crude electro-mechanical classroom simulator that tested hand and eye co-ordination. Most volunteers wanted to be pilots, so they concentrated on doing well on the Link. A few preferred to be observers, encouraged by the 'rumours ... that the prestige job was the navigator.' In the end, about half of MacKenzie's course were selected as air gunners. They were the most disappointed. 'Some were heart-broken. Tears.' 'They did a parade down Eglinton Avenue ... saying ... "We've been screwed; we are air gunners."' The problem was, recalled MacKenzie, 'we all wanted to be pilots, and navigators rationalized that they were the smarter ones and they would tell the pilots where to fly. The air gunners had no excuse. They were just going to be sitting in the tail ... it was just not the job they wanted.' None of the pupils felt that they could complain, however, for 'none of us really knew what the criteria were' for aircrew trade selection.

MacKenzie was chosen for pilot training and was posted to 4 EFTS, Windsor Mills, Que., on 21 July 1940. Like other EFTSs, it was civilian-run with civilian instructors and 'the food was nice. They had civilian caterers.' Ground school continued, including more Link training. 'It was certainly valuable ... a little more on the instrument bit ... A little more advanced. I think we expected that and we rather enjoyed it, although Link trainer could never replace the aeroplane.'

MacKenzie 'had never been in an airplane in my life.' The school was equipped with Fleet Finches, one of two elementary trainers initially used by the