

2013

Canadian Defence Planning Between the Wars The Royal Canadian Air Force Comes of Age

William J. McAndrew

Follow this and additional works at: <https://scholars.wlu.ca/cmh>



Part of the [Military History Commons](#)

Recommended Citation

William J. McAndrew "Canadian Defence Planning Between the Wars The Royal Canadian Air Force Comes of Age." *Canadian Military History* 22, 1 (2013)

This Feature is brought to you for free and open access by Scholars Commons @ Laurier. It has been accepted for inclusion in *Canadian Military History* by an authorized editor of Scholars Commons @ Laurier. For more information, please contact scholarscommons@wlu.ca.

Canadian Defence Planning Between the Wars

The Royal Canadian Air Force Comes of Age

William J. McAndrew

For the first decade of its existence, the Royal Canadian Air Force was all but excluded from the military planning process in Canada. Despite its superb antecedents in the First World War – more than 20,000 Canadians served in the Royal Flying Corps and the Royal Air Force – the air force barely survived postwar reconstruction. When the fledgling two-squadron Canadian Air Force, which finally had been formed in late 1918, was disbanded in Britain in 1919, the future of Canadian military aviation was left very much in doubt. By 1920, a non-permanent air force had been organized, and two years later it attained separate permanent status in a reconfigured Department of National Defence. There was no doubt, however, of the RCAF's subordination to the army. As a minor cog in Canada's militia establishment, its senior officer was a Group Captain whose military advice was confined to technical matters and then only on the rare occasions on which it was asked.¹ National defence planning was a matter for the army and to a much lesser extent the navy. The Air Force's theoretical role was to provide support, like any other fighting arm, on the First War model.

The RCAF found its *raison d'être* in civil aviation rather than in military flying (the case for which had a certain incongruity in the Canadian

Abstract: During the interwar period, the Royal Canadian Air Force reoriented itself from an exclusively civil to a military service. In doing so, it assumed primary responsibility for Canada's direct home defence, put in place a command and administrative air defence structure spanning Canada, and gained coequal status with the other services. Moreover, by 1939 the air force had on hand a cadre of technically trained staff officers prepared to take over the many higher appointments created by the expansion required to meet the demands of the Second World War.

twenties), when it was made the central government agency not only to regulate and control the airspace but to conduct civil flying operations for the federal government. Initially these centered on forest fire patrols which gave way by the end of the decade to an ambitious national program of aerial survey. The range of the service's civil activities, however, was remarkable – from conducting buffalo and reindeer census to paying Indian Treaty money, from crop dusting to topographical mapping, from medical rescue missions to pioneering exploratory flights. Military training as such was rare. A few elementary inter-service exercises were held, and the Camp Borden training center ran regular refresher and technical courses in

the off season, but military aviation rated a low priority. It was not until 1927 that the "bush pilots in uniform" obtained their first military aircraft since the war, a flight each of already obsolescent RAF Atlas' and Siskins.

Although it was fully preoccupied with civil flying operations, the RCAF never entirely disregarded the military component in its make-up. All but a few newly commissioned RCAF officers had served with the RFC/RAF/RNAS during the past war, many with combat distinction. Furthermore, the RCAF was organized, trained, and administered on the RAF model and shared most of its customs and traditions, from uniform patterns to mess dinners. Even in the bush, the eternal military verities had to be observed, officers saluted and trousers pressed. More important, as early as 1922 the RCAF regularly sent selected officers to Britain for training in RAF establishments, especially the Imperial Defence and RAF Staff Colleges. In time, a growing body of officers was exposed to ideas and doctrine in the tactical and strategic employment of aircraft. "Schools for higher training are a necessity if the flying officer is to become something more than a mere chauffeur," declared Lord Trenchard, the directing force of the RAF, and he had insisted on forming separate

Air Force schools because to rely on those of the older services “would make the creation of an Air Spirit an impossibility.”² The RAF Staff College course of study, to inculcate that air spirit, was

devised with two objects in view; firstly to train officers in staff duties whether in peace or war; secondly, to afford a general education which will serve as a sound foundation for the building up of a school of thought in the Royal Air Force. It aims at developing the habit of steady reading and thinking rather than at the acquisition of a mass of detail.³

The teaching itself, which concentrated on imperial and small wars (until 1939 the major war game was based on mounting a counter to a Turkish threat to Mosul),⁴ had little direct relevance to RCAF needs but, as one RAF graduate later commented, “The value was not in the stuff but in the training I had in absorbing it and dealing with it.”⁵ RCAF students customarily were called upon to lecture on their unique work in Canada and they duly described what must have seemed to their RAF peers, back home from policing imperial deserts, a somewhat esoteric life surveying the Canadian back woods. They also were exposed to what was rapidly becoming conventional air force wisdom, the Trenchardian doctrine of employing bombers independently as the prime air offensive weapon to subdue the will and production centres of the enemy. On his return to Canada, a 1924 RCAF graduate, Wing Commander J.L. Gordon, wrote, in terms which Trenchard would have approved:

It would appear...that in stressing the necessity for establishing Air Superiority prior to carrying out aerial operations which may be of vital importance to both an Army

Year	Appropriations		Flying Hours		Strength (Permanent)	
	Military	Civil	Service	Civil	Officers	Airmen
1930	2,510,000	4,965,700	13,996	13,640	175	669
1931	2,266,000	3,066,000	19,172	11,185	177	729
1932	1,560,000	190,000	6,904	3,522	178	700
1933	1,405,000	292,000	7,272	3,491	103	591
1934	1,930,000	332,000	8,721	3,746	106	586
1935	3,130,000	1,176,364	12,010	4,050	118	676
1936	4,685,028	2,124,187	12,241	4,686	142	884
1937	11,391,650	361,000	17,417	2,361	148	959
1938	11,330,517	365,000	24,204	2,864	178	1,523
1939	28,450,515	325,050			261	1,930
1944	1,260,168,000				38,756	140,626
1945	526,320,500				8,818	44,425
1947	89,587,140				2,140	10,486

and a Navy, the work of these two services must suffer considerably in the opening phases of any campaign. There would appear to be only one practicable means of establishing this very much desired condition, and that is offensive operations against the enemy’s means of production... It should be realized...that offensive operations in the air, as distinct from purely cooperative measures, should concentrate on what must eventually be their main object. This, it seems, is the principal centre of the enemy.⁶

Later Canadian students also easily absorbed the dogma of bombing. As Squadron Leader G.E. Wait wrote following his Staff College tour, “The moment war is declared, Air Power must be ready to exert direct pressure upon the enemy’s internal organization.” Centers vital to the enemy’s war-making capacity would be the prime bombing targets but “to safeguard her home interests,” the possibility could not be ruled out that Britain might “be forced into direct air attack on enemy populations.” In any event, “civilian casualties will be unavoidable,” but, “C’est la guerre.” Offensive bomber forces possessed unprecedented flexibility:

We strike first, then, at another and equally vital point, within range of both our bombers and fighters. Well directed bombing will cause a clamour for protection. The tendency will be for the enemy to divert some, maybe all, of his fighters to defend the threatened point.

But the result will not be a proportional increase in resistance to our attacks. We have the advantage of initiative, choice of objectives, approaches, methods, and times of attack. Also, being forced on to the defensive will react adversely on the morale of the defenders...⁷

On his return from the 1930 Staff College course Flight Lieutenant G.R. Howsam published “Canada’s Problem of Air Defence,” which brought bombing theories home to Canadian realities.⁸ Howsam accepted the basic premises of air power proponents that while aviation resources employed with the navy and army were subordinate to them,

The RCAF Siskin Aerobatic Flight Team. This aircraft was the only first-line fighter the air force had until the late 1930s.





Two Vickers Vedettes of No.5 Photo Detachment moored to a dock at Long Lake, Manitoba. Civil flying operations in the Canadian north earned RCAF flyers the title of “bush pilots in uniform” during the 1920s.

true air power was only achieved through the independent use of the air arm. “Bombers, supported by fighters,” he wrote, “are the embodiment of air power which is applied by air bombardment.” While fighters provided the means for defence, which could be only partial at best, bombers were the prime weapon:

In the last resort air power is one of the instruments whereby a nation is guarded, but without air bombardment an air force becomes an ancillary to the other services. Abolish air bombardment and there is no air power, no air striking force, no air defence and no Air Menace.⁹

Canada’s military responsibility, Howsam thought, had been clearly defined at the 1926 Imperial Conference which accepted the principle that each component of the Empire must provide, first of all, for its own defence. Canada had remained invulnerable from the possibility of

air attack until then, but technological advance would make coastal raids from carrier aircraft feasible within a short ten years. Fighters could offer some defence, but the principal means lay in using bombers to attack the bases without which enemy aircraft were useless. Heavy bombers with a 450-mile operational radius meant that allowing for ships’ night movement during which they would be undetected, “no carrier or other surface craft can approach unmolested within 150-miles of our shores if protection aircraft (bombers) are employed.” An attack on Canada’s Pacific coast was most likely and to defend it “our requirements in military aircraft are bombers, fighters and flying-boats for the Air Force proper. These are subject to air strategy and would be employed chiefly in Coast Defence.” Howsam proposed to circumvent the high costs of permanent units by forming auxiliary squadrons with permanent cadres initially on the scale of one flying-boat and one bomber squadron

for each coast. “In the 20th Century there may be a Seven Days War – an air war.” Howsam concluded, “the nation which can most quickly beat its plough shares into swords (bombers on the enemy) will win the next war. The suggested peace plan of Non-Permanent Squadrons of Air Force is considered a step in this direction.”¹⁰

It would be misleading to place too much emphasis on these views. Junior officers in any age publish their own uncertain thoughts in military journals, particularly after the out-of-the ordinary intellectual stimulation of a staff course. Howsam tactfully made clear that he had “no intention of tilting at Air Staff opinion,”¹¹ which, as late as 1933, even after drastic financial reductions had eliminated most flying, still viewed civil operations as the RCAF’s primary training mechanism,

as it is considered that the experience within limits is equally as valuable as an equivalent amount of flying

performed for strictly military training, and in addition, there is nothing better for the morale of the force than a certain amount of work of practical importance to the development of the country.¹²

Nor did the articulation of an air doctrine indicate any alteration in the Canadian defence planning structure. Planning remained the preserve of successive Army Chiefs of the General Staff who, as far as the record shows, felt little need to consult their air force advisors on policy matters, at least until the mid-1930s. The process of thinking about aerial options, therefore, was important primarily in allowing officers to evolve a modicum of service identity – Trenchard’s “Air Spirit” – which eventually might be called upon. Howsam recalled many years later, “We had no Staff College in Canada at all. That level of thinking, that level of doing, was completely unknown. It was a Godsend. Without it, we’d have been absolute neophytes.”¹³

* * * * *

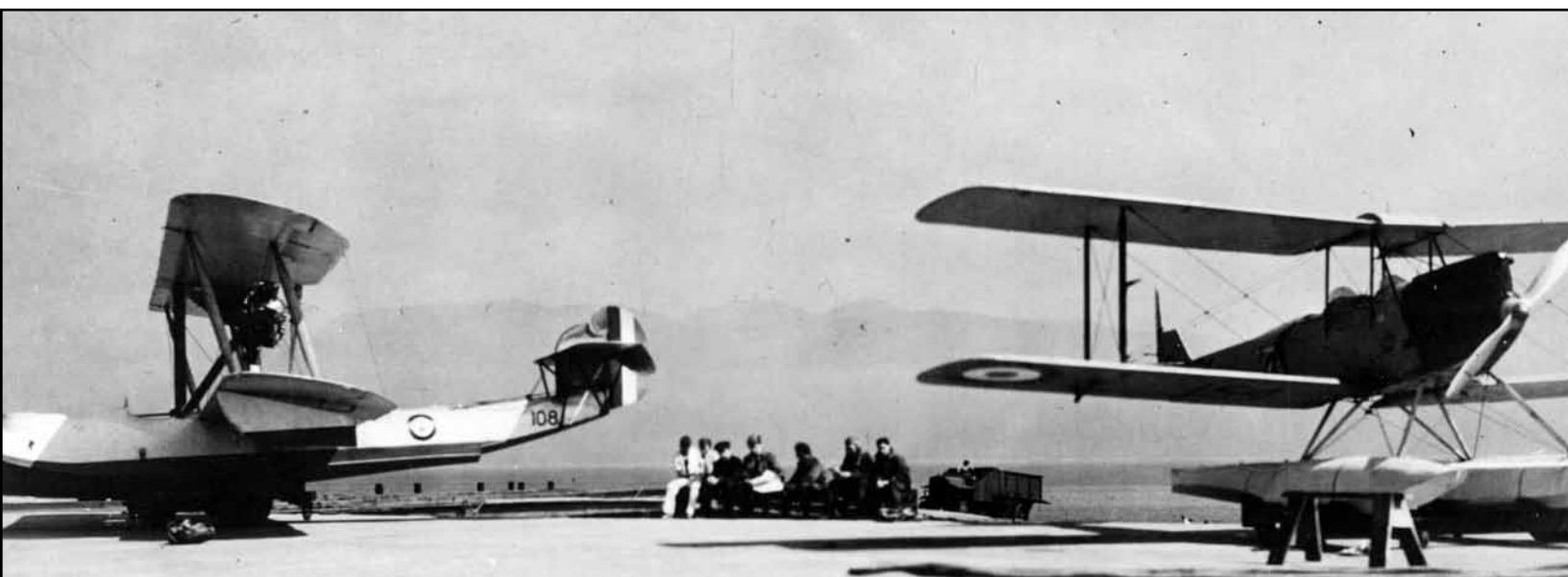
RCAF Aircraft Strength					
1936			1939		
Service		31	Service		92
Siskin	8		Hurricane	19	
Atlas	15		Siskin	5	
Shark	4		Atlas	13	
Vancouver	4		Wapiti	22	
Civil		58	Battle	10	48
Training		46	Shark	11	
Overall Total		135	Vancouver	4	130
			Stranraer	8	
			Photographic and Communications		48
			Training		130
			Overall Total	270	

It is impossible to say how long the existing civil-military relationship would have continued without an external stimulus for change. But coincidentally in the early 1930s two unrelated but equally incongruous circumstances combined to jolt the RCAF out of its civil and into a purely military role. The first was the Great Depression which prompted the government to decimate the aviation budget, thereby setting in motion a chain of events which led by 1936 to a structural separation of civil from military

aviation. The second was the military staff planning made necessary by Canada’s participation in the Geneva Disarmament Conference, which, by requiring Canadian military planners to reconsider their force levels, also prompted them to reevaluate the country’s strategic priorities and the employment of the three services.¹⁴

It was fitting that disarmament talks concerned with the utility and ethics of bombing got under way as Japanese bombs were falling on Chinese cities.¹⁵ For Canada’s new chief of the general staff (CGS),

Two aircraft at RCAF Station Jericho Beach, Vancouver, BC. On the left is a Vickers Vedette and on the right a float version of the dependable De Havilland Moth trainer.





Canadian War Museum 19750315-019

An Armstrong Whitworth Siskin at Rockcliffe Air Station. Standing in front of the aircraft are (left to right): Flying Officer E.A. McNab, Flight Lieutenant Victor Beamish, and Flying Officer E.A. McGowan. The three officers were members of the famed Siskin flight, which thrilled thousands of spectators at air shows in Canada and the United States. McNab would later command No.1 Fighter Squadron RCAF during the Battle of Britain and rise to the rank of group captain. Beamish, an RAF officer seconded to the RCAF, reached the same rank before being killed in action in March 1942.

however, the timing was fortuitous for other reasons. Since becoming chief in 1928, Major-General A.G.L. McNaughton had become convinced of the need for a fundamental review of Canadian defence planning and the Geneva discussions provided a convenient reason for proceeding. Until 1930, the only completed contingency plan for the employment of Canadian troops was designed to defend the country against American attack (Defence Scheme No.1). This envisaged mobilizing a 15-division militia in a levee en masse to take the field and hold until relief could be ensured by the Royal Navy. The mass militia force on which it depended, however, never materialized in the inter-war years as funds were not made available to recruit and equip it. Its only value was to provide a

“worst case” scenario which gave a rationale for organization, training, and mobilization, which could be adapted to other purposes.¹⁶ For its part, the RCAF was not consulted until 1927 when, at the request of the Joint Staff Committee, the Director allotted (paper) army cooperation squadrons on the First War scale of one to each (paper) division and corps headquarters.

Defence Scheme No.1 had only a tenuous connection with political reality and it seems doubtful that it ever would have been considered at all had staff planners been given clear political direction. This was not forthcoming and “one searches the records of successive administrations in vain for evidence of anything that could be described as a well-

considered and consistent military policy,” Professor Stacey has written:

no responsible Canadian statesman ever paused to ask himself these simple and fundamental questions: if this peace proves fleeting, what is the nature of the menaces that will threaten Canada? What form of organization would offer the greatest security against them? How far does the existing organization satisfy these needs?¹⁷

In the absence of a planning mandate, McNaughton’s staff raised many of these questions in an appreciation of the country’s defence requirements it completed in January 1931. In the process it demolished the case for an American war. Noting that the evolution of

events over the previous ten years had invalidated the premises on which Defence Scheme No.1 had been based, the staff concluded that the possibility of a continental war had receded beyond the bounds of realistic probability. Ties between Canada and the United States had grown so close, and international conventions so inhibiting, that:

Provided Canada acts ethically and on the defensive, the United States must spurn the Treaty of 1909 (which created the International Joint Commission), defy the League of Nations and forget the Pact of Paris (Kellogg-Briand) in resorting to invasion each and all impossible to conceive under existing world conditions.¹⁸

Certainly, from Canada's perspective, if an appeal to arms to settle North

American differences had made any sense at all in 1919, it no longer did so in the 1930s.

The direct defence of Canada against invasion by the United States is a problem which in the last ten years has become increasingly susceptible to political solution, but quite incapable of being satisfactorily answered by Empire military action...[therefore] organization of the Militia Forces of Canada for a war of this nature is undesirable, even if it were practicable.¹⁹

Having rejected the concept of a North American land war there was no need to maintain the existing unwieldy militia structure, and McNaughton recommended that it be reduced to a more manageable seven-division level. The government accepted the proposal, despite

considerable objections from militia units which would be disbanded or amalgamated, and was able to offer it as tangible evidence of its support for disarmament. As Sir Maurice Hankey, the secretary to the Committee of Imperial Defence, noted, "By this step the Government could take the credit for a large reduction in establishments, and the army would be the more efficient for the reduction."²⁰

For the RCAF, the Geneva discussions raised two quite different immediate concerns. One was the possible freeze of current establishments which would then be accepted as upper force limits; this, of course, would have set the RCAF's military potential permanently at zero. The other was the proposal to restrict the habit of seconding military aviators for civil duties. Although this was meant to control the practice,

The Armstrong Whitworth Atlas was a purpose-built army co-operation aircraft based on First World War experience. Here an Atlas skims low over an airfield to practice a message snatch. Note the observer leaning over the side of the aircraft.

Canadian War Museum 19910109-199



especially by Germany, of masking the build-up of military capabilities behind a guise of civil flying, its effect on the RCAF would have been equally crippling. However, nothing came of either possibility as the Geneva talks ground to a halt amidst the wrangling which accompanied the breakdown of international order.²¹

The significant aspect of the disarmament events on the development of the RCAF, however, lay primarily in the strategic reassessment they had set in motion. As long as the direct defence of the country remained based on a mass land army, the air force was relegated to a subordinate, support role, much as it had been on the Western Front. When the oversize militia was restructured, however, the air force's role in Canada's defence posture also was altered. The general staff identified two contingencies, neither of them new but now given enhanced priority, for which plans were required. One was participation "in another overseas war in defence of Empire security."²² The possibility of raising an expeditionary force for imperial deployment – or the indirect defence' of Canada as it invariably was termed – never had been far from the minds of militia commanders and staffs. Nor did it stray far now. The option was so well entrenched in a political no-man's-land that it could be approached only warily; but planning proceeded in any case, the RCAF's role being limited to supplying army cooperation squadrons in support of ground forces. The other option, in effect, redefined the concept of "direct defence." The staff concluded that any military threat to Canada likely would materialize on the coasts as a by-product of a war between the United States and another power, most probably Japan. Even if it was able to avoid belligerency, Canada would be forced to defend its coastal borders as "the only alternative to

active participation on one side or the other." Otherwise, "if Canada does not take the requisite measures to maintain her neutrality...the United States would doubtless take independent action, presumably on Canada's behalf."²³

Traditionally, of course, the senior service had responsibility for coastal defence, but the RCN's emaciated 1,000-sailor complement was barely able to man the four destroyers and few other smaller vessels it could put to sea. To be made effective, the navy needed either a major ship acquisition program or to be assured of immediate reinforcement on the outbreak of war; the former was politically impossible, the latter technically unlikely. In the CGS' view, "the Canadian navy as presently constituted is not an answer to any problem of Canadian defence." McNaughton may have shared a general landlubbers' aversion to salt water but he was also a realistic pragmatist²⁴ who was attempting to fashion a coherent defence policy within the paralyzing constraints imposed by depression funding. He also dominated the defence establishment, both by the force of his intellect and personality and his close association with the Prime Minister which gave him considerable political influence. He was convinced that the limited defence funds could be used best in maintaining small, technically impeccable, permanent cadres which could quickly train larger forces on mobilization. Coastal defence required forces in being, but the RCN was unable to present "a minimum deterrent to seaborne attack... Moreover it is of the nature of naval forces that they cannot be rapidly expanded to meet emergencies and, in consequence, it seems to me that little purpose is served in maintaining a small nucleus."²⁵ The air force, McNaughton concluded, could replace the navy; aerial patrols not only would be more effective but were much less expensive; and

the RCAF could well assume the responsibility as the country's first line of home defence:

Air Forces even in small numbers are a definite deterrent in narrow waters and on the high seas in the vicinity of the shore; they can be developed with considerable rapidity provided a nucleus of skilled personnel in a suitable training organization is in existence; pilots engaged in civil aviation can be quickly adapted to defence purposes; civil aircraft are not without value in defence, and any aircraft manufacturing facilities are equally available to meet military as well as civil requirements. That is, from a comparatively small current expenditure a considerable deterrent can be created in a relatively short time, and this is particularly the case in Canada where aviation plays a large part in the economic life of the country, a part which is increasing naturally at a rapid rate.²⁶

* * * * *

By the end of 1931 the RCAF staff had completed a preliminary review of the units it would need to meet its newly identified military responsibilities.²⁷ Then, when Group Captain Gordon returned from his course at the Imperial Defence College in the spring of the new year, he was relieved of his administrative duties specifically to prepare the more detailed plans the air force required.²⁸ In mid-July, Gordon's staff submitted a proposal for the "Peace Organization and Establishments of the RCAF considered necessary to meet minimum requirements for National Defence."²⁹

The paper, prepared by Squadron Leader G.V. Walsh,³⁰ considered three contingencies for which the service must plan: direct or home defence (coastal), the maintenance of neutrality, and provision for an expeditionary force. Of these, coastal defence was the most vital, and it was on this major concern that most



The minister of National Defence, Grote Stirling, prepares for a flight in an Armstrong Whitworth Atlas.

planning throughout the remainder of the 1930s concentrated. Coastal defence included, Walsh noted, "protection of important localities and ports from air raids, defence of the Pacific and Atlantic coasts by means of coast reconnaissance, anti-submarine patrols, co-operation with coast defence artillery, and protection of empire Air Routes and Convoys."³¹ Seven Permanent Force squadrons were required to carry out the tasks, four of them controlled by Group Headquarters at Halifax and Vancouver, each with one bomber and one flying-boat squadron. The others were one army cooperation squadron which would maintain contact with the latest doctrine and equipment in the United Kingdom and provide a training cadre for Non-Permanent army cooperation squadrons required on

mobilization; one fighter squadron with a secondary bombing capability; and one general purpose squadron convertible either to bombers or fighters. The army cooperation squadron would be stationed at Ottawa where it could work closely with the militia, the fighter squadron in Montreal where it would be available to reinforce Atlantic coast defences, and the general purpose squadron at Winnipeg able to reinforce Pacific defences. Two other Group Headquarters, at Winnipeg and Montreal, as well as sufficient supply depots and administrative services for an expanded force, completed the command and logistics structure. In addition, 12 Non-Permanent squadrons, four each of fighter, bomber, and army cooperation aircraft, formed in the principal Canadian cities, would

provide further operational air support on mobilization.³²

Walsh's numbers were revised as his plan percolated upwards in headquarters, but not fundamentally.³³ Nor were his premises challenged. The primary consideration for the RCAF remained Canadian direct defence, the requirements for which were the same for either contingency of countering enemy raids or for maintaining the integrity of the coasts to ensure Canadian neutrality. The task required forces in being and therefore home defence squadrons had to be found from the permanent force. As McNaughton viewed the potential threat:

The outbreak of hostilities, under present conditions, would today, possibly, and tomorrow probably, be signaled by an immediate attack by

air. Indeed, such an attack might be made before a formal declaration of war had been made. It is conceivable that attempted air attack from an aircraft carrier might not be kept secret, but direct attack (by trans-oceanic flight) could easily be kept secret as the destination of aircraft cannot be gauged as can that of naval or Military Forces. Therefore, there would not be time for any Canadian Air Forces to expand in sufficient time to meet an attack.³⁴

The secondary needs of an expeditionary force, which would require a preparatory mobilization period, would be met by non-permanent units.

The changing face of war, as noted by McNaughton, in which air power was assuming much greater significance, became a public matter in Canada and the United States in the spring of 1935. The occasion was a leak to the press on closed hearings held in February by the House of Representatives Committee on Military Affairs.³⁵ The Committee had heard testimony on legislation

to extend the existing network of military airfields in the United States. Several Air Corps officers sketched scenarios indicating that the country conceivably could be subjected to air attack within a relatively short time. One pointed out to the Committee that the Douglas Company was building a bomber able to carry a 2,500-pound bomb load for 3,000 miles at a speed of 225 mph. A hostile coalition of powers, he thought, would be able to establish temporary seaborne logistical bases on the North American continent to supply a fleet of long-range bombers in an attack on the continental United States. "Fortunately or unfortunately," he informed the startled Representatives, "the Creator has given countless operating bases within a radius of action of this country in the vast number of sheltered water areas that are available deep in Canada and far removed from any sphere of action of ground forces." From James Bay, Labrador, and Newfoundland, down to Bermuda and the Caribbean, small vessels carrying 2,000 tons of supplies could establish "floating railheads

[which] can furnish all the gasoline, all the bombs, oil, and ammunition, spare parts, all the food that is essential to take care of the operating personnel of 15 bombers, as well as the ground personnel for 30 missions, each one of which goes in 1,500 miles and comes back 1,500 miles." With a 3,000-mile range, a European force could fly to Churchill on Hudson Bay, for example, timed to meet its floating railhead. After refuelling and arming up, they then could be directed to pre-designated targets. Unlike ground troops, their flexibility precluded the need to concentrate anywhere but in the target area: "With the radius of action that we have, they could move from points in James Bay and along the Labrador coast simultaneously and concentrate over any place on the frontiers of this vital area and deliver an attack in mass against whatever targets you want." The only way to counter such a potential threat, he concluded, was by bombing the hostile bases. In order to create this defensive capability, it was necessary to locate and construct more airfields, specifically a system in

A Blackburn Shark, with floats and folded wings, sits on the shore at RCAF Station Jerico Beach. The RCAF modified most aircraft it obtained for use on rivers and lakes.



each of the threatened regions of the country with sufficient intermediate stations to connect them.³⁶ Canada's position was particularly strategic, another officer emphasized. Even if Canada itself was not actively hostile, its neutrality would cause problems because "neutrality involves responsibilities as well as rights, and flying across Canadian territory would be a violation of Canadian neutrality, and if they did not take steps to carry out the laws of neutrality we would have to do so, I imagine."³⁷

Official reaction in Washington to the leaked testimony was swift and vehement. President Roosevelt, his Secretary of State for War, and the State Department immediately repudiated the suggestion that the United States viewed Canada in anyway other than the best of "good neighbours" or that any resort to arms was conceivable. The officers who testified, they made clear, did not set United States' policy and in no way represented it; moreover, the Committee was irresponsible in making their private views public. Apologies abounded, but the legislation itself passed the House in June and the Senate a month later, both unopposed, and received Presidential approval in August. (The first site selected was at Fairbanks, Alaska, in July 1936).³⁸

Canadian reaction was generally restrained. The Department of External Affairs obtained a copy of the hearings and asked the General Staff for comment. Their report was remarkably sympathetic with the American military viewpoint. They accepted the need to plan for all contingencies, however unpalatable, and thought "The United States is, in consequence, obliged to contemplate measures to protect itself from attack not by Canada but via Canada." The staff agreed that the combination of advancing technology and Canada's large and uninhabited coastline

posed potential difficulties for American planners but "there is no record of their having uttered one syllable of hostility towards Canada." Therefore,

No umbrage can properly be taken by Canada at these disclosures. Publicity has simply been given to the fact that is known to the world of Canada's impotence with regard to anti-aircraft defence. Not only are our gates wide open but we have not even the semblance of a fence and our neighbour is, in consequence, obliged to provide against our lack of provision.³⁹

Other Canadian comment agreed. The *Ottawa Evening Citizen* editorialized that the United States had to look to its own defence, and if Canada was not doing its share, it was because the Government had "virtually disbanded the Royal Canadian Air Force." Canada could afford to ignore its responsibilities no longer "unless the pretence of nationhood is to be completely abandoned."⁴⁰

The issues raised by the Air Defences Bill officially were acknowledged and extended that fall in a staff study approved by McNaughton's successor, Major-General E.C. Ashton. Although the United States legitimately could be concerned with a bombing threat, the planners noted, "As the Eastern and Western portions of Canada lie on the Great Circle routes from Europe and Eastern Asia to the United States, respectively, it is clear that Canada is still more exposed to air operations from overseas...[consequently] the continued supposition that Canada is and will remain free from attack by a trans-oceanic power is becoming open to criticism." The paper, which was primarily concerned with devising mechanisms to mobilize the full resources of the country in the event of war, emphasized that "the

question of air defence is becoming one of increasing importance to this country."⁴¹

Despite McNaughton's and Ashton's advocacy, however, RCAF expansion proceeded only imperceptibly. A battle of memoranda ensued as the militia and air force skirmished with the navy before the Treasury Board for a share of diminishing funds sufficient to enable them to survive. The depression and financial retrenchment continued to win. Estimates through 1935 remained below the already stringent 1931 level and the air force neither could maintain the manpower levels established for the disarmament proposals nor obtain suitable aircraft.⁴² The only military machines available in 1930 were the aging Siskin fighters and Atlas army cooperation machines bought earlier. The total number of aircraft on hand in that year was 235. Between 1930 and 1935, 143 machines were written off due to age, crashes, or general deterioration, and only 82 replacements were made, leaving a balance in October 1935 of 174. These included 8 Siskins, 15 Atlas', 5 converted Vancouver flying-boats, and 4 Shark torpedo bombers for operational use in addition to 40 training and 45 civil types. It was not much from which to fashion a fighting force capable of protecting the nation's shores.⁴³

A change in the political climate had to precede any material improvement, and this did not begin until late in 1935 when the depression-plagued administration of R.B. Bennett gave way to Mackenzie King's Liberals. King's resumption of power could hardly have been received optimistically by those pressing for a larger defence budget. The Prime Minister always had been somewhat suspicious of the military. For sound political reasons King had to be extremely wary of Britain's claims to leadership and solidarity, as imperial military ties could



An RCAF Fairchild 71 is moored to the dock at RCAF Station Rockcliffe in October 1930. In front of the aircraft are (left to right): C.S. MacDonald, Flight Sergeant H.J. Winny, Flight Lieutenant F.J. Mawdesley and Sergeant S.C. Dearaway.

easily involve Canada in foreign entanglements. The services were not equally suspect, however. The Navy was hopelessly anglophile, and the army, despite its protestations to the contrary, always kept the notion of an imperial expeditionary force well in mind; but the air force was different. In his earlier administrations, in the 1920s, Mackenzie King had looked favourably on the new service because its active role in the economic development of the frontier provided obvious political advantages which a purely military air force could not. Now, in a different context,

the RCAF was placed once more in most favoured status because of its unsullied role in home defence.⁴⁴

* * * * *

All this took time. It was not until the following August that King briefed himself on the appalling inadequacies of the three services. His diary records in stunning detail the tortuous process he underwent persuading first himself, then his Cabinet colleagues, and then the Liberal caucus that the potentially disastrous combination

of accelerating international anarchy and the complete absence of national defences had to be faced. He was partially successful. The inherent nature of the problem meant that there could be no quick solution, but from the 1937-1938 fiscal year, estimates began to rise helpfully. Throughout the parliamentary discussion, the government made clear that priority was to be given direct, national defence with the RCAF manning the first line.⁴⁵

Accordingly, the RCAF prepared plans to implement expansion on three-, five-, and ten-year programs.

The estimated cost of the three-year scheme was about \$31 million in the first year, \$17 million in the second, and \$11 million in the third. As well as for operational units the estimates included funds for larger training facilities, additional instructors, housing, and ancillary equipment. In comparison, the five-year program called for a first-year expenditure of about \$19 million with the subsequent years scaled proportionately. Ultimately the RCAF cut its own first-year figures to \$16 million and finally received only two-thirds of it. The funding, of course, went only part way in equipping the air force, but it is arguable that the existing industrial base could not absorb much more in the early stages.⁴⁶ Modern aircraft were vitally needed, but most countries were rearming by this time and there were not enough to go around. In any case, a sound logistical foundation had to be laid. As one staff memorandum pointed out, accumulating stocks was a long, drawn-out process:

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; 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.⁴⁷

War overtook rearmament in 1939. In late August the RCAF's few ill-equipped, operational squadrons deployed to their war stations on either coast and began flying coastal patrols almost immediately. It was

not an air force to strike immediate terror in the hearts of the enemy, but fortunately the state of the art precluded trans-Atlantic bombing. It had just over 3,000 all ranks in uniform, 11 permanent and another 12 non-permanent formed but ill-equipped squadrons, and an assortment of obsolescent military aircraft – Stranraers, Vancouvers, Sharks, Battles and Wapitis, along with a few Hurricanes. These numbers represented less than half the men and a quarter of the fighting aircraft the RCAF needed to perform its primary function of defending Canada's coasts. There was nothing left for other tasks. "Canada has neither equipment nor trained personnel in effective quantities to offer the Royal Air Force at the present time," the Chief of the Air Staff wrote in 1939. Therefore "we can best help the United Kingdom by concentrating our entire efforts, after securing our home defence, upon the production of the greatest possible numbers of trained personnel in all categories."⁴⁸

Measured against a standard of effective national air defence, the RCAF in 1939 clearly fell far short. Measured against what it was able to achieve over the next few years, however, the RCAF had laid well the basis for future success. Within a relatively few years it had reoriented itself from an exclusively civil to a military service. In the process, the RCAF's defence responsibilities had grown sufficiently to ensure its service maturation from subordinate status to complete independence. It had, in fact, assumed the primary responsibility from the navy and militia for Canada's direct home defence. By 1938 the RCAF had in place a separate command and administrative air defence structure spanning Canada, and its senior officer had been granted co-equal status with the other service commanders as chief of the air staff. Importantly, it also had on

hand a cadre of technically trained staff officers prepared to take over the myriad of higher appointments an inflated war establishment created. It was, consequently, able to mobilize the country's aerial potential for war, conduct training on the unprecedented scale of the British Commonwealth Air Training Plan, assume responsibility for anti-submarine and convoy protection patrols, and contribute operational squadrons to virtually all active theatres of war.

Notes

This article originally appeared in *Aerospace Historian* 29, no.2 (June 1982), pp.81-89. It has been reprinted with the kind permission of Jack Neufeld and the [US] Air Force Historical Foundation.

1. The details of the origins and early activities of the RCAF will be found in the forthcoming volumes of the official history now in preparation. [Now available: S.F. Wise, *Canadian Airmen and the First World War*, vol.1: *The Official History of the Royal Canadian Air Force*, (Toronto: University of Toronto Press, 1980; W.A.B Douglas, *The Creation of a National Air Force*, vol.2. *The Official History of the Royal Canadian Air Force* (Toronto: University of Toronto Press, 1986); Breerton Greenhouse et al., *The Crucible of War, 1939-1945*, vol.3: *The Official History of the Royal Canadian Air Force* (Toronto: The University of Toronto Press, 1994).] In the meantime, for background see James Eayrs, *In Defence of Canada: from the Great War to the Great Depression* (Toronto: University of Toronto Press, 1964); and F.H. Hitchins, *Air Board, Canadian Air Forces and Royal Canadian Air Force* (Ottawa: Canadian War Museum, 1972).
2. R.A. Mason, "History of the Royal Air Forces Staff College, 1922-1972," Directorate of History and Heritage [DHH] (Formerly Directorate of History).
3. *Ibid.*
4. *Ibid.*
5. Air Chief Marshal R.I. Chapman in Mason.
6. J.L. Gordon, "Air Superiority," *Canadian Defence Quarterly* (July 1927), pp.480-482. This is a review essay of a contemporary book on air power, *Basic Principles of Air Warfare* (Aldershot: Gale and Polden). See also Gordon's "Limitations of Aircraft in Naval Warfare: A Reply to Lieutenant-Commander Ballou," *Canadian Defence Quarterly* (July 1926), pp.413-419. Gordon was senior air officer in 1932-33 after

- which he was seconded to the army where he remained as a district officer commanding in the rank of brigadier for six years.
7. G.E. Wait, "Aims and Objects: a Study in Doctrines," *Canadian Defence Quarterly* (April 1933), pp.349-353. Wait attained the rank of air vice-marshal.
 8. G. R. Howsam, "Canada's Problem of Air Defence," *Canadian Defence Quarterly* (April 1931), pp.256-360. Howsam also reached air vice-marshal rank.
 9. Ibid.
 10. Ibid. Howsam also included two Army Cooperation Squadrons in his proposal.
 11. Ibid.
 12. General Staff, "Memorandum on the Reorganization of the Non-Permanent Active Militia," 29 January 1931, Library and Archives Canada [LAC], RG 24, vol.2740, S 5902, vol.1. At the meeting of the Joint Staff Committee on 19 April 1934 the acting chief of the naval staff asked that the RCAF be detailed to assist the navy in combined operations training especially in reconnaissance and night action. The chairman, General McNaughton, replied that combined training only would be possible that year on the West Coast as all available aircraft in eastern Canada were involved in RCMP preventive (anti-smuggling) operations. "Minutes of JSC," LAC, RG 24, vol.2684, HQ 55199, vol.2.
 13. Transcript of Interview Howsam – W.A.B. Douglas, August 1975, DHH 76/120.
 14. The peculiarity of the needs of disarmament discussions leading ultimately to armament planning was not confined to Canada. As one historian has commented on British experience, "It is more than a little ironic that the Cabinet committee on the disarmament conference should be turned over to the consideration and planning of rearmament without so much as an appropriate change in title." R.P. Shay, Jr., *British Rearmament in the Thirties: Politics and Profits* (Princeton: Princeton University Press, 1977), p.34.
 15. On the Geneva talks see Shay, pp.34-47, and H. Montgomery Hyde, *British Air Policy Between the Wars, 1918-1939* (London: Heinemann, 1976), pp.274-317.
 16. See R.A. Preston, *The Defence of the Undefended Border: Planning for War in North America, 1867-1939* (Montreal:McGill-Queen's Press, 1977); Eayrs, *In Defence of Canada: from the Great War to the Great Depression*; John Swettenham, *McNaughton*, vol.1: 1887-1939 (Toronto: Ryerson Press, 1968).
 17. C.P. Stacey, *The Military Problems of Canada* (Toronto: Ryerson Press, 1940), p.86.
 18. General Staff in "Memorandum on the Reorganization."
 19. Ibid.
 20. See "Precis, Minutes of Meeting of Conference of Defence Associations, 18-19 November 1932," LAC RG 24, vol.2740, HQ55902, vol.1. Hankey, "Impressions of Canadian Defence Policy – December 1934," The National Archives, United Kingdom [TNA] CAB 63/81.
 21. The record of the RCAF's planning for the disarmament talks is in DHH 76/664.
 22. General Staff "Memorandum on the Reorganization."
 23. Minutes of the Joint Staff Committee, 14 March 1933, LAC RG 24, PARC 266198, HQ55199.
 24. Hankey preferred "clever opportunist," "Impressions of Canadian Defence Policy- December 1934,"
 25. Quoted in Eayrs, p.275.
 26. Ibid.
 27. J.L. Gordon to CGS, 11 May 1933, LAC RG 24, PARC 826453, 045-4, vol.1.
 28. Gordon was the first RCAF officer in attendance. Deputy Minister, DND, to Minister, 2 March 1932, LAC RG 24, PARC vol.829218, HQ.895-1.
 29. "Walsh to Gordon, 18 July 1932; "Peace Organization and Establishment of the RCAF considered necessary to meet minimum requirements for National Defence," DHH 76/33.
 30. Walsh retired as an air vice-marshal.
 31. Walsh to Gordon, 18 July 1932, "Peace Organization."
 32. Ibid. Walsh's proposed Permanent Forces establishment planned for 281 officers and 2,205 airmen. These numbers, he warned, exceeded those submitted earlier during the disarmament talks by 14 officers and 143 airmen. The Non-Permanent establishment was correspondingly reduced by 36 officers and 252 airmen.
 33. In 1933, the number of Permanent Force squadrons was increased by two more, all for strengthening coastal defence, for example, torpedo bomber squadrons were added. See J.L. Gordon to CGS, 11 May 1933, LAC, RG24, PARC 826453, 045-4, vol.1: CGS to Minister, 9 May 1933, LAC MG 30, E133, Series 11, McNaughton papers, vol.103; H.D. Crerar, "An Appreciation of the Defence Problems Confronting Canada with Recommendations for the Development of the Armed Forces," 5 September 1936, DHH 114.1 (D11).
 34. McNaughton, "The Defence of Canada," 26 May 1935, copy in DHH 74/256, vol.1.
 35. A copy of the testimony is in SAO file, DHH 74/56, vol.II. The full title is "Hearings before the Committee on Military Affairs, House of Representatives, 74th Congress, First Session on H.R.6621 and H.R.4130. Air Defence Bases: to authorize the selection, construction, installation and modification of permanent stations and depots for the Army, Air Corps, and Frontier Air Defence Bases generally. February 11, 12, 13, 1935."
 36. Brigadier-General Charles Kilbourne, assistant chief of staff in charge of the War Plans Division, was conscious of the sensitivity of the proposal. He wanted to locate one of the airfields in the Great Lakes area, but in order to avoid "passing away from the century-old principle that our Canadian border needs no defence," he thought that civilian fields could be constructed. "I would have been very glad to put in the bill the Great Lakes area," he noted, "but I would not put it in the bill because of the Canadian situation. You will notice No.7 in my bill is camouflaged. It is called 'intermediate' stations for transcontinental flights, but it means the same thing." Ibid.
 37. Ibid.
 38. See the External Affairs correspondence in LAC, RG 25, GI, vol.1746.
 39. A copy of the General Staff report is in DHH 74/256, vol.II.
 40. *Ottawa Evening Citizen*, 30 April 1935.
 41. "The Coordination of Canadian Defence," DHH 74/256, vol.I.
 42. From its 1930-31 level of \$7,475,700, the aviation budget was cut to \$1,600,000 in 1933-1934. It was ironic that its military responsibilities were being elevated while RCAF resources were being reduced. Most of the cuts were met by virtually eliminating civil operations which entailed discharging many of the service's short-service pilots. See Hitchins, *Air Board, Canadian Air Force and Royal Canadian Air Force*, pp.259-299.
 43. Senior Air Officer to Deputy Minister, 7 July 1938, LAC, Ian Mackenzie paper, vol.31.
 44. On King see H.B. Neatby, *William Lyon Mackenzie King*, vol.3: 1932-39 – *The Prism of Unity* (Toronto: University of Toronto Press, 1976).
 45. See, for example, LAC, Mackenzie King diary, 25-26 August 1935.
 46. Senior Air Officer to CGS, 24 September 1936, with enclosures, DHH 76/204.
 47. Senior Air Officer to CGS, 16 September 1938, with enclosed memorandum, DHH 76/40.
 48. Air Vice-Marshal G.M. Croll, Appendix to Chiefs of Staff Committee document, "Action of Canadian Armed Forces, 1939," 15 September 1939, DHH 112-S M 2009 (D36).

Bill McAndrew joined the army at age 17, was commissioned the following year and served the next eleven years as an infantry officer in Canada, Korea, Germany and Ghana. On leaving the army, a high school dropout, he attended Glendon College, York University as a mature student and gained his doctorate at the University of British Columbia. McAndrew taught at the University of Maine at Orono and directed that university's Canadian Studies programme before joining the Directorate of History in Ottawa from which he retired in 1996. His particular interest has been in the battlefield behaviour of soldiers.