TOWARDS THE BALANCED FLEET: A HISTORY OF THE ROYAL CANADIAN NAVAL AIR SERVICE, 1943-1945

by

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ABSTRACT

On December 19, 1945, the Canadian government approved in principle the formation of the Royal Canadian Naval Air Service. The origins of Canadian naval aviation, however, can be traced to the fortunes of the Royal Canadian Navy in its battle for the convoys during 1942, and its drive to gain operational control of the ships. Furthermore, the history of the Royal Canadian Naval Air Service was inextricably intertwined with the navy's desire to obtain a balanced fleet, in which aircraft carriers were deemed to be an integral component. Canadian naval aviation during the Second World War has, for the most part, been ignored in the scholarship. This thesis is an examination of the origins of Canadian naval aviation from the Canadian perspective.

Through the use of previously unseen documents and a reassessment of materials which have been overlooked, an added dimension can be given to an historical event which had a profound impact on the make-up and history of the Royal Canadian Navy both during and following the Second World War. Within the constraints of available information, some conclusions can be made about Canadian naval aviation. These conclusions challenge some of the myths that have developed about the Royal Canadian Naval Air Service.

Firstly, the birth of the Royal Canadian Naval Air Service came about as a result of efforts by a handful of Canadian naval officers, who recognized the value of naval air power to the prosecution of the war. Secondly, the development of Canadian naval aviation during the Second World War was entirely consistent given the Royal

Canadian Navy's recent experiences at sea and given the navy's primary role in anti-submarine warfare during that war. Finally, the valuable experience gained by Canadian personnel who manned H.M. Ships *Nabob* and *Puncher*, greatly facilitated the creation of the Royal Canadian Naval Air Service late in 1945.

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THE HISTORICAL CONTEXT

The Royal Canadian Navy's contribution to the Second World War has been largely ignored with the exception of works focussing on the submarine warfare and convoy responsibilities. The historiography of the Royal Canadian Navy in the Second World War still has many serious gaps despite a resurgence of interest in recent years. Examination of the Royal Canadian Navy's record began in 1952 with Tucker's standard work, The Naval Service of Canada, and Schull's official history, The Far Distant Ships. But where the former concentrated on policy and plans (operations were peripheral to the narrative), the latter indulged in uncritical though entertaining and loosely informative journalism. The reissue of Schull's work without any updating attends to its popular appeal. Thanks in large part to two conferences celebrating the seventieth and seventy-fifth anniversaries of the naval service,[1] an ever-increasing number of articles and books have dealt with the Navy. Indeed, these conferences have served to some extent as a catalyst for scholarly research and have led to two books pertaining to the Royal Canadian Navy: The RCN in Retrospect, 1910-1968 (edited by James A. Boutilier, 1982) and RCN in Transition 1910-1985 (edited by W. A. B. Douglas, 1988).

However, this scholarship represents only the beginning; much research still needs to be done. One area which has been virtually ignored in the literature is the advent of Canadian naval aviation during the Second World War. With the exception of J. D. F. Kealy and E. C. Russell's book, A History of Canadian Naval Aviation, 1918-

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[1]The Naval Service Act was given Royal assent on May 4, 1910. The first conference marking the seventieth anniversary of the Royal Canadian Navy was held in 1980 at Royal Roads Military College. The second Conference was held at the Maritime Warfare School at the Canadian Forces Base, Halifax, in 1985.

1962, as well as an article by W. A. B. Douglas entitled, "Conflict and Innovation in the Royal Canadian Navy, 1939-1945," there are only a few references to the Royal Canadian Navy's valuable contribution to naval aviation in the prosecution of the war at sea.[2] Canadian naval aviation is important not only from an operational standpoint, but also from the organizational perspective as the Royal Canadian Navy expanded from a "small-ship" navy in 1939 to a major force in 1945. Joseph Schull has provided us with this picture of the Royal Canadian Navy at the beginning of the war. It consisted of:

> Six fairly modern destroyers, five small minesweepers and two training vessels, of which one was a sailing ship. There was a naval base at Esquimalt, reasonably well fitted out by peacetime standards; and another at Halifax on the immediately threatened coast, which was in less satisfactory condition. Personnel consisted of some 3,276 ratings, all ranks.[3]

Throughout the six-year conflict the Royal Canadian Navy underwent an expansion in terms of personnel and ships which, proportionally, far outstripped the growth of the Royal Navy and the United States Navy. Indeed, the rate of expansion "was fifty to one, compared with eight to one for the Royal Navy, fourteen to one for the Royal Australian Navy, and twenty to one for the United States Navy."[4] By war's

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[2]J. D. F. Kealy and E. C. Russell's book, A History of Canadian Naval Aviation, 1918-1962, published in 1965 by the Department of National Defence (Naval Historical Section) must be considered a survey due to the time period covered and the brevity of the work. Nevertheless, it is an important reference book for Canadian naval aviation and must be consulted by anyone interested in the subject. The Douglas article can be found in Naval Warfare in the Twentieth Century 1900-1945 edited by Gerald Jordan (London: Croom Helm, 1977), pp. 210-32.

[3]Joseph Schull, The Far Distant Ships (Ottawa: Queen's Printer, 1952), p. 1.

[4]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys (Toronto: University of Toronto Press, 1985), p. ix.

end the Royal Canadian Navy had become the third largest allied navy following the United States Navy and the Royal Navy respectively. The Royal Canadian Navy had grown to some one hundred and four thousand men and women and consisted of approximately:

> Nine hundred vessels of all sorts. Many of these were local craft performing miscellaneous harbour duties, but over 375 were armed for offensive action against the enemy.[5]

Of these 375 warships, two were escort aircraft carriers. These two ships, H.M.S. *Nabob* and H.M.S. *Puncher,* were Royal Navy vessels which the British acquired from the Americans through Lend-Lease negotiations, and they were subsequently manned, with the exception of their air squadrons, by Canadian personnel during the latter stages of the war.

The acquisition of these escort carriers by the Royal Canadian Navy accorded with a desire expressed by certain members of the Naval Staff to acquire a "balanced fleet" of which aircraft carriers were deemed to be an integral part. The concept of the "balanced fleet" (that pyramid of naval power ranging from capital ships down to support vessels), pre-dates the establishment of the Royal Canadian Navy. Its origins lie in the Imperial Conferences held from 1887 to 1909. In pursuit of this objective, the Admiralty submitted two proposals which were to remain the cornerstone of Imperial Defence with respect to naval policy. The first proposal called upon the colonies to maintain existing shore facilities as well as to contribute either ships and

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[5]Gilbert Norman Tucker, The Naval Service of Canada, vol. I (Ottawa: King's Printer, 1952), p. 21.

men, or money, to the Royal Navy in what amounted to an Imperial Fleet. The second option marked a watershed in imperial defence policy. In the years 1902 to 1909 the Admiralty's strategy of concentrating its forces in home waters served as a catalyst for colonial autonomy in naval matters. While the Admiralty still favoured a single imperial navy under its control in peace and war, it was not opposed to the creation of separate dominion navies which could augment the Royal Navy in times of conflict. The dominions, however, (particularly Canada and Australia) felt that a centralized navy threatened their sovereignty. During the Imperial Conference of 1909, Sir Frederick Borden, the Canadian Minister of Militia and Defence, stated:

> That it was the desire of the Canadian government to establish a [fleet] unit on each coast. Furthermore it [is] imperative to find a means of reconciling local control by the Canadian government over its naval forces with the principle of unity of command in time of war; the best means of interchanging ships and personnel between the British and the Dominions' navies; and plans for the transitional period while the creation of complete Dominion fleet units was taking place.[6]

Although the principle of a "balanced fleet" was firmly established during the Imperial Conferences and embodied in the Canadian Naval Service Act of May 4, 1910, there was, of course, no mention of aircraft carriers. The first attempt at naval aviation occurred during the Great War when the Royal Canadian Navy undertook the establishment of the Royal Canadian Naval Air Service (R.C.N.A.S.). However, this endeavour failed. The cessation of hostilities in 1918 and the budgetary constraints

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[6]Gilbert Norman Tucker, The Naval Service of Canada, vol. I, p. 117. The smallest fleet unit suggested by the Admiralty for Imperial Defence consisted of one armoured cruiser of the Indomitable class, three unarmoured cruisers of the Bristol class, six river-class destroyers, three C-class submarines, and certain auxiliaries.

which followed, hindered the development of the Royal Canadian Navy and naval aviation during the interwar period. Although budgetary considerations, inter-service rivalry, and the combined effects of pacifism, isolationism and disarmament had a profound impact on the Royal Canadian Navy in the 1920s and 1930s, planning for a "balanced fleet" never ceased.

The first "balanced fleet" discussion came about as a result of the Empire Mission of 1919. The dominion ministers were not in favour of a single postwar Imperial Navy under the direction of the Admiralty and preferred instead to develop navies of their own. Nevertheless, recognizing the need for uniformity in organization, administration, training and equipment, the Canadian and Australian authorities requested that a highly qualified naval officer advise them on these issues and assist them in the formulation of a scheme whereby the dominions might assume a greater role in the defence of the Empire. Consequently, the Admiralty appointed Lord Jellicoe to undertake this fact-finding mission.

Prior to Jellicoe's arrival in Canada a body known as the Naval Committee was established in Ottawa in February 1919 to determine the ideal future composition of the Royal Canadian Navy, so that when a naval programme was finally adopted the foundation would already have been laid. Concomitant with the Naval Committee's work, the Naval War Staff was told to prepare a report for Lord Jellicoe which would serve as the basis for discussions relating to naval policy. In a memorandum dated July 3, 1919, the Naval War Staff stated that:

> The size and composition of such a navy would [ultimately] depend on Canadian requirements. These might be met more or less adequately in any one of four different ways; providing docking and repair facilities for the Royal Navy; creating a local naval force as well; maintaining a fleet unit in

> addition to the foregoing; and finally by means of a fair-sized fleet to include capital ships and all other components of a complete and versatile force [i.e., a balanced fleet].[7]

Consequently, in keeping with the aforementioned proposals, two tentative programmes were submitted to the Naval Committee for consideration. The first called for "18 PC-boats, 3 destroyers, and cruisers by 1926. The second programme would expand this force to include 18 PC-boats, 3 parent ships, 6 submarines, 12 destroyers, and 7 cruisers by 1934."[8] The report issued by Lord Jellicoe on December 31, 1919, went even further than the programmes envisaged by the Naval Committee.

The Jellicoe Report outlined a two-fold programme for Canadian naval policy. For the defence of Canadian waters Lord Jellicoe suggested that the composition of the Royal Canadian Navy should be as follows: "3 light cruisers, a flotilla leader, 12 torpedo craft, 8 submarines with a parent ship, and certain auxiliary small craft for training purposes."[9] However, if Canada decided to participate in Imperial Defence the Royal Canadian Navy, in addition to the coastal navy already mentioned, would need to operate either one or two fleet units. It is this next programme that mentions aircraft carriers for the first time. The fleet unit which Jellicoe recommended would consist of "a battle cruiser, 2 light cruisers, six destroyers, 4 submarines, 2 fleet minesweepers, an aircraft carrier, and certain additional vessels including a depot ship

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[7]Ibid., p. 307.

[8]Ibid., p. 308.

[9]Ibid., p. 311.

and a flotilla leader for the destroyers and a parent ship for the submarines."[10] Because there was no clear cut agreement regarding Canadian naval defence policy, and because nagging questions existed regarding the cost of such a programme, Jellicoe formulated four plans for consideration. These plans constitute four different budgetary strategies for effecting the coastal or imperial programmes outlined above. Despite the length and complexity of the Jellicoe report these plans are worthy of closer examination at this juncture.

The four plans were based on yearly estimates which would approximate respectively: 1, 2, 3½ and 5 million pounds:

(1) £1,000,000	(2) £2,000,000	(3) £3,500,000	(4) £5,000,000
	3 light cruisers 1 flotilla leader	1 battle cruiser 5 light cruisers 1 flotilla leader 6 destroyers 1 destroyer parent ship	2 battle cruisers 7 light cruisers 1 flotilla leader 12 destroyers 1 destroyer parent ship
8 submarines	8 submarines 1 submarine parent ship	8 submarines 1 submarine parent ship 1 aircraft carrier 2 fleet minesweepers	16 submarines 1 submarine parent ship 2 aircraft carriers 4 fleet minesweepers
4 local defence destroyers P-boats 4 trawler mine-sweepers	4 local defence destroyers 8 P-boats 4 trawler mine-sweepers	4 local defence destroyers 8 P-boats 4 trawler mine-sweepers	4 local defence destroyers 8 P-boats 4 trawler mine-sweepers

[10]Ibid., p. 312.

Also provided for: Administration
Training Establishments
Dockyards
Local Defences
Fuel Reserves

and, except in the case of Plan No. 1:
Wireless
Naval Air Squadron--12 machines.[11]

The first two plans were based on the requirements for a coastal navy whereas the latter plans provided for Canada's participation in imperial defence as well. Jellicoe also considered the question of naval aviation in terms of convoy defence, basing his arguments in large part on the successful aerial defence of convoys during the Great War. However, Jellicoe took the concept of naval aviation one step further when he stated that:

> Under certain conditions developments in aircraft might lead to the necessity of an aircraft-carrier accompanying each convoy . . .[12]

Furthermore, Jellicoe suggested that in order to meet the anticipated requirements of the next war it was essential to have not only the ships but a nucleus of trained personnel. While Jellicoe laid down the operational needs of the Royal Canadian Navy he left the decision regarding the composition of an air branch to future discussion. Since early attempts to establish an air branch had failed, one must look to the Second World War for the creation of Canadian naval aviation.

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[11]Ibid., p. 312.

[12]A. Temple Patterson, The Jellicoe Papers, vol. II (London: Spottiswoode, Ballantyne and Co. Ltd., 1968), p. 389.

Naval aviation played an important role in the development and expansion of the Royal Canadian Navy both during and following the Second World War. The development of Canadian naval aviation from informal discussions among high ranking Canadian naval officers in 1942, to negotiations for the acquisition of two light fleet carriers during the latter stages of the war, must be viewed in terms of Canada's search for military and political autonomy. This accounts for the Royal Canadian Navy's fervent desire "not to finish the war as a small-ship navy . . .,"[13] hence the development of the balanced fleet. The vehicles which were to make this a reality were the Battle of the Atlantic and the chronic manpower shortages experienced by the Royal Navy during that conflict.

The value of naval aviation to naval warfare has long been recognized by naval theorists and academics alike, particularly in Great Britain, the United States and Japan. Indeed, one is overwhelmed by the plethora of literature relating to naval aviation. Yet, as one surveys the Canadian naval aviation record, one is struck by the paucity of material available. Hitherto the tendency has been to focus on the Royal Canadian Navy as a subsystem of the Royal Navy, particularly from the British and to a lesser extent the American perspective. Consequently, the contribution of the Royal Canadian Navy to the war effort, both in men and material, has been overlooked by the British and American scholars.

Traditionally British accounts related to naval aviation have examined problems of naval policy, tactical doctrine, the bomb-versus-battleship debate, the highly

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[13]Directorate of History files (hereafter referred to as DHist) 81/520/1270 Conferences 1920-1945, vol. II Minutes of Meeting 11.8.43 and notes to the Quebec conference, p. 3.

contentious issue of dual control of the Royal Navy Fleet Air Arm, and the operational history of the Fleet Air Arm. These issues are important to our understanding of naval aviation in so far as they provide the contextual framework for the thesis. The literature does not, however, provide a detailed analysis of naval aviation in the Canadian context. Several works nonetheless remain crucial, for they provide the backdrop against which this thesis must be set.

Stephen Roskill's book, Naval Policy Between the Wars,[14] must be considered the best treatment of the problems affecting the Fleet Air Arm during the interwar period. Conspicuous by its absence, however, is any discussion of Imperial Defence or the Dominion role in naval aviation. Although those issues may have been beyond the scope of Roskill's book, they are particularly important ones in light of Lord Jellicoe's report, the status of the Fleet Air Arm, and the development of the Royal Canadian Navy, given the general decline in Britain's naval supremacy. Indeed, the Admiralty's attempt to secure and maintain what Paul Kennedy describes as "western naval mastery" by transferring warships to the Dominions is a recurring motif in imperial relations both prior to and during the Second World War. Despite this omission, Roskill's book forms the foundation of British naval historiography relative to the interwar period and as such must be considered a reference work of primary importance.

Roskill, of course, does not examine the Fleet Air Arm during the Second World War and the reader must look to other works such as the official history of the Fleet Air Arm and to Geoffrey Till's book, Air Power and the Royal Navy, for material

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[14]Stephen Roskill, Navy Policy Between the Wars, vols. I and II (London: Collins Clear-Type Press, 1968 and 1976).

on wartime naval air operations.[15] The Naval Staff's two-volume history, The Development of British Naval Aviation, 1919-1945, is particularly informative from an operational and technical perspective.[16] This history is based almost exclusively on primary documents, and offers valuable insights into issues not normally dealt with in the secondary literature, namely: the escort carrier building programme (that is to say the conversion of merchant/naval hulls), coupled with a comparison of Royal Navy and United States Navy carriers; changing tactical doctrine in the deployment of escort carriers; aircraft procurement and air squadron tactics; technical improvements in equipment, and statistical analyses of the operations supported by detailed narratives.

However, there are gaps in the material which are crucial to our understanding not only of the Fleet Air Arm but more importantly of the birth of Canadian naval aviation. First, there is no mention of the critical manpower shortages which affected the Royal Navy as a whole, and the Fleet Air Arm in particular, during the latter stages of the war. This manpower shortage resulted in the Royal Canadian Navy manning two escort carriers thereby freeing Fleet Air Arm resources to meet ever-increasing commitments at sea. Moreover, there is no discussion of the operations nor the contribution made by H.M.S. *Nabob* and H.M.S. *Puncher* to the prosecution of the naval war. In fact, Fleet Air Arm operations in Norwegian waters after Operation "Tungsten," (the Fleet Air Arm attack on *Tirpitz)* are seen as anti-climactic by most British naval

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[15]Geoffrey Till, Air Power and the Royal Navy 1914-1945 (London: Jane's Publishing Company, 1979).

[16]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. I and II (London: Her Majesty's Stationery Office, 1954 and 1956).

historians and therefore worthy of only cursory examination.[17] In the case of the official history the focus shifts rapidly from "Tungsten" to a discussion of trade protection for the Russian convoys and Fleet Air Arm squadrons serving with Coastal Command.

Perhaps the most useful account of Fleet Air Arm operations in northern waters, following Operation "Tungsten," is David Brown's book, Carrier Operations in World War II.[18] Although Brown's approach is simplistic and he bases his work on secondary sources he does analyze the major operations in which the escort carriers took part in the various theatres.[19] Of particular interest is his treatment of the Battle of the Atlantic and the Norwegian campaign. Moreover, Brown is one of the few scholars to recognize the contribution of the Dominions to naval aviation stating that:

> The expansion of the Fleet Air Arm was not accomplished without difficulties being experienced in both manpower and aircraft procurement. The shortage of personnel was most marked in 1941 and 1942, the years when the original aircrews and maintenance personnel had become casualties or were employed on training the "second" generation who did not become fully operational until mid-1943. A very high percentage of the aircrew officers were drawn from the Volunteer Reserves, not only from Great Britain, but also in particular Canada, New Zealand and South Africa . . .[20]

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[17]Operation "Tungsten" the most carefully planned and rehearsed Fleet Air Arm strike of the war launched against *Tirpitz* on April 3, 1944, and timed to cover the passage of a Russian convoy JW 58.

[18]David Brown, Carrier Operations in World War II, vol. I (London: Ian Allen Ltd., 1974).

[19]Unfortunately David Brown has failed to provide any documentation. As a consequence the reader cannot confirm all of his findings.

[20]David Brown, Carrier Operations in World War II, vol. I (London: Ian Allan Ltd., 1974), p. 10.

More important, however, is his recognition of the exemplary service provided by the escort carriers which:

> Bore the brunt of the Fleet Air Arm offensive in the north. All the coastal minelaying by the naval aircraft was carried out from these ships, as well as the shipping strikes mounted on similar lines to those executed by the Fleet carriers. The minelaying and bombing severely disrupted the enemy's lines of communication with his garrison troops in Norway, which depended upon the free use of the coastal waterways. More manpower and material had to be devoted to the protection of these seaways than Germany could well afford at this late stage of the war.[21]

Despite the escort carriers' shortcomings, those that served with the Home Fleet performed a vital function:

> [They] kept the enemy fully aware of the vulnerability of his long seaward flank distracting his attention from the valuable Arctic convoys which delivered more and more war supplies to the advancing Russians . . .[22]

It is recognition of the valuable service provided by the escort carriers that will form the backdrop to this thesis. Over and against that backdrop will be a detailed analysis of the operation of two of those carriers, H.M. Ships *Nabob* and *Puncher*. That analysis, in turn, will suggest that the experience gained by Canadian personnel greatly facilitated the creation of the Royal Canadian Naval Air Arm.[23]

Geoffrey Till's monograph, Air Power and the Royal Navy 1914-1945, is a

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[21]Ibid., p. 39.

[22]Ibid., p. 40.

[23]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962 (Ottawa: Queen's Printer, 1967), p. 38. Following the establishment of the Navy's air branch the question of its name had to be settled and in May 1946 the title "Royal Canadian Naval Air Arm" was agreed upon.

historical survey which focuses on the impact of air power on the Royal Navy and as such is not considered an operational history of the Fleet Air Arm. Much of what follows can be found in Stephen Roskill's Naval Policy Between the Wars. Where they differ is in Till's examination of the problems which beset the Fleet Air Arm during the Second World War, but as he notes, these problems are directly attributable to interwar plans, policies, budgetary constraints and the divisive nature of dual control. Till is correct in stating that:

> [The] survey of the Second World War leaves two dominant impressions: first, that the Fleet Air Arm and the general impact of air power at sea was of great and rapidly growing importance to the conduct of naval operations; second, that the Fleet Air Arm achieved an astounding amount with astonishingly little. The most enduring of the Fleet Air Arm's deficiencies was the continual shortage of men, aircraft and carriers in nearly all of the Navy's operations.[24]

Although British historians were cognizant of the issues and problems affecting the performance of the Fleet Air Arm it is difficult to countenance their lack of recognition of the Royal Canadian Navy in alleviating some of the problems encountered by the Fleet Air Arm.

American scholarship on the other hand is less concerned with the operations of the Fleet Air Arm than with the escort carrier building programme itself. Insofar as the operations were concerned American naval historiography relates to the different methods chosen by the United States Navy and Royal Navy to deploy their escort carriers in trade protection duties. In the Atlantic:

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[24]Geoffrey Till, Air Power and the Royal Navy 1914-1945 (London: Jane's Publishing Company, 1979), p. 185.

> United States escort carriers were generally employed in offensive hunter-killer (Huk) groups, in combination with destroyer escorts or anti-submarine warfare-modified destroyers, prosecuting High Frequency/Direction Finding or code-breaking data. The Royal Navy more frequently used the mobility inherent in its escort carrier aircraft to allow the carrier to intervene defensively in an ongoing convoy battle. Also, it is responsible for the north Russia convoys, where air attack was as much a threat as the submarine.[25]

In addition to these operations, escort carriers were used, primarily by the United States Navy, in support of amphibious operations. Consequently, much American scholarship has been devoted to discussing the relative merits of these opposing tactics.

More important to this thesis, however, is the analysis provided by Norman Friedman in U.S. Aircraft Carriers, and Norman Polmar in Aircraft Carriers, regarding the development of the escort carriers and their specifications.[26] Of particular interest was the delay involved in making American escort carriers operational for the Royal Navy. There are several factors involved not the least of which was the Admiralty's insistence that all escort carriers bound for the Royal Navy, meet British standards. The incidents which brought this issue to the forefront were the sinking of H.M.S. *Avenger* "by one torpedo hit on 15 November 1942, leaving only 17 survivors, and the sinking of H.M.S. *Dasher* in the Clyde on 27 March 1943, by gasoline explosion, with a loss of 378

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[25]Norman Friedman, U.S. Aircraft Carriers (Annapolis: Naval Institute Press, 1983), pp. 160-61.

[26]Norman Polmar, Aircraft Carriers: A Graphic History of Carrier Aviation and Its Influence on World Events (New York: Doubleday and Company Inc., 1969).

lives."[27] Another reason cited for the delay was the transfer of escort carriers to the Mediterranean to cover Operation "Torch" in North Africa in November 1942. However, the secondary literature does not fully explain the reasons for the delays even though "escort carriers began coming off the ways in March 1942."[28] W. A. B. Douglas suggests in his article "The Air Weapon in Defence of Shipping, 1914-1945," that the "deployment [of escort carriers] to the Mediterranean in support of North African landings or to carry cargoes of aircraft, and to the Pacific, suggests that the British and American naval planners were prepared to take risks with shipping while they undertook more direct support of land operations."[29]

Regardless of this omission, American scholarship does provide detailed information regarding the construction and alterations of the escort carriers bound for service with the Royal Navy. Samuel Eliot Morison is of the opinion that "the British failed to make best use of American-built escort carriers owing largely to the basic conditions under which they operated."[30] The implication here is that the Royal Navy did not deploy these carriers quickly enough to contribute to the defence of the Atlantic convoys and further that the extensive modifications were unnecessary given the success

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[27]Samuel Eliot Morison, History of United States Naval Operations in World War II, vol. X, The Atlantic Battle Won, May 1943-May 1945 (Boston: Little, Brown and Company, 1962), p. 39.

[28]DHist 86/500 article by W. A. B. Douglas, "The Air Weapon in Defence of Shipping, 1914-1945" (N.P.: n.p., 1986), p. 17.

[29]Ibid., p. 17.

[30]Samuel Eliot Morison, History of United States Naval Operations in World War II, vol. X, The Atlantic Battle Won May 1943-May 1945 (Boston: Little, Brown and Company, 1960), n. 13, p. 39.

achieved by United States Navy's carriers lacking alterations. The information furnished by authors such as Friedman and Polmar will show in subsequent chapters that these modifications were justified given the theatres and conditions in which these escort carriers served.

Finally, American scholarship has paralleled British historiography in the sense that it has tended to perceive the Royal Canadian Navy as a subsystem of the Royal Navy and therefore not worthy of examination. By focusing on the Royal Navy, American analysts assumed that the contribution of the Royal Canadian Navy has been covered. Consequently, one must turn to the Canadian literature in order to fill in the existing gaps with respect to the Royal Canadian Navy's activites during the Second World War.

The core of Canadian scholarship consists of two books and one scholarly article. Common to all three is the view that the development and expansion of the Royal Canadian Navy was dependent, at least initially, on the favour of the Admiralty and the exigencies of the Battle of the Atlantic and secondly on the planning of the Canadian Naval Staff itself. The extensive transfer in 1944 of ships:

> to the Canadian navy was, from the point of view of the Admiralty, an expedient for solving the latter's greatest problem, an extreme shortage of men. From the Canadian point of view it was an opportunity, which the Naval Staff at least was most eager to seize, to remodel the Royal Canadian Navy.[31]

W. A. B. Douglas, however, contends in his article "Conflict and Innovation in the

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[31]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 85.

Royal Canadian Navy, 1939-1945,"[32] that the pressure for expansion emanated from the Admiralty and the "Imperial Navy" men found in the hierarchy of the Royal Canadian Navy. It will be shown in subsequent chapters that insofar as Canadian naval aviation was concerned, expansion came at the insistence of Canadian naval authorities.

J. D. F. Kealy and E. C. Russell's A History of Canadian Naval Aviation 1918-1962, is the only secondary source available which provides a narrative account of Canadian naval aviation that focuses almost exclusively on operations. Given the lengthy period covered by the book, Kealy and Russell can only highlight the major operations in which H.M.S. *Nabob* and H.M.S. *Puncher* took part. Nevertheless, they have revealed that both *Nabob* and *Puncher* took part in more operations than other historians have recognized. Indeed, some historians have claimed that H.M.S. *Puncher* was used exclusively in a ferrying capacity. This is not the case and that fact will be examined in the operational history of these carriers.

Very little attention has been paid to the plans and policies of the Naval Staff with regard to the creation of a naval air arm. Moreover, the negotiations between the Admiralty and the Naval Staff have only enjoyed cursory treatment. As W. A. B. Douglas points out, confrontations between the Naval Staff, Prime Minister Mackenzie King and the Admiralty are key to our understanding of the evolution of the Royal Canadian Navy from a small-ship navy to a "blue-water" fleet.[33] An object of this

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[32]Found in Gerald Jordan, Naval Warfare in the Twentieth Century 1900-1945 (London: Croom Helm, 1977), ch. 13.

[33]W. A. B. Douglas, "Conflict and Innovation in the Royal Canadian Navy, 1939-1945," in Gerald Jordan, ed., Naval Warfare in the Twentieth Century 1900-1945 (London: Croom Helm, 1977), p. 210.

thesis is to examine in detail these confrontations which altered the very fabric and composition of the Royal Canadian Navy radically. While most scholars have recognized the need for naval aviation if the Royal Canadian Navy was to become a modern fleet capable of fulfilling the duties assigned to it both during and following the Second World War, very few have addressed the issue.

The purpose of the thesis then is threefold. First, to trace in a narrative style the origins and development of naval aviation in the Royal Canadian Navy, chronicling the major operations and fleshing out the gaps in the existing literature. By focusing on H.M.S. *Nabob* and H.M.S. *Puncher* the thesis will argue that the experience gained by Canadian personnel serving in these two Royal Navy escort carriers greatly facilitated the creation of a naval air arm. Second, by examining the broader issue, namely the role assigned to the Royal Canadian Navy, we will see that naval aviation and the balanced fleet was logical in terms of the evolution of the Royal Canadian Navy. Accordingly, the thesis will examine the plans and policies formulated during the Second World War which led to the transformation of the Royal Canadian Navy. It is hoped the thesis will shed light on an often forgotten but nevertheless important aspect in the development of the Royal Canadian Navy.

CHAPTER ONE

THE BATTLE OF THE ATLANTIC: THE STRUGGLE BEGINS

> The Battle of the Atlantic was the dominating factor all through the war. Never for one moment could we forget that everything depended ultimately on its outcome and amid all other cares, we viewed all its changing fortunes day by day with hope and apprehension.
>
> --Winston Spencer Churchill

> The defeat of the U-boat . . . is the prelude to all effective aggressive operations.
>
> --Mr. Churchill, at a conference of Ministers of the Crown, 11th February 1943.

Following the Great War the Royal Canadian Navy fought to remain afloat in the face of inter-service rivalry, reduced expenditures, neglect and pacifism in the form of disarmament which affected not only the navy but the army and airforce as well. However, events in Europe and Asia during the 1930s served as a catalyst for change in military circles. With the rise of Japanese militarism and the rise to power of Adolf Hitler in Germany, Canadian naval authorities began to consider the possibility that war would have to be waged on two coasts. To that end, Acting Chief of the Naval Staff, Commodore Percy Walker Nelles, recommended in a memo dated November 21, 1934, that:

> the minimum force of 6 destroyers and 4 minesweepers should be increased in the least expensive way possible by the addition of 12 auxiliary vessels. . . . [But he observed that] this force would suffice only to afford a minimum of

security on one coast . . .[1]

Nelles' predecessor Commodore Walter Hose, Chief of the Naval Staff, from 1921 to 1934, had put forward a similar proposal in 1930. This force, however, would not be reached until 1938, and would include only three of the original twelve auxiliary vessels that Nelles' memorandum requested.

Concomitant with the plans proposed by the Naval Staff, the tri-service Joint Staff Committee established on June 9, 1927, to coordinate the work of the three services and advise on matters of defence, tabled a lengthy memorandum in the summer of 1936.[2] The Committee not only reiterated most of the proposals set forth by the Chief of the Naval Staff in 1934 but called for an extensive programme of naval expansion that:

> included the providing of base-defence equipment, ammunition, and an increase in naval personnel including reserves. . . During the five years following the completion of this [building] programme it was proposed to increase the number of destroyers to 8, and also to acquire a flotilla leader and 4 more minesweepers. The total naval force would then consist of a complete flotilla of destroyers and 8 minesweepers.[3]

Eschewing imperial defence the committee continued to plan for home defence. Nevertheless it was not oblivious to the possibility of a global conflict, and

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[1]Gilbert Norman Tucker, The Naval Service of Canada, Vol. I (Ottawa: King's Printer, 1952), p. 354. See Appendix I for a list of key Royal Canadian Navy officers and their appointments, 1939-1945.

[2]Ibid., pp. 340-56. This committee, which had no executive functions, consisted of the Chief of the General Staff, Chief of the Naval Staff, and the Director of the Air Force.

[3]Ibid., p. 358.

concluded that "if such a conflict were to occur, the same relentless forces that had drawn the Dominion and afterwards the United States into the Great War would again make their influence felt, perhaps with even greater intensity."[4] Yet, the defence of Canada by means of overseas commitments was still considered by the Joint Staff Committee to be of secondary importance. Hence the Committee's "highly theoretical musings of the need for readiness to defend Canada's neutrality in the case of war between the United States and Japan, and in more attention being paid to the defences of the Pacific than those of the Atlantic . . ."[5]

By 1937 the Joint Staff Committee prepared a memorandum for the upcoming Imperial conference which stated that if such a war should break out it was unlikely that Canada could remain neutral; and further, that cooperation with the Royal Navy was essential to the protection of Canada's important Atlantic trade.[6] However, by 1938 both the Minister of National Defence, the Honourable Ian Alistair MacKenzie, and the Joint Staff Committee felt that owing to continued international tension the primary threat had shifted from the Pacific to the Atlantic coast. In a revised memorandum dated July 22, 1938, the Committee outlined the forces required to meet the growing threat on the Atlantic coast:

> a flotilla leader should be acquired as soon as possible, and an immediate increase in personnel. They also suggested that orders for 2 motor torpedo boats and 2 anti-submarine vessels should be placed with Canadian firms, so that experience in building these vessels might be gained with a view to the

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[4]Ibid., pp. 356-57.

[5]C. P. Stacey, Arms, Men and Governments: The War Policies of Canada, 1939-1945 (Ottawa: Queen's Printer, 1970), p. 3.

[6]Gilbert Norman Tucker, The Naval Service of Canada, vol. I, p. 360.

> ultimate provision of at least a flotilla of motor torpedo boats for each coast and of 8 anti-submarine vessels for the east . . . The authorities were also asked to consider the desirability of purchasing one or more cruisers as soon as the navy should be in a position to provide crews for them . . .[7]

According to the Committee, the main threat to the east coast was the German Navy (Kriegsmarine) the strong surface fleet consisting of the *Scharnhorst* and *Gneisenau,* and the three "pocket battleships" of the Deutschland class. Owing to their armament, speed and cruising radius, these surface raiders were particularly well-suited to carry out raids against commerce along the Atlantic coast.[8] The Joint Staff Committee also envisioned "minor attacks by combined sea, land, and air forces, or sporadic hit-and-run raids by light cruisers or submarines,"[9] against merchant shipping and ports.

By the summer of 1938 the "minimum, single coast, defensive flotilla" was complete with the acquisition and subsequent commissioning ex-H.M. Ships *Crescent* and *Cygnet* (as H.M.C. Ships *Fraser* and *St. Laurent* on February 17, 1937), and ex-H.M. Ships *Comet* and *Crusader* (H.M.C. Ships *Restigouche* and *Ottawa* respectively, on June 15, 1938).

By the end of the same year the four Basset-class minesweepers entered service as H.M.C. Ships *Fundy, Gaspé, Comox,* and *Nootka.* Although planning for an

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[7]Ibid., p. 366.

[8]*Scharnhorst* and *Gneisenau*: announced displacement 26,000 tons; supposed speed c. 29 knots, guns, 9-ll", l2-5.9", and smaller.*Deutschland* (later *Lutzow), Admiral Scheer, Graf Spee*: displacement, 10,000 tons; speed, 26 knots; range, 18,000 miles at 13 knots; guns, 6-ll", 8-5.9", and smaller. Gilbert Norman Tucker, The Naval Service of Canada, vol. I, n. 59, p. 365.

[9]Ibid., p. 362.

enlarged naval service had begun in earnest in 1932, it was not until after 1935 that the naval Estimates increased to any appreciable degree. The naval Estimates for the years 1934-35 were "2,222,000 and increased thereafter to $8,800,000 by 1939-40"[10]; the bulk of this was earmarked for the acquisition of the four destroyers and the building of the four minesweepers.

Although events in both Europe and Asia during the 1930s served as a catalyst for naval expansion,

> the Royal Canadian Navy on the eve of the Second World War remained essentially a small-ship navy consisting of six destroyers, four Basset-class minesweepers, one antiquated minesweeper from the Great War, and two auxiliary training vessels.[11]

Despite the increases in naval appropriations from 1936 to 1939, and the acquisition of these ships, the Royal Canadian Navy was ill-prepared for the tasks that lay ahead.

In the House of Commons debates of 1938, the Minister of National Defence stated that the Royal Canadian Navy was to ensure:

> . . . The defence of our focal sea areas. [Consequently] we require sea and air forces capable of finding and destroying hostile service [surface?] [sic] craft, submarine or aircraft raiders, and this requires aircraft and naval strength . . . A slight increase in our naval forces is vital and essential, in cooperation with air and militia services, for the preservation of our neutrality, and the defence of our focal areas, our trade routes, our terminals and our ports.[12]

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[10]Ibid., p. 348.

[11]Joseph Schull, The Far Distant Ships, p. 1.

[12]Gilbert Norman Tucker, The Naval Service of Canada, vol. I, p. 362.

Particularly significant insofar as the navy's future role is concerned was the Minister's recognition of the importance of the trade routes. Although this implied cooperation with the Royal Navy, no formal agreement existed as yet between the two navies. In an attempt to settle this issue the Admiralty asked the then Commander-in-Chief, America and West Indies Station (Vice-Admiral Sir Sidney Meyrick) to determine what assistance would be forthcoming from the Royal Canadian Navy in event of war.[13]

To that end, Vice-Admiral Meyrick paid a visit to Ottawa on June 28-30, 1939, and met with Prime Minister Mackenzie King and the Minister of National Defence, the Honourable Ian A. MacKenzie. As a result of their meeting, Vice-Admiral Meyrick was able to report that the Prime Minister "would agree to cooperate with the Royal Navy as soon as Parliament had given its approval, but he could give no formal assurance at that time."[14] This response epitomized Mackenzie King's long-held policy of maintaining Canadian autonomy in defence arrangements with Great Britain.

As Mackenzie King's official biographer notes, from the time King became Prime Minister he:

> consistently opposed commitments to the League of Nations, to the United Kingdom, to the British Empire or Commonwealth or to any national or international authority which might involve Canada automatically in war. This was not because he was a pacifist or even an isolationist. There is not the slightest ground for thinking Mackenzie King ever seriously contemplated the possibility that Canada could or would attempt to remain neutral in any major war in which Britain should be engaged. Rather, it flowed naturally from his profound belief in Responsible Government that he instinctively felt any commitment as to the supreme act of a nation should be made by a self-governing people through their own government and Parliament in light of

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[13]C. P. Stacey, Arms, Men and Governments: The War Policies of Canada, 1939-1945, p. 80.

[14]Ibid.

actual circumstances at the time a specific decision had to be made.[15]

Mackenzie King's government pursued a middle-of-the-road approach to foreign policy by eschewing imperial defence and by avoiding large-scale commitments; it preferred instead limited liability in case of war. The Under-Secretary of State for External Affairs, Mackenzie King's trusted advisor, O. D. Skelton, held similar views and probably helped to shape the Prime Minister's policies. Indeed, Skelton "advised his chief to concentrate on air rather than land commitments so that military activity overseas and manpower problems at home would be kept to a minimum."[16] Skelton further stressed that the provision of munitions, raw materials and foodstuffs was more important than any military effort Canada might provide.[17] This approach to the war effort certainly would have appealed to Mackenzie King's anti-military prejudices. One would expect that Mackenzie King's anti-military attitude would have applied to the army and airforce in general and to the Royal Canadian Navy in particular given its British traditions. However, this was not the case. His prejudices "focused almost exclusively on the Army the most national of the services. He had little awareness of the navy, the smallest of the forces, which seemed to represent no threat to the manpower situation [conscription] which was his most obsessive concern."[18] Regardless

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[15]J. W. Pickersgill, The Mackenzie King Record, vol. I (Toronto: University of Toronto Press, 1960), p. 11.

[16]W. A. B. Douglas and Brereton Greenhous, Out of the Shadows: Canada in the Second World War (Toronto: Oxford University Press, 1977), p. 20.

[17]Ibid.

[18]C. P. Stacey, Arms, Men and Governments: The War Policies of Canada, 1939-1945, p. 308.

of Mackenzie King's attitude toward the military, his policy of independence in external affairs, would have a profound impact on the Royal Canadian Navy during the Second World War, and beyond.

At the outset of hostilities, the Royal Canadian Navy was quite prepared to surrender operational control of its fleet to the Admiralty, as had been done during the previous war. Just prior to the outbreak of war the Chiefs of Staff Committee defined the role of the Canadian navy in a memorandum dated August 29, 1939.[19] The Committee stated that the navy was to "organize auxiliary forces as rapidly as possible, in order to give protection to shipping against mine and submarine attacks in Canadian waters, at the same time to assist the British forces in keeping the sea communications clear of enemy vessels."[20] It is significant for our purposes that none of the early discussions or plans for the defence of sea communications dealt with the question of aerial protection of shipping. While this memorandum clearly outlined the duties assigned to the Royal Canadian Navy, there was as yet no formal agreement between the respective navies regarding the degree of cooperation in naval matters. The Admiralty continued to press for a decision in this matter. In a memorandum dated September 6, 1939, they requested that the "six destroyers of the Royal Canadian Navy be placed under Admiralty orders."[21] Stacey notes that, as early as September 1, 1939, the Chief of the Naval Staff, Rear-Admiral Percy W. Nelles (the day the navy was

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[19]Gilbert Norman Tucker, The Naval Service of Canada, vol. I, n. 57, p. 365. In January 1939 the Joint Staff Committee was renamed the Chiefs of Staff Committee.

[20]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, pp. 21-22.

[21]C. P. Stacey, Arms, Men and Governments: The War Policies of Canada, 1939-1945, p. 309.

placed on active service), submitted a draft order-in-council placing the fleet "at the disposal" of the Admiralty. This was not passed.[22] Following the Admiralty's request of September 6, 1939, Nelles put forward the same recommendation again, but it was in turn rejected. The issue involved an interpretation of the term "cooperate." In an attempt to resolve the matter Nelles drafted a memorandum to the Minister of National Defence outlining his views:

> In my opinion it is most desirable that we have one Officer and Staff only directing naval operations at sea on the America and West Indies Station and the most suitable person is the Commander-in-Chief of the Station . . .
>
> If cooperation means that the Commander-in-Chief, America and West Indies Station will direct operations of H.M. and H.M.C. Ships on the America and West Indies Station as was done in the last war with great success, then it achieves my object and will be eminently suitable.
>
> The case in point is that four destroyers cannot defend our East Coast and focal areas. The Commander-in-Chief has therefore stationed two eight inch gun cruisers to add to our efforts. . . .[23]

An order-in-council dated September 14, 1939, granted authority for the Royal Canadian Navy "to cooperate to the fullest extent with the forces of the Royal Navy."[24] However, the Canadian government remained the final arbiter in terms of the deployment of H.M.C. Ships. Given the size of the Royal Canadian Navy and the fact that it could not fight an independent naval war, the order-in-council placed the ships for all intents and purposes under Admiralty control. On November 17, 1939, another order-in-council ordered that "all Canadian Naval Establishments and all H.M.C. ships now in

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[22]Ibid.

[23]Ibid.

[24]Ibid.

commission or to be commissioned, together with officers and seamen serving therein, shall during the present war cooperate to the fullest extent with the Royal Navy, and with all other Naval Forces of His Majesty."[25] These two orders-in-council effectively set the course for Canadian naval policy until 1943.

At the outset of the hostilities the Royal Canadian Navy was ill-equipped and unprepared not only for the dimensions of the coming struggle, but for the type of naval war her forces would have to wage. Naval doctrine in Allied circles still clung to the cherished traditions of battle fleet confrontations. The Royal Navy for example was "obsessed by the lessons learnt from the indecisive clash with the German High Seas Fleet in May 1916."[26] This Jutland fixation manifested itself in the battle fleet argument that a decision could only be achieved at sea through two fleets in line-ahead formation cannonading each other, on parallel courses and at very long range.[27] The Royal Canadian Navy was not immune to such thinking. Of course given the size of its fleet the navy could only hope to provide destroyers as screens for battleship and cruiser task forces in fleet operations.

Simply put, the Royal Canadian Navy and the Chief of the Naval Staff, Vice-Admiral Percy W. Nelles, in particular, failed to recognize the potential of the submarine and the serious threat it posed to mercantile shipping. Writing in 1937, Nelles reasoned that:

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[25]Ibid.

[26]Stephen Roskill, Navy Policy Between the Wars, vol. I (London: Collins Press, 1968), p. 533.

[27]Ibid.

> If international law is complied with, submarine attacks [on] merchant shipping should not prove serious. And in the event of unrestricted warfare . . . the means of combating submarines are considered to have so advanced that the telling system of convoys and combined air/sea operations would wreak a heavy tollof U-boats and likely "compel the enemy to give up this form of attack."[28]

Nelles was sadly mistaken in his appreciation of the situation. In all fairness, however, his analysis reflected an essentially British and erroneous view, based upon the performance of the underwater detection device called Allied Submarine Detection Investigation Committee (asdic).[29] The Admiralty were so confident about asdic's ability to detect submarines that they reported to the Shipping Defence Advisory Committee in 1937 that "the submarine should never again be able to present us with the problem we were faced with in 1917."[30] There was reason to believe that if warships were equipped with asdic and if the operators were thoroughly trained, enemy submarines could easily be detected. Unfortunately, there were two major flaws in the Admiralty's appreciation of the situation. Firstly, the Admiralty did not comprehend submarine tactics fully. In

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[28]"Defence of Trade," P.A.C., MG 27, III, B5, N.37, file D-26, as cited in Michael L. Hadley, U-Boats Against Canada: German Submarines in Canadian Waters (Kingston and Montreal: McGill-Queen's University Press, 1985), p. 11.

[29]Ibid.

[30]Stephen Roskill, The War at Sea, 1939-1945, Vol. I, The Defensive (London: Her Majesty's Stationery Office, 1954), p. 34. The principle of the asdic is that if an alternating electric current is applied to a quartz crystal suspended beneath a ship the crystal expands and contracts and its vibrations cause a pulse of sound waves to be sent through the water. If these waves strike an obstacle they are reflected, and the reflections are received in the crystal which sent them out. The application of this principle to anti-submarine warfare was greatly advanced from 1927 onwards by the staff of the Admiralty's anti-submarine experimental establishment at Portland. It must be understood, however, that although the asdic gave the direction of the submerged target and its distance it did not give its depth. The depth at which to explode the depth charges could therefore only be guessed.

order for asdic to work properly the submarine had to remain submerged. However, Admiral Doenitz, the German Commander U-boats (BDU), was to employ his U-boats in surface attacks at night when the "submarine . . . presented a very small and inconspicuous silhouette."[31] Secondly, technical problems with asdic itself, coupled with varying sea conditions, often allowed the submarine to escape detection. Asdic operations were prone to:

> serious distortion and obstruction by the natural elements. Thermal and saline layers, for example, or even opposing tidal flows and currents . . . could "bend" or "deflect" the asdic waves; this could give an operator the impression that the target was far removed from where it actually was. In addition, cavitation around the asdic dome caused by the attacker's own speed and hull shape could create a barrier to sound waves, thus virtually blanketing all means of target detection. Then, too, the pitching and rolling of a ship in rough weather could cause momentary asdic blackouts. In theory, of course, some of these difficulties could be calibrated in order to provide general operating guidelines. But the parameters of one particular latitude, sea state, weather condition, water depth, and density might not hold true in constantly shifting, regionally influenced conditions elsewhere.[32]

The Allies had forgotten all that they had learned in the Great War, namely: the best means to protect trade in view of the threat posed by Doenitz's submarines. The two key lessons that had to be relearned was the use of air power and the

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[31]Admiral Doenitz, Ten Years and Twenty Days (London: Weidenfeld and Nicolson, 1959), p. 14. According to Doenitz the "U-boat School had been teaching the young crews that when a U-boat discharged its torpedoes submerged it must do so at a range of over 3,000 yards from the target, in order to avoid detection by the British asdic apparatus. When [he] assumed command of the Weddigen Flotilla at the end of September 1935, [he] strenuously opposed this idea. [He] did not consider that the efficient working of asdic had been proved. [He] considered that the U-boat was ideal as a torpedo-carrier even at night and in a surface attack."

[32]Michael L. Hadley, U-Boats Against Canada: German Submarines in Canadian Waters, p. 12.

institution of convoys to protect merchant shipping. It was to be a costly lesson for the Allies.

Canada formally declared war on Germany on September 10, 1939, a week after Britain and France. The Royal Canadian Navy, however, had been on active service since September 1, 1939, the day German forces crossed the border into Poland, thus launching the second major war of the twentieth century. The Battle of the Atlantic, as it came to be called, began in earnest and continued unabated for almost six years until May 8, 1945, the date of Germany's surrender.

In order to meet the threat of German capital ships and submarines operating off the east coast, the destroyers H.M.C.S. *St. Laurent* and *Fraser* were ordered by Naval Service Headquarters on August 1, 1939, to Halifax. Prior to receiving this order the Royal Canadian Navy was deployed in the following manner:

	East Coast		West Coast	
Destroyers	H.M.C.S.	*Saguenay* *Skeena*	H.M.C.S.	*St. Laurent* *Fraser* *Ottawa* *Restigouche*
Minesweepers		*Gaspé* *Fundy*		*Armentières* *Comox* *Nootka*
Others		*Venture* (training schooner)		*Skidegate* (motor vessel)[33]

Both ships were placed on patrol and escort duty upon their arrival in Halifax. Four destroyers were now operating on the east coast, leaving H.M.C.S. *Ottawa* and

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[33]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 7.

Restigouche to provide protection in the Pacific. The Royal Canadian Navy sought to place the East Coast destroyers under the control of the nearest British flag officer, Commander-in-Chief, America and West Indies Station. This according to Milner "was a natural course of action for the [navy], since its fleet was too small to ensure proper defence of Canada and its peacetime links with the squadron were strong."[34] Moreover, affiliation of this sort would allow the Royal Canadian Navy to engage in fleet operations and offensive sweeps in search of surface raiders--duties for which the navy had been trained. However, while these arrangements made perfect sense to Canadian naval officers, they ran counter to the government's intention that Canada should play an independent military role. The notion that:

> The navy should participate in some form of commonwealth force was rejected and the Royal Canadian Navy was instructed to keep the ships home. Bowing to the inevitable, the [navy] began using its powerful and fairly modern destroyers to escort trade convoys in the approaches to Halifax harbour.[35]

The first nine months of the war was a relatively quiet period for the Royal Canadian Navy--at least operationally. In addition to providing local escort for trade convoys in the approaches to Halifax harbour, Naval Service Headquarters had stationed one destroyer, H.M.C.S. *Saguenay,* with the America and West Indies Squadron in order to provide anti-submarine protection for convoys in and out of Jamaica. In December 1939 *Saguenay* was replaced by H.M.C.S. *Assiniboine--ex*-H.M.S. *Kempenfelt.*[36] Also, in

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[34]Marc Milner, North Atlantic Run: the Royal Canadian Navy and the Battle for the Convoys, pp. 13-14.

[35]Ibid., p. 14.

[36]On October 19, 1939, H.M.S. destroyer *Kempenfelt,* for which the Canadian government had been negotiating was turned over to the Royal Canadian Navy and

the same month H.M.C.S. *Ottawa* and *Restigouche* were transferred from Esquimalt to Halifax, and were assigned to patrol and escort duties, following refit on the west coast. By the end of 1939 all seven destroyers were stationed on the East Coast.

The single most important decision taken during the initial stage of the war, and one which would have a profound impact on the Royal Canadian Navy, was the Admiralty's decision to implement a worldwide convoy system. Although the Admiralty had made preparations for such a plan, "the exact time of introducing convoy would depend upon circumstances: upon the severity of U-boat attacks, the number of escorts actually available, whether surface raiders had begun to inflict heavy losses, in fact, upon the general climate of the war at the time."[37] There were those in the Admiralty who were reluctant to institute a system of convoy for merchant shipping. This attitude was perhaps best illustrated by Winston Churchill, the first lord. He was concerned about what he called "the immense slowing down of trade"[38] caused by the convoy system. Churchill argued: "We must secretly loosen up the convoy system, especially on the outer routes."[39] What Churchill envisaged was:

> an independent flotilla which could work like a cavalry division on the approaches, without worrying about the traffic or U-boat sinkings, but could systematically search large areas over a wide front. In this way these areas would become untenable to U-boats, and many other advantages would flow

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recommissioned H.M.C.S. *Assiniboine.*

[37]John Winton, Convoy: the Defence of Sea Trade 1890-1990 (London: Michael Joseph Ltd., 1983), pp. 126-27.

[38]Ibid., p. 126. Churchill at the time was the First Lord of the Admiralty. Admiral Sir Dudley Pound, the First Sea Lord also held similar views vis-a-vis convoys.

[39]Ibid.

from this manoeuvre.[40]

Those who were opposed to convoys based their argument on the delays to shipping imposed by the rigorous scheduling of convoys and on the apparently defensive nature of convoying. The Admiralty overlooked the fact that ships sailing in convoy escorted by warships stood a much better chance of survival than ships sailing alone. They also did not see that convoys forced submarines to risk a fight with the naval escort in order to attack merchantmen, thereby giving the defenders their best opportunity to engage the enemy. The success of the convoy system also depended on adequate air and surface escort. At this juncture in the war the Royal Navy had a limited number of fleet carriers available and the Admiralty was hesitant to deploy these carriers for trade protection duties. At that time convoying was considered by the Admiralty as defensive in nature and incongruent with the Royal Navy tradition of dashing offensives.

The Admiralty had taken formal control of all British and Commonwealth shipping on August 26, 1939. "The code word 'Funnel' was broadcast to all ships and control stations indicating Admiralty convoy instructions were in force."[41] The Admiralty exercised control of shipping through the Naval Control Service. The duties of the Naval Control Service were to route merchant ships as directed by operational authorities and to report all shipping movements. The nerve center of the organization was the plotting rooms of the Operational Intelligence Centre, Admiralty, which kept

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[40]Ibid., p. 130.

[41]Wilfred Gourlay Lund, "The Strategy of the Commonwealth Anti-Submarine Forces Against the U-Boats in the Battle of the Atlantic: September 1939 to May 1943," (Victoria: University of Victoria, 1971), p. 24, unpublished honours paper.

track of all British merchant vessels. All the area headquarters of the Naval Control Service, such as Halifax, kept a plot of the ships in their respective area. The section which assumed responsibility for all facets of shipping organizations was the Trade Division.

The system depended upon effective lines of communication. To that end, the Admiralty established a global shipping intelligence network by dividing the world into areas, each with its own intelligence centre. Every important port within an area had a Reporting or Naval Control Service officer who passed a daily message, the arrivals and departures of every British merchant vessel. Eventually this system would evolve to include all merchant shipping regardless of nationality. This system became more complex as the war progressed and all information which facilitated the rerouting of merchant shipping or convoys on passage came to be included.[42]

Naval Control Service officers played an important role in making the convoy system work. Their duties entailed the routing of convoys, the mustering and formation of convoys in ports of departure, and the briefing of masters at the Convoy Conference prior to sailing. Once the convoy left port, it became the responsibility of the Convoy Commodore to execute tactical manoeuvres and maintain convoy discipline. However, the Naval Control Service rerouted convoys clear of danger areas based on information supplied by the Operational Intelligence Centre.

The sinking and subsequent loss of the British liner S.S. *Athenia* to U-30 on the night of September 3-4, 1939, off the west coast of Ireland with the loss of 128

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[42]Naval Staff History, Defeat of the Enemy Attack on Shipping 1939-1945 (London: H.M.S.O., 1957), I, p. 54.

lives, demonstrated the fallacy of the Admiralty's decision regarding convoys. This disaster, then, marked the beginning of unrestricted submarine warfare in the Western Approaches. As a direct result of that sinking the Commander-in-Chief, America and West Indies Station, informed the Royal Canadian Navy on September 7, 1939, that:

> [the] Admiralty intends that convoys should be started from Halifax, Kingston, and Sierra Leone as soon as possible . . . Convoys from Halifax and Kingston will be approximately 30 ships and must be capable of making good average speed of 8 knots . . . Senior Officer, Halifax and Caribbean Sea Force is to provide whatever escort is necessary and possible from the forces.[43]

Nine days later on September 16, 1939, the first Halifax (HX-1) convoy set sail bound for Britain. This convoy was escorted by H.M.S. cruisers *Berwick* and *York* and the Canadian destroyers *St. Laurent* and *Saguenay.* The merchant ships were escorted to 56° West (450 miles east of Halifax), at which point they dispersed and proceeded independently. The ships reformed into convoy before reaching 12½° West (350 miles west of Londonderry), where they were met by local escorts operating in the Western Approaches and were shepherded to their final destination. Ships were sailed independently which could maintain at least 15 knots or could not maintain 9 knots for the duration of the passage.

On September 17, 1939, the Royal Navy was dealt its second serious blow. The aircraft carrier H.M.S. *Courageous* was operating in the Western Approaches, as part of a "hunter group," when it was torpedoed by U-29 and sunk with the loss of 519 lives.[44] This episode demonstrated beyond a shadow of a doubt the heresy of the

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[43]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, pp. 11-12.

[44]John Winton, Convoy: The Defence of Sea Trade 1890-1990, p. 129.

offensive patrol. Although aircraft carriers would not be employed in this role again by the Royal Navy, the notion prevailed. Evidently the Admiralty were slow to learn from their mistakes and continued to underestimate the capabilities of the U-boat.

The Royal Navy showed its mounting concern over the situation in a report submitted to the Cabinet by the Special Committee on Anti-Submarine Warfare on September 30, 1939. In less than a month U-boats had accounted for 41 ships, totalling 153,879 tons. The committee under Vice-Admiral Sir T. H. Binney observed that "the best position for anti-submarine vessels is in company with a convoy . . .," and the [committee] recommended that "for the present every anti-submarine vessel with sufficiently good seakeeping qualities should be employed with convoys rather than in hunting units."[45] The Vice-Chief of the Naval Staff endorsed the recommendation and stated, "This is the principle adopted."[46] End-to-end convoy escort would, however, have to wait until sufficient numbers of ships could be built in order to provide the necessary protection. In the interim, shipping losses continued to mount. By the end of 1939 "merchant ship losses were 114, of which twelve were sunk in convoy and five as stragglers from convoys, totalling 421,156 tons."[47]

By early 1940 Canada's limited involvement, in the Battle of the Atlantic, changed dramatically. The Canadian "Naval Council received approval from the Cabinet War Committee to place all of the Canadian destroyers under the Admiralty's

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[45]S. W. Roskill, The War at Sea, vol. I, The Defensive (London: Her Majesty's Stationery Office, 1954), pp. 134-35.

[46]Ibid., p. 135.

[47]John Winton, Convoy: The Defence of Sea Trade 1890-1990, p. 130.

operational control."[48] This request from the Admiralty, was recommended by the Naval Council for two reasons: "first, the Admiralty were better able to take a worldwide view of naval dispositions and ensure that every ship was profitably employed; second, it was pointed out that these dispositions would be to Canada's advantage."[49] While it was certainly true that the Admiralty had a better grasp of the strategic situation and was therefore in a better position to deploy the ships where they would do the most good, it remains unclear how this decision was supposed to benefit Canada. It may well be, as Milner asserts, that "the government's change of heart not only suited the navy's burning desire to join in the 'active operations' of more distant waters, but was also perhaps a response to public pressure for a more active involvement in the war."[50] What is clear, however, is the fact that the decision of the Cabinet War Committee committed the Canadian government to a policy of loaning ships to the Royal Navy. This set the stage for Royal Canadian Navy-Royal Navy cooperation and would eventually translate into the manning of H.M. Ships *Nabob* and *Puncher.*

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[48]W. G. D. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43," in The RCN in Retrospect, 1910-1968, ed., James A. Boutilier (Vancouver: The University of British Columbia Press, 1982), p. 139. In January 1940, on the initiative of the Director of Plans, regular staff meetings became the practice. In August 1940 the "Naval Council" was formally constituted by order of the Minister. Its function was to discuss matters of policy affecting the navy, and to consider matters of administration. The Naval council ceased to exist in 1942, its functions being divided between the Naval Board and the Naval Staff. The Cabinet War Committee superseded the Emergency council which was established on August 30, 1939, by an Order-in-Council. The War Committee was to consider questions of general policy, to consider reports from special committees and to coordinate war activities.

[49]Ibid.

[50]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 21.

As the situation in Europe deteriorated during the spring of 1940, Naval Service Headquarters received an urgent request from the Admiralty for assistance in defending Great Britain against possible invasion. As the Germans assumed control of Western Europe following the fall of France on June 22, 1940, and Britain was faced with the possibility of invasion, "there was no question of the Canadian government taking a stand on the [issue] of autonomy . . ."[51] The "Canadian Chiefs of Staff and the British, including Prime Minister Churchill (by whose opinion Mackenzie King set great store), were able to convince the Canadian prime minister that Canada's first line of defence was the English Channel."[52] Accordingly, at the end of May the Canadian destroyers *Restigouche, Skeena* and *St. Laurent* set sail from Halifax for Britain. The other three destroyers *Assiniboine, Ottawa,* and *Saguenay,* in refit at that time, followed shortly thereafter. Finally H.M.C.S. *Fraser* was routed from the Caribbean where she had been performing patrol and escort duty with the America and West Indies Squadron.

From June 1940 until later that year the destroyers formed part of the anti-invasion fleet based in the English Channel. The Admiralty decided that "a striking force of four destroyer flotillas (at full strength thirty-six ships), with cruiser support, would be required."[53] These forces were stationed at Humber, Harwich, Scheerness and Portsmouth or Dover so as to be able to strike at the invasion fleet at its point of

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[51]W. D. G. Lund, "the Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43," p. 139.

[52]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 21.

[53]S. W. Roskill, The War at Sea, vol. I, The Defensive, p. 249.

arrival or while on passage. The expected German invasion (Code name "Sealion") never came about and as a result of mounting shipping losses in the Western Approaches the Canadian destroyers were transferred to the Clyde Escort Force.

Although British naval authorities still feared a German invasion, the Commander-in-Chief, Home Fleet, Admiral Forbes asserted that "the Navy should be freed to carry out its proper function offensively against the enemy and in the defence of our trade and not be tied down to provide passive defence to [sic] our country. . . ."[54] This paved the way for the transfer of escort vessels to the Clyde Escort Force.

He hoped that the transfer of these vessels (both British and Canadian) would permit the allocation of one more ship to the defence of each convoy. From May 1940 until October 1940, convoys were generally assigned only one escort. This situation accounted in large measure for what German U-boat commanders would later refer to as "the happy time." U-boat attacks were usually directed against ships sailing independently, or against inadequately defended convoys or on stragglers. The availability of targets for the U-boats is explained by the fact that close escort for the convoys could be provided only as far as 17° West, and this situation obtained until October.[55] On the other side of the Atlantic Canadian destroyers "attached to the Halifax Escort Force provided local escort to the H.X. convoys for the first three or four hundred miles"[56] of the trans-Atlantic passage. During the first "happy time," "114 unescorted and 73

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[54]Ibid., p. 257.

[55]Ibid., p. 343.

[56]Ibid.

escorted ships were sunk by U-boats, and by way of return only six U-boats were accounted for."[57] More ominous still, was the fact that the U-boats were now operating from bases in France, which meant that submarines could operate even further afield, far beyond the range of either the surface escorts or Coastal Command forces.[58] In addition, on August 17, 1940, Hitler declared a total blockade of the British Isles, thereby removing any previous restrictions vis-à-vis the sinking of merchant vessels.[59] Finally, in the summer of 1940 the German Luftwaffe (German Air Force) began using the French airbase at Mérignac near Bordeaux to deploy the Focke-Wulf 200 aircraft in anti-shipping strikes. From the French airbase the Focke-Wulf aircraft were able to support U-boat operations as far as 9° West (350 miles west of Bordeaux).

The Focke-Wulf aircraft originally saw service in civil aviation but was adapted for long-range reconnaissance for the Luftwaffe. The military version was named the Kondor. The Focke-Wulf Kondors were able to sink:

> A total of fifteen ships of 53,000 tons in their first full month of operations, to add to the total of 268,000 tons sunk by submarines. The aircraft were also able to help the submarines home in on targets . . . The Kondors stepped up their sinking rate to 66,000 tons (eighteen ships) [by] November.[60]

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[57]Ibid., p. 349.

[58]Coastal Command came under the control of the Royal Air Force. Its duties were to provide trade protection and coast defence, in cooperation with the Royal Navy. On April 15, 1941, operational control of Coastal Command was transferred from the Royal Air Force to the Royal Navy.

[59]S. W. Roskill, The War at Sea, vol. I, The Defensive, p. 349.

[60]Dan Van der Vat, The Atlantic Campaign: The Great Struggle at Sea, 1939-1945 (London: Hodder and Stoughton, 1988), p. 164.

These figures did not bode well for the Allied cause, particularly as there were no carriers available to provide the necessary protection for merchant shipping.

Meanwhile, in Canada, the government was attempting to secure replacements for the destroyers serving as part of the Royal Navy's anti-invasion fleet. "Mackenzie King was involved from the outset in the famous "destroyers for bases" deal, whereby the British traded base rights in the Western Hemisphere for fifty Great War vintage United States destroyers."[61] At the insistence of the Admiralty the Royal Canadian Navy acquired six of the fifty Town-class destroyers; these were commissioned as H.M.C. Ships--*Annapolis, Columbia, Niagara, St. Clair, St. Croix*, and *St. Francis.*[62] Although ill-suited for modern anti-submarine warfare, these ships were acquired reluctantly by the Royal Canadian Navy; this was in part out of deference to Britain and because they would augment the strength of the fleet on the Atlantic coast which had been denuded of the six River-class destroyers since May of 1940. However, shortly after receiving refits, four of the Town-class destroyers were transferred to the Clyde Escort Force.

Canada's acquisition of these new escorts had serious repercussions on the operational efficiency of the new corvettes which were coming off the ways in late 1940. As Milner notes:

> [the] provision of officers and men . . . was of course a primary concern as 1940 drew to a close. Much of the Royal Canadian Navy's disposable manpower went into commissioning the six Town-class destroyers and ten corvettes taken over from the Admiralty--sixteen warships for which the navy

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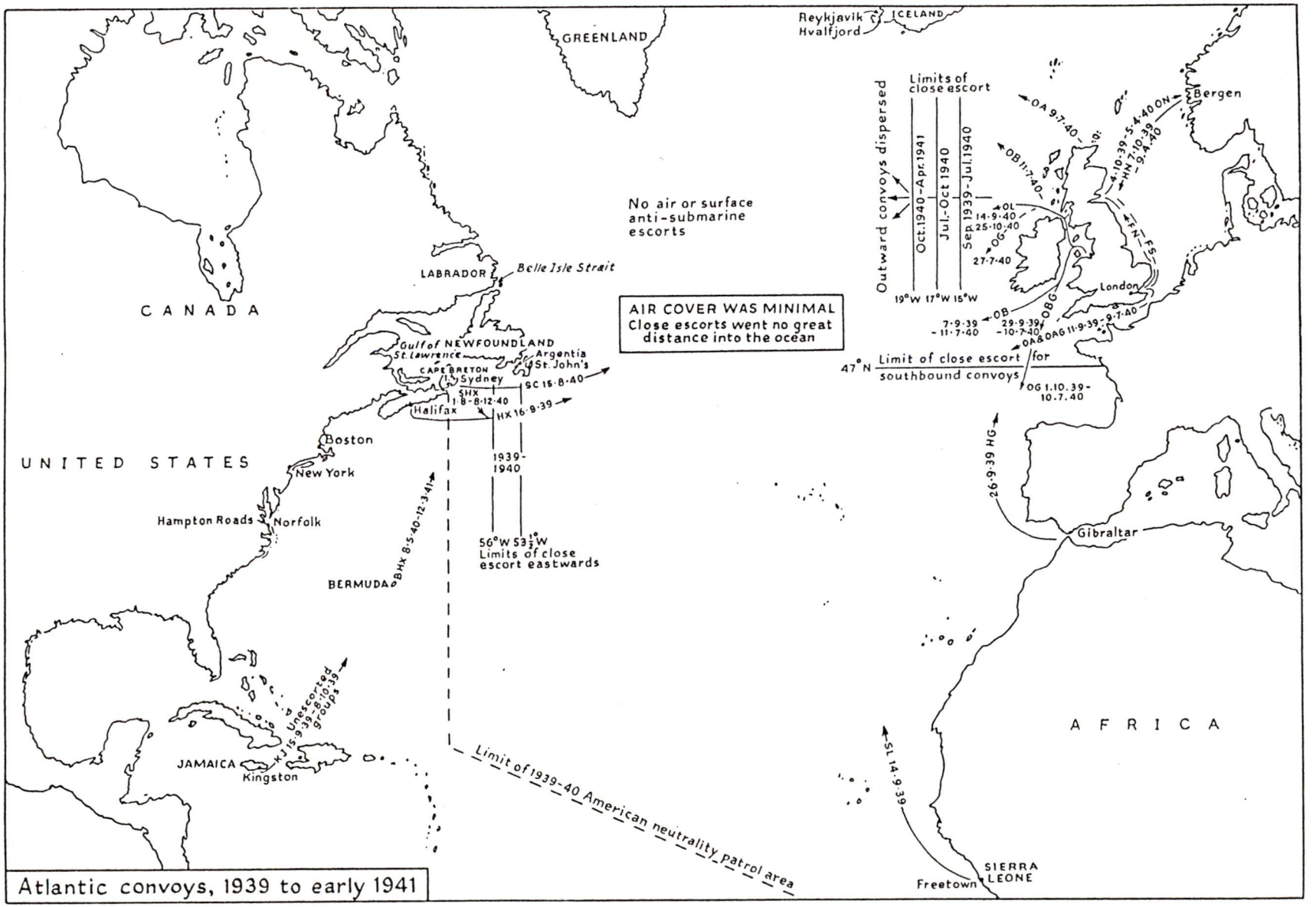
[61]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 22.

[62]Town-class destroyers followed the British tradition of naming them after town names shared by the United States and Great Britain--the Royal Canadian Navy adopted the names of border rivers which flowed between Canada and the United States.


GREENLAND
Reykjavik
Hvalfjord
ICELAND
Limits of close escort
Outward convoys dispersed
Oct.1940–Apr.1941
Jul.–Oct 1940
Sep.1939–Jul.1940
19°W 17°W 15°W
OA 9.7.40
OB 11.7.40
4.10.39–5.4.40 ON
HN 7.10.39 – 9.4.40
Bergen
OL 14.9.40
25.10.40
OG 27.7.40
FN–FS
London
OBG
OB 7.9.39 – 11.7.40
29.9.39 – 10.7.40
OA&OAG 11.9.39 – 9.7.40
No air or surface anti-submarine escorts
AIR COVER WAS MINIMAL
Close escorts went no great distance into the ocean
LABRADOR
Belle Isle Strait
CANADA
Gulf of NEWFOUNDLAND
St. Lawrence
Argentia
St. John's
CAPE BRETON
Sydney
SHX 1.8–8.12.40
SC 15.8.40
Halifax
HX 16.9.39
47°N Limit of close escort for southbound convoys
OG 1.10.39 – 10.7.40
Boston
UNITED STATES
New York
1939–1940
Hampton Roads
Norfolk
BHX 8.5.40–12.3.41
26.9.39 HG
Gibraltar
56°W 53½°W Limits of close escort eastwards
BERMUDA
Unescorted groups
XJ 15.9.39–8.10.39
AFRICA
JAMAICA
Kingston
Limit of 1939–40 American neutrality patrol area
SL 14.9.39
SIERRA LEONE
Freetown
Atlantic convoys, 1939 to early 1941

> had made no provision mere months before. Naturally this meant that the planning and assignment of personnel for the first wave of Royal Canadian Navy corvettes was set back. Further, with virtually the whole fleet on active duty on the other side of the Atlantic, the navy had no ongoing access either to experienced personnel or to berths on operational warships which could serve as training posts for new officers and key non-substantive ratings.[63]

Further compounding the problem of personnel was the fact that the Admiralty did not release the crews of the ten corvettes once they arrived in Britain. These men were to have gone on to other assignments once they had delivered the corvettes. For the time being, "the embattled Western Approaches took precedence over all else,"[64] including not only the ordered expansion of the Royal Canadian Navy but the efficiency of these Canadian ships as well. The "attendant manpower requirements for the sixteen ships were not large by Royal Navy standards (about 1,200 all ranks), but their acquisition represented a major expansion for the Royal Canadian Navy."[65] In addition it was necessary to find men to man the fifty-four corvettes, twenty-nine minesweepers, and a number of motor launches, which were due for completion by the spring of 1941--about seven thousand men all ranks.[66] This figure did not include the personnel required to man shore establishments. Thus Naval Staff's

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[63]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 26. Corvettes were naval vessels developed from a whale-catching design and were deemed by the Admiralty to be particularly well suited to anti-submarine warfare given their manoeuvrability and ease of construction.

[64]Ibid., p. 25.

[65]Ibid.

[66]Ibid., pp. 26-27. These vessels constituted the first building program for the Royal Canadian Navy and were ordered to meet the needs of inshore anti-submarine warfare.

plans for an ordered expansion were being overtaken by events, namely: the rapidly widening scope of the Battle of the Atlantic. The primary concern was to provide escorts with all possible speed despite their shortcomings. The problems of poorly and/or inadequately trained personnel, shortages of equipment (such as asdic) for the anti-submarine vessels, and improving the operational efficiency of the ships themselves would have to wait until later to be rectified. As a junior partner Canada was obliged to acquiesce to British demands for the moment.

CHAPTER TWO

THE WIDENING SCOPE OF THE WAR

> The distribution of the forces for the protection of our commerce is a most important and at the same time a most difficult problem to solve.
>
> --Captain Sir John Colomb, 1867

With the transfer of operational control of Canadian ships to the Admiralty, Britain was able to "treat them as part of her negotiable assets when she entered into 'American-British conversations-I' (ABC-I) with the United States."[1] The American-British conversations were held to plan a combined strategy for the defeat of Germany, should the former enter the war.[2] The agreement divided the world into two strategic zones. The United States would assume responsibility "for the strategic direction of its own and British forces [including the Royal Canadian Navy] in the greater part of the Pacific Ocean Area and in the Western Atlantic except for the waters and territories in which Canada assumes responsibility for the strategic direction of military forces, as may be defined in United States-Canada joint agreements."[3]

The famous "destroyers for bases" agreement the previous year allowed the

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[1]W. D. G. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43," p. 139.

[2]The American-British conversations-I (ABC-I) were held in Washington, D.C., in January 1941, between British chiefs of Staff and the United States joint chiefs of staff. The meetings produced a document entitled ABC-I, dated March 27, 1941.

[3]C. P. Stacey, Mens, Arms and Governments: The War Policies of Canada 1939-1945s, p. 160.

United States to defend the waters adjacent to its newly acquired bases in Newfoundland. This arrangement was concluded "despite strong protests from Canada and in spite of the prior Canadian claim to Newfoundland defence."[4] Indeed Newfoundland's strategic importance to Canada had been recognized since the beginning of the war and steps had been taken by the Royal Canadian Navy to ensure adequate protection for local convoys prior to either, the ABC-I or "destroyer for bases" agreements. After the fall of France, Canada committed herself to "basing up to ten or twelve corvettes at St. John's, and the establishing by the Royal Canadian Navy of local anti-submarine patrols at St. John's and Botwood, and at Red Bay on the Strait of Belle Isle. To fulfil these tasks the Naval Staff decided that ten additional corvettes and twelve Motor Launches (M.L.'s) should be built."[5]

Concurrent with American-British Conversations-I, negotiations were carried out between Canada and the United States regarding hemispheric defence, should Britain be defeated by Germany. The Permanent Joint Board on Defence was established to act as the coordinating agency for any joint military ventures between the two countries. The "Joint Canadian-United States Basic Defence Plan-1940," usually referred to as "Basic Plan No. 1" called for combined action on behalf of Canada and

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[4]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, pp. 32-33.

[5]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, pp. 60-61. Motor Launches were designed for anti-submarine duties. As such they were equipped with asdic. The motor launches were 112-foot wooden vessels with a standard displacement of 79 tons, driven by two 650 h.p. gasoline motors. They had an emergency speed of 20 knots, which they could maintain for approximately fifteen minutes. These motor launches (Type "B") Fairmile had a maximum continuous speed of 16.5 knots, and their economical endurance was approximately 1,500 miles. They were also equipped with radar and wireless sets and carried depth charges as their principal weapon of offence.

the United States to meet the threat of Germany and Japan. This document did not deal with the command relationship of the two countries military forces. In the spring of 1941 the Board drafted a "Joint Operational Plan No. 1" and it was intended to implement Basic Plan No. 1. The strategic direction and control of Canadian forces (both land and air) was vested in the Chief of Staff of the United States Army although prior consultation with the Canadian Chief of Staff was required. While Canada was prepared to surrender control of her forces to the United States in defence of the continent, she was not prepared to do so in the case of the second plan known as "Joint Canadian-United States Basic Defence Plan No. 2" (ABC-22). This second plan "was designed to meet a situation in which the United States and the Commonwealth would be partners in a war whose object was to defeat Germany, and not merely to prevent the Axis from conquering North America."[6] Although Canadian forces would continue to be commanded by Canadian officers (in the Maritime areas) until such time as the American forces outnumbered their counterparts, this arrangement was totally unsatisfactory as far as Canada was concerned. Mackenzie King's "reluctance to place the Royal Canadian Navy unreservedly under the control of the United States was made clear. This had not been done with respect to the United Kingdom at the beginning of the war and would not be done now."[7] The Canadian chiefs of staff "had their way and command by cooperation was established as the basis for the command relationship"[8]

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[6]C. P. Stacey, Arms, Men and Governments: The War Policies of Canada 1939-1945, p. 349.

[7]W. D. G. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43," p. 142.

[8]Ibid.

between the respective navies. However, once the United States entered the war the terms of ABC-I would come into effect.

Concurrently, negotiations were also under way between the Admiralty in London and Naval Service Headquarters in Ottawa for the establishment of the Newfoundland Escort Force. The Admiralty, in an attempt to counter the U-boat campaign, created four escort groups to provide continuous escort for the convoys. St. John's, Newfoundland, was chosen as the site for the escort base for several reasons. Firstly, the port was already partially defended, because of Canada's prior commitment to the defence of Newfoundland. Secondly, Newfoundland was ideally situated; it lay "a third of the way along the great circle route from continental North America to Great Britain."[9] The Newfoundland Escort Force came into existence on June 6, 1941, although the first corvettes began escort duties on June 2, 1941. Command of the force was given to then Commodore L. W. Murray, with the title of Commodore Commanding Newfoundland Force. It was common practice "throughout the joint American-Canadian occupation of Newfoundland to keep Canadian strength above that committed by the United States and to ensure that the senior Canadian present outranked his American counterpart."[10] In order to carry out the duties assigned to the Newfoundland Escort Force, the Admiralty returned the destroyers that had been working with the Clyde Escort Force and supplemented Newfoundland Escort Force with a squadron of Canadian-built corvettes. The strength of the force was initially 63 ships (30 destroyers,

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[9]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 189.

[10]Marc Milner, North Atlantic run: The Royal Canadian Navy and the Battle for the Convoys, p. 34.

9 sloops and 24 corvettes).[11] The trans-Atlantic convoys now came under the direction of four escort groups during the course of their passage. The first:

> Would be a Canadian group from St. John's which would escort a Halifax convoy [HX] to the Mid-Ocean Meeting Point in about longitude 35° West. There a British group from Iceland might meet the convoy and take over its escort, while the St. John's group returned with an outward-bound convoy. In about 18° West, at the Eastern Ocean Meeting Point, a Western Approaches group would take over from the Iceland group and bring the convoy to the west coast of Scotland where ships bound for the east coast would be detached to join, at Loch Ewe, with a coastal (W.N.) convoy to pass round the north of Scotland under different escort and so reach London. The ships bound for west coast ports would meanwhile proceed towards their destinations under Western Approaches escorts.[12]

Escort to the West Ocean Meeting Point for Halifax convoys was provided by the local Canadian escort operating from Halifax, under the control of the Canadian Officer Atlantic Coast. The ultimate responsibility for the direction of the campaign, however, still rested with the Royal Navy's Commander-in-Chief, Western Approaches.

Several measures were undertaken early in 1941 to counter the U-boat campaign. Acting upon a recommendation from Churchill, the Admiralty shifted Western Approaches Command Headquarters from Plymouth to Liverpool in February 1941.[13] There the Commander-in-Chief along with his staff would be in much closer contact with "the Atlantic shipping control organization, with the commodores of

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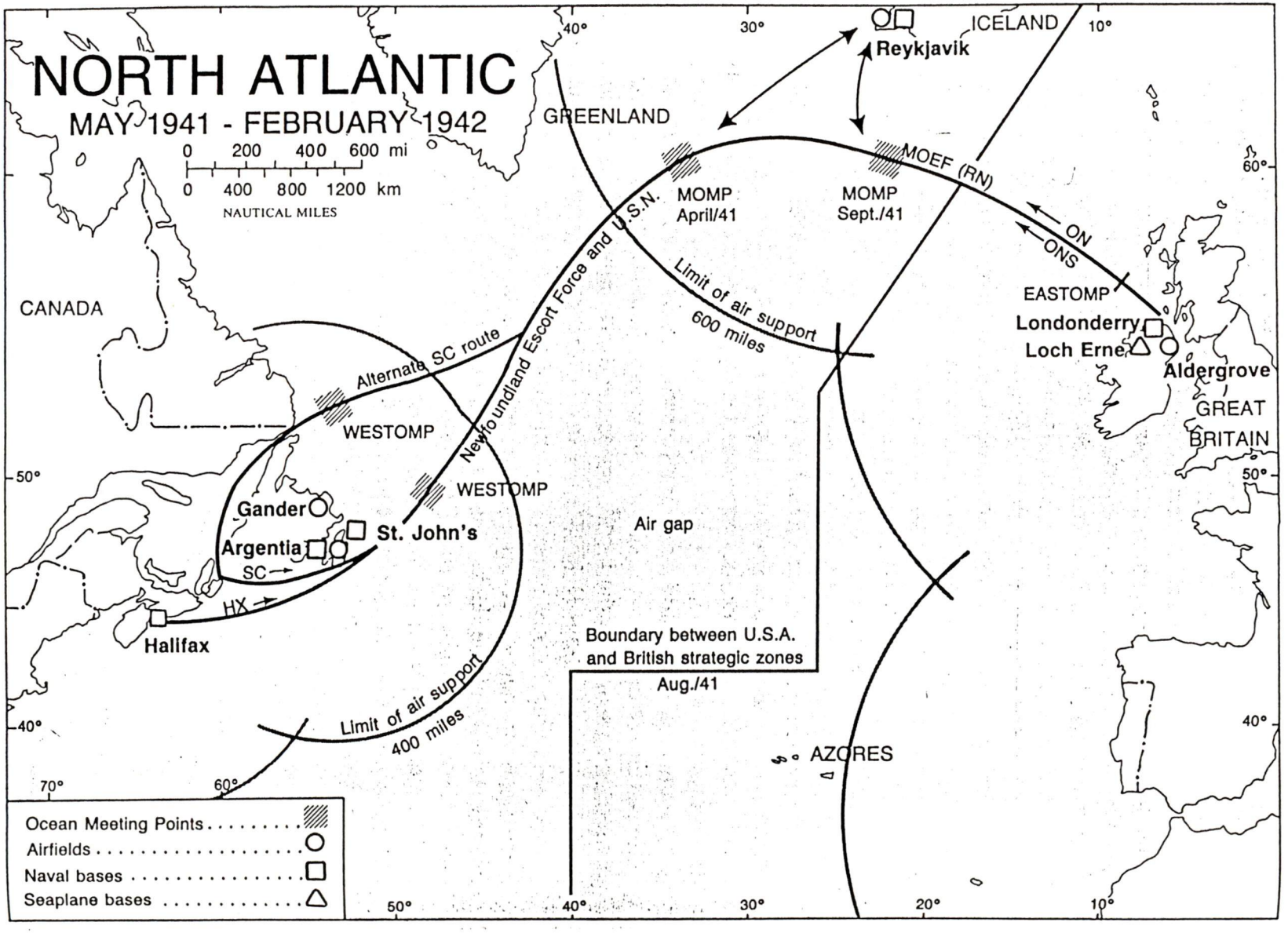
[11]Naval Staff History, Home Waters and the Atlantic: 9th April 1940-6th December 1941 (London: Her Majesty's Stationery Office, 1961), vol. II, p. 251.

[12]S. W. Roskill, The War at Sea 1939-1945, vol. I, The Defensive, p. 456. Complete end to end escort was made possible in May 1941 when and advanced fuelling base was made operational in Iceland. At the end of May 1941 Iceland was made an independent naval command under Rear-Admiral R. J. R. Scott, United States Navy.

[13]Ibid., p. 360.


NORTH ATLANTIC
MAY 1941 - FEBRUARY 1942
0 200 400 600 mi
0 400 800 1200 km
NAUTICAL MILES
ICELAND
Reykjavik
GREENLAND
MOMP April/41
MOMP Sept./41
MOEF (RN)
ON
ONS
EASTOMP
Londonderry
Loch Erne
Aldergrove
GREAT BRITAIN
CANADA
Alternate SC route
WESTOMP
WESTOMP
Newfoundland Escort Force and U.S.N.
Limit of air support 600 miles
Gander
St. John's
Argentia
SC
HX
Hallfax
Air gap
Boundary between U.S.A. and British strategic zones Aug./41
Limit of air support 400 miles
AZORES
Ocean Meeting Points
Airfields
Naval bases
Seaplane bases
70°
60°
50°
40°
30°
20°
10°

convoys and masters of individual merchantmen, with the commanders of the escort groups and perhaps most important of all, with No. 15 Group of Coastal Command (Air Vice-Marshal J. M. Robb)."[14] No. 15 Group of Coastal Command was transferred from Plymouth as well, to provide air operations in the north-west approaches in support of the Royal Navy. In Derby House (Command Headquarters) an Operations Room, Trade Post, and Submarine Tracking Room were set up and linked by telephone to the Admiralty's Operational Intelligence Centre. On February 15, 1941, Admiral Sir Percy Noble replaced Admiral Dunbar-Nasmith as Commander-in-Chief, Western Approaches and was given full responsibility "for the protection of trade, the routing and control of the outward and homeward-bound convoys, and the measures to combat any attacks on convoys by U-boats or hostile aircraft within his command."[15] To facilitate liaison between Coastal Command and the Royal Navy, operational control was transferred from the Royal Air Force to the Royal Navy on April 15, 1941. This had the effect of emphasizing the importance of maritime operations vis-à-vis the Battle of the Atlantic. Consequently, a Combined Headquarters was established at Derby House to integrate the naval and air commands involved in that campaign.

During the same month, Coastal Command flew one million miles in support of convoys and 200,000 miles on anti-submarine patrols. However, the number of actual kills of U-boats was incommensurate with the effort. Indeed, "from the outbreak of the war until September 1941 forty-nine German and thirty-five Italian U-boats were destroyed, but Coastal Command had only contributed [to?] the destruction of one and

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[14]Ibid.

[15]Ibid., p. 361.

the surrender of a second, while three had been destroyed in joint operations with surface craft."[16] What these figures do not show, however, was the number of U-boats which were forced to submerge as a result of Coastal Command's operations, thus ensuring the safe passage of convoys bound for the United Kingdom. Clearly, the British Admiralty had failed to grasp the significant role aircraft would play in anti-submarine operations. The Admiralty felt that,

> if a submarine suspects the presence of air patrols she will employ anti-air tactics as far as possible. Submarines operating with surface or air reconnaissance are more likely than not to remain on the surface to ensure reception of wireless-telegraph reports and make use of their surface speed . . .[17]

Admiral Doenitz on the other hand was under no such illusion regarding the danger to submarines from aircraft:

> Aircraft are dangerous foes of the submarine. The enemy has employed them extensively for anti-submarine work . . . Aircraft are sent out to attack and keep the U-boat under water. Then destroyers and hunting craft come out . . . It is, therefore, right, when the presence of a submarine has been betrayed, to change the area of operations . . .[18]

In an attempt to find further targets, Admiral Doenitz stationed his U-boats beyond the range of Coastal Command aircraft in an area variously known as the "Greenland Air Gap," the "Air Gap," or (by the Germans) the "Black Pit." Air escort

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[16]Ibid., p. 461.

[17]Naval Staff History, The Development of British Naval Aviation 1919-1945 (London: Her Majesty's Stationery Office, 1954), vol. I, p. 90.

[18]Ibid.

for convoys was then "practicable to a maximum distance of some 700 miles from the British Isles, 600 miles from the coast of Canada and some 400 miles to the south of Iceland. But a gap of approximately 300 miles remained where no air escort could yet be provided."[19] In conjunction with Coastal Command's efforts the Naval Control Service instituted evasive routing of convoys based on information supplied by the Operational Intelligence Centre, Ultra decrypts, and the Admiralty Submarine Tracking Room.[20] In addition, ships which sailed independently "were routed far to the north out of range of the Focke-Wulf bombers and U-boats operating from bases in France, and convoys were brought in towards the coast along a fairly narrow lane patrolled or covered by Coastal Command aircraft."[21] While patrolling of the sea lanes in anti-submarine operations or providing close escort for convoys threatened by U-boats proved to be effective in discouraging attacks from submarines, problems persisted. According to Operational Research Sections study:

> . . . "meets" between convoys and their escorting aircraft showed that some 75 per cent of aircraft met their convoys. The "not met" rate, understandably, went up the further the convoys were from shore: from 8.5 per cent "not met" 100 miles from shore, to 40 per cent "not met" over 600 miles from shore.[22]

The "not met" rate is explained by a myriad of factors not the least of which

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[19]S. W. Roskill, The War at Sea 1939-1945, vol. I, The Defensive, p. 459.

[20]Ultra was the code name given to intelligence information emanating from Bletchley Park, after June 1941, when crypto analysts broke the "Triton" code for operational U-boats in the Atlantic. The prefix Ultra given on a one-time pad cypher and under strict security regulations signified the reliability of the intelligence.

[21]S. W. Roskill, The War at Sea 1939-1945, vol. I, The Defensive, p. 362.

[22]John Winton, Convoy: The Defence of Sea Trade 1890-1990, p. 223.

include: distance, weather conditions, poor navigation, and faulty equipment. Operational Research Sections analysis pointed out the problems and the best means to counter the U-boats, namely, very long range aircraft and merchant aircraft carriers, but the argument fell on deaf ears. It was felt that very long range aircraft would be better employed in strategic bombing offensives against submarine bases in France, and aircraft carriers should be used in fleet operations rather than anti-submarine warfare operations.

Other measures to deal with the mounting shipping losses included additional changes to the convoy system. In April 1941 Western Approaches issued its "Convoy Instructions" (WACIs) which set out the future policy for all convoy escorts. For the first time since the Battle of the Atlantic was joined, the emphasis was placed on the defence of the convoy. The "first and primary task of the escort was to be the safe and timely arrival of the convoy. All else, including pursuit of the enemy, was secondary to this aim."[23] In June 1941 the Admiralty reversed an earlier decision which had seen the "upper speed limit for inclusion in Atlantic convoys reduced from fifteen to thirteen knots in an endeavour to speed up the turn-round of shipping and to avoid delaying the faster ships."[24] The Admiralty's Trade Division had shown that independently-sailed ships in the thirteen-knot to fifteen-knot range had suffered heavy losses as opposed to ships sailing in convoy. Consequently, the Admiralty returned to the fifteen knot upper speed limit for ships sailing in Atlantic convoys.

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[23]Marc Milner, North Atlantic Run: the Royal Canadian Navy and the Battle for the Convoys, p. 60.

[24]S. W. Roskill, The War at Sea 1939-1945, vol. I, The Defensive, p. 457.

One of the interim measures introduced by the Admiralty to counter the U-boat campaign and to close the "air gap" was the introduction of Catapult Aircraft Merchant ships (commonly referred to as the CAM ships). It was decided "to fit out 35 merchant ships as CAM ships with rocket type catapults capable of launching a Hurricane I aircraft."[25] The first CAM ship, the *Michael E*, sailed with convoy OB 327 on May 27, 1941. The CAM ships would continue to carry their usual cargo and sail in convoy as merchantmen under the Red Ensign. The Air Ministry accepted responsibility not only for the aircraft, but for the aircrew and maintenance crews as well. The Admiralty provided a Fighter Direction Officer and Radio Direction Finding ratings for each ship fitted with either Type 286P or Type 79RDF.[26] The main drawback to this type of vessel was the fact that once the aircraft was launched it could not land back on. The pilot had three choices. He could either return to base if it was within reach, parachute into the sea, or ditch his aircraft. The advent of the CAM ship "was at best an extempore measure taken to meet as expeditiously as possible the threat of increased shipping losses through air attack."[27] During the course of 1941 CAM ships made a total of 68 round voyages in which one operational launch was made against a Focke-Wulf 200, thwarting an imminent bombing attack on the convoy. Notwithstanding the limitations of CAM ships they provided some measure of deterrence against the Focke-Wulf aircraft and a boost to sailor's morale.

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[25]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, p. 73. At its inception the original plan called for 400 merchant ships to be fitted out as CAM ships. This was subsequently reduced to 250, then 50 and finally 35.

[26]Ibid. RDF refers to Radio Direction Finding later called radar.

[27]Ibid., p. 89.

The fighter catapult ship was another interim measure taken by the Admiralty to deal with the long-range Focke-Wulf aircraft operating against convoys. The first to enter service in late 1940 was the old seaplane carrier H.M.S. *Pegasus.* The fighter catapult ships differed from the CAM ships in two important respects. Firstly, the fighter catapult ships were warships, and as such flew the White Ensign of the Royal Navy. Secondly, fighter catapult ships could carry up to three fighters as opposed to the single fighter carried on the foc'sle of CAM ships. A total of five fighter catapult ships saw duty during the war. The last fighter catapult ship H.M.S. *Maplin* returned to trade duties on June 30, 1942.

In summary, the fighter catapult ships launched a total of ten aircraft and were credited with shooting down one Focke-Wulf and damaging two others.[28] While the fighter catapult ships did achieve some measure of success they were never more than a "stop-gap" measure, as they suffered from the same limitations as the CAM ships. Clearly what was needed was continuous air support for the convoys.

By mid-1941 various weapon systems which had gained impetus from Churchill's Battle of the Atlantic Directive began to make their appearance. Thus, for example, Coastal Command received a new naval depth charge in May 1941. The Mark VIII, a 250-pound depth charge replaced the 100-pound and 250-pound anti-submarine bombs. The Mark VIII depth charge was filled with Amatol or T.N.T. explosive and was smaller. It was "capable of being loaded into all types of operational

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[28]For a short summary of fighter catapult ship operations, see Appendix VI in the Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, pp. 288-90.

Coastal Command and naval aircraft."[29] However, the real advantage gained by the introduction of the Mark VIII was that it could be dropped from a greater height, up to 2,000 feet and at 200 knots maximum speed. Previous anti-submarine bombs had to be dropped from 50 to 100 feet at a speed of 70 to 80 knots.[30] The restrictions imposed often allowed the submarine to crash dive before naval aircraft could drop their charges. The new Mark VIII would present Coastal Command and naval aircraft with more opportunities to depth charge U-boats.

Other anti-submarine measures designed to counter the submarine threat developed apace. In order to improve counterattacks by surface escorts, trials were carried out with High Frequency/Direction Finding equipment. Locating the enemy consisted of "obtaining a 'fix' on his wireless transmissions from two or more listening posts; his approximate position being the point at which the bearings crossed on the chart."[31] The Admiralty's High Frequency/Direction Finding organization consisted of shore-based stations in Britain, Canada and Iceland. By plotting bearings, a rough position of the gathering submarine wolf pack could be determined. This information was then sent to the Admiralty's Operational Intelligence Centre where the Naval Control Service Officer would issue rerouting instructions so as to ensure that threatened convoys could avoid the danger area. The problem with shore-based High Frequency/Direction Finding equipment was the fact that "the greater the distance, the

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[29]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, p. 63.

[30]Ibid.

[31]Dan van der Vat, The Atlantic Campaign: The Great Struggle at Sea 1939-1945, p. 176.

less precise the bearing. The British response to this was to put High Frequency/Direction Finding equipment on convoy escorts. This meant that direction finding could be exploited not only to divert the convoys, but also by escorts to locate submarines before they could attack."[32] This equipment represented an important technological development to anti-submarine warfare where none had existed previously.

Another innovation was the introduction of "Snowflake" rockets in both surface escorts and merchant ships in May 1941. This new flare literally turned night into day, and was extremely useful against U-boats attacking convoys on the surface, under the cover of darkness. Prior to this invention the only illuminant available was Star Shell. This was a gun-fired projectile which contained a flare ignited by a timed fuse. Star Shell was ineffective for two reasons. The flare burned neither long enough nor bright enough.

Of equal importance was the development of short range high frequency radio telephones "which permitted an escort group commander to communicate with the ships under his command and enabled an Allied escort group to work as a team."[33]

This piece of equipment would become even more important with the development of radar. The beginning of 1941 saw the outfitting of the first radar sets on Allied escort vessels. The first set was quite primitive:

> It operated on a 1.5 meter wave length and omitted a steady electronic beam. The aerial resembled a mattress spring and could not be rotated. A returning echo would be displayed on a cathode ray oscilloscope, called an "A" scan, as a peak. Ranges were short, less than 4,000 yards, but could be measured with

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[32]Ibid.

[33]David Syrett and W. A. B. Douglas, "The North Atlantic Triangle in Disarray: Closing the Greenland Air Gap, 1942-43" (n.p.: Marine-Rundschau, 1985), p. 32.

fair accuracy. Direction could only be roughly estimated.[34]

Notwithstanding these limitations, radar came to fill the gap left by the inability of asdic to detect a surfaced submarine. Moreover, radar proved to be particularly useful against U-boats employing pack tactics. The development of both radar and radio telephones would now permit a coordinated team effort by the surface escorts to drive off the U-boats. However, it still "remained necessary for the escort vessel or aircraft to close to a range at which its guns, bombs or depth charges could be used to good effect."[35]

Trials had also begun in 1941 with "Hedgehog," an "ahead-firing mortar in surface escorts, enabling escort commanders to throw a pattern of depth bombs while following up an asdic contact through the 'dead space,' Hedgehog proved successful and was introduced as standard equipment by the beginning of 1942."[36] Until that time, temporary measures such as increasing the number of a surface escort's depth charge from five to ten was introduced.[37] Finally, the introduction of fuelling at sea for escorts "allowed them not only to complete the Atlantic crossing without having to turn over convoys to their 'opposite numbers' from the other side, but enabled high speed to be

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[34]Wilfred Gourlay Lund, The Strategy of the Commonwealth Anti-Submarine Forces Against the U-Boats in the Battle of the Atlantic: September 1939 to May 1943, p. 51.

[35]S. W. Roskill, The War at Sea 1939-1945, vol. I, The Defensive, p. 358.

[36]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, pp. 92-93.

[37]Wilfred Gourlay Lund, The Strategy of the Commonwealth Anti-Submarine Forces Against the U-Boats in the Battle of the Atlantic: September 1939 to May 1943, p. 51.

used in longer hunting of a U-boat after an initial contact."[38]

Concomitant with the development of radar for the surface escorts was the creation of air-to-surface radar. The air-to-surface radar (Mark II) was being fitted to Coastal Command and naval aircraft by June 1941. This development allowed aircraft to locate U-boats on the surface at night or in bad weather. Nevertheless, the Mark II was not without its problems. Although an "aircraft could now locate a U-boat at night on the surface, it could not successfully attack the submarine because the air-to-surface radar lost the target once the range was narrowed down to a mile or less."[39] To overcome this problem Squadron Leader H. de V. Leigh, Royal Air Force (then employed in Coastal Command), suggested using a standard naval Mark IV arc lamp to illuminate the U-boat during the final stages of approach when the air-to-surface radar had lost contact with the U-boat. This invention which came to be called the Leigh Light was mounted like a gun:

> . . . in a turret and would track the U-boat from bearings supplied by air-to-surface radar. At 250 feet above the water the aircraft, still heading for the submarine, would pull out of the dive. When the air-to-surface radar lost the U-boat because of "sea clutter," the Leigh Light would go on automatically, the U-boat would be illuminated with a blinding 22-million candlepower, and several seconds later the aircraft would attack the U-boat with depth charges and gunfire from a height of about 50 feet.[40]

However, it took a total of twenty-four months between Leigh's proposal and

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[38]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, p. 93.

[39]David Syrett and W. A. B. Douglas, "The North Atlantic Triangle in Disarray: Closing the Greenland Air Gap, 1942-43," p. 33.

[40]Ibid., p. 34.

the lights adoption as a standard night attack weapon at the end of 1942. Unfortunately, weight considerations prevented the Leigh Light's being fitted to naval aircraft.

Finally, radio/telephony communication "between surface escorts and aircraft was becoming more reliable and some ships were now fitted with both High Frequency/Direction Finding and Radio Direction Finding (radar)."[41] The combination of these aforementioned developments allowed the Allies to take the offensive against the U-boats after some twenty months on the defensive. With the institution of "end-to-end" convoys, improvements in anti-submarine weaponry and the penetration of naval codes (since May 1941) merchant shipping losses dropped during the summer months of 1941. Sinkings "by U-boats actually fell to twenty-two ships of 94,209 tons in July and twenty-three ships of 80,310 tons in August."[42] As a result of the reduction in shipping losses there were those who argued that the tide had been turned in the Battle of the Atlantic. One proposal called for the reallocation of Coastal Command forces (long-range bombers) from convoy duties to the bombing offensive against German submarine bases in the Bay of Biscay. The proposal was successfully resisted by the Admiralty, only to be brought up again in the autumn of 1941 by Churchill. In responding to the second proposal one astute member of the Board of the Admiralty stated:

> We require every single surface ship and every long-range aircraft we can possibly muster. Any suggestion that the corner has been turned is not

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[41]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, p. 61.

[42]S. W. Roskill, The War at Sea 1939-1945, vol. I, The Defensive, p. 466.

supported by the facts.[43]

What the figures did not show was that Germany's U-boat construction programme was gaining momentum. The number of operational U-boats increased steadily,

> from sixty-five in July to eighty in October and the rate of commissioning new boats was also rising. By September 1, 1941 the Admiralty assessed the enemy's total strength at 184 U-boats, and his losses up to that date at forty-four. The actual figures, we now know, were 198 and forty-seven respectively. By the end of the year it was estimated that this total would reach 229--which was, in fact, slightly below his actual accomplishment.[44]

Given the number of operational U-boats and the number due to be completed by the end of the year it was clear that a renewed assault on the convoys could be expected in the spring of 1942. "In a pursuit as complex as is the waging of war; it might be set down as an axiom that no one factor, and certainly no one weapon can be exclusively decisive."[45] In spite of the myriad of weapons introduced and the corresponding technological advances in that weaponry they were incapable of defeating the submarines. What was needed was continuous air support provided by aircraft carriers working in conjunction with the escort groups to defeat the U-boats. The advent of the Royal Canadian Naval Air Service parallels the fortunes of the Royal Canadian Navy in trade protection and anti-submarine warfare operations. It is

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[43]Ibid., p. 467.

[44]Ibid. See Appendix II for the number of U-boats commissioning, p. 614.

[45]Bernard Brodie, A Guide to Naval Strategy (New York: Frederick A. Praeger Publishers, 1965), p. 192.

necessary therefore to provide a history of Canadian convoy battles to place the birth of Canadian naval aviation in its proper context.

Changes were also taking place in the Canadian context. The newly created Newfoundland Escort Force "which was intended to be simply an interim measure, designed to fill the Western Atlantic gap until the United States assumed such responsibilities,"[46] was about to come under American strategic and operational control. The Americans had been moving towards involvement in the Battle of the Atlantic since the spring of 1941. The United States signed the Lend-Lease Bill in March of that year. Under the terms of this agreement the United States provided war materials to Britain "on a lend and lease basis, which allowed American war supplies to reach Britain in exchange for a theoretical deferred payment."[47] This economic arrangement would have disastrous consequences for Hitler's strategy of economic warfare against Britain. Now the full weight of America's industrial capacity was thrown into the fray.

During the following month President Roosevelt instructed Admiral Ernest King, Commander-in-Chief, Atlantic Fleet, to extend the American "Security Zone" from 60° West to 27° West. The Atlantic Fleet Support Group which was created to patrol this area represented a large commitment on the part of the United States Navy. It consisted of three destroyer flotillas, five squadrons of flying boats, battleships, cruisers, and in the case of war with Germany, fleet class aircraft carriers, all under the command

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[46]Marc Milner, "Royal Canadian Navy Participation in the Battle of the Atlantic Crisis of 1943" in The RCN in Retrospect, 1910-1968, ed. James A. Boutilier (Vancouver: University of British Columbia Press, 1985), p. 166.

[47]W. A. B. Douglas and Brereton Greenhous, Out of the Shadows: Canada in the Second World War, p. 45.

of Rear-Admiral A. LeR. Bristol, Jr.[48] On July 7, 1941, American forces relieved the Commonwealth garrison forces stationed on Iceland. Convoys protected by United States Navy escorts were commenced on July 27 to carry supplies to the island. Under the terms of the United States Western Hemisphere Defence Plan No. 4 (WPL-51) the convoying of ships (including others than those of the United States) was permitted while still maintaining a non-belligerent status.

The United States' role in the Battle of the Atlantic was further enhanced following the Argentia Conference, held from August 10-August 15, 1941. This conference finalized the responsibilities of the United States Navy and the Royal Navy in defence of trade. Under the new arrangements (which included ABC-I and WPL-51) the Americans assumed responsibility for all HX convoys (fast) between the Western Ocean Meeting Point off Cape Race (the limit of local Royal Canadian Navy escorts) and the Mid-Ocean Meeting Point, south of Iceland.[49] The United States Navy also assumed control of ON (fast) westbound convoys. The Royal Navy escorted all convoys between the Mid-Ocean Meeting Point and ports on the west coast of the United Kingdom. On September 16, 1941, the United States Navy "began to escort its first trans-Atlantic convoy HX 150."[50] Three days earlier, as per American-British Conversations-I, strategic control of Canadian ships passed from the Commander-in-

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[48]Dan van der Vat, The Atlantic Campaign: The Great Struggle at the Sea 1939-1945, p. 182; Marc Milner, North Atlantic Run: the Royal Canadian Navy and the Battle for the Convoys, p. 59. This commitment came under the terms of ABC-I and WPL-51.

[49]Wilfred Gourlay Lund, the Strategy of the Commonwealth Anti-Submarine Forces Against the U-Boats in the Battle of the Atlantic: September 1939 to May 1943, p. 56.

[50]W. D. G. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43," p. 143.

Chief, Western Approaches (Royal Navy) to the Commander-in-Chief, Atlantic Fleet (United States Navy). Once again Canada was relegated to the position of a junior partner.

Under the terms of American-British conversations-22, the Royal Canadian Navy was to assume responsibility for SC (slow) convoys between the Western Ocean Meeting Points and the Mid-Ocean Meeting Points. To meet this commitment a total of five destroyers and fifteen corvettes were allocated to escort duty.[51] The Commodore Commanding Newfoundland Force's (Admiral L. W. Murray) was "to be responsible for control of SC convoys under Commander-in-Chief, Atlantic Fleet's "broad supervision."[52] What must have rankled in the minds of most Canadian naval authorities was the fact that these arrangements were concluded without prior consultation with Canada. Despite this setback, relations between Admiral Murray and his American counterpart, Commander Support Force, Rear-Admiral Bristol, remained cordial.[53]

The Royal Canadian Navy's commitment turned out to be more than originally intended under the terms of WPL-51. Canada increased her forces from five destroyers and fifteen corvettes to eight destroyers and twenty-five corvettes. The United States Navy's commitment to the North West Atlantic turned out to be short-lived. On

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[51]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 59.

[52]W. D. G. Lund, "The Royal Canadian navy's Quest for Autonomy in the North West Atlantic: 1941-43," p. 143.

[53]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 59.

December 7, 1941, Japanese forces bombed Pearl Harbor, thereby catapulting the United States into the war. All the "American destroyers were withdrawn immediately for service in other theatres, and by February 1942, there were only two United States Coast Guard cutters available for duty as convoy escorts."[54] The withdrawal of American forces from the North West Atlantic necessitated, once again, closer ties with the Royal Navy.

The withdrawal of the United States Navy also prompted the Admiralty to raise the question of strategic control of trans-Atlantic escorts. The terms of American-British Conversations-I, which were now in force, stated that the Commander-in-Chief, Atlantic Fleet, would maintain strategic control west of 26° West and the Commander-in-Chief, Western Approaches, would exercise control east of that meridian. The meridian was known as the CHOP line. The Admiralty felt that the Commander-in-Chief, Western Approaches, should resume control of all trans-Atlantic escorts, given the fact that 98 per cent of the ships were Commonwealth vessels. Moreover, the Admiralty was concerned that dual control would be unworkable (due to confusion in command responsibility), particularly if the U-boats began to operate anywhere near the "CHOP" line (Change of Operational Command). Admiral E. King (now Commander-in-Chief, United States Fleet), made it clear that he intended to follow the terms of the agreement, and further, that strategic control would continue to reside with Rear-Admiral Bristol, Commander Task Force 24. Canadian naval authorities were prepared, at least initially, to accept this situation. Naval Service Headquarters stated that

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[54]W. D. G. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1942-43," p. 144.

"Commanding Officer Atlantic Coast and the Flag Officer Newfoundland Force (the new designation for the Commodore Commanding Newfoundland Force) would continue to provide the maximum number of ships possible."[55] In less than six months, however, the Royal Canadian Navy would begin to assert its claim for strategic responsibility commensurate with her effort in the Battle of the Atlantic.

As a result of the United States' declaration of war on Germany, Doenitz decided to send U-boats to operate off the American coastline on December 12, 1941. The operation was to be code-named "Paukenschlag" (Drum-beat).[56] A total of:

> Five Type VIIC 500-ton U-boats were committed to the area between Sydney, Nova Scotia, and Cape Hatteras. A further twelve, consisting of one type IXB minelayer, one type IXC and ten VIIC [were assigned] as the second wave in the attack area St. John's, Halifax, or with the Type IX Boats as far as Cape Hatteras.[57]

Doenitz, who was convinced of the strengths of the convoy system, hoped to sink the merchant ships before the convoys were ever formed.[58] In a period of three months, from January to March 1942, the U-boats were able to sink a total of forty-four ships. The success of the U-boats can be explained by the simple fact that the United States was not prepared for the onslaught. The submarines found a coastline still at peace. Lighthouses still flashed,

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[55]Ibid., pp. 144-45.

[56]John Winton, Convoy: The Defence of Sea Trade 1890-1990, p. 228.

[57]Michael L. Hadley, U-Boats Against Canada: German Submarines in Canadian Waters, pp. 54-55.

[58]Ibid., p. 52.

> buoys still winked, harbour lights shone into the night, as did bright lights and neon signs from buildings and hotels on sea fronts. Offshore, ships still steamed along independently, lights blazing, radios squawking, keeping a casual, peace-time lookout.[59]

That the Germans could enjoy a "second happy time" was unthinkable to the British. The Americans were privy to any and all information regarding convoys. Moreover, they had had some convoy experience in the North Atlantic since mid-1941. Yet, despite their knowledge and experience the Americans felt that "inadequately escorted convoys were worse than none."[60] Instead they tried everything else (including the patrolling of sea lanes) except convoy and escort. Fortunately, for the allies, Doenitz was not able to transfer more U-boats from the Mediterranean and Northern Waters to take part in Operation Paukenschlag.[61]

In February 1942 a new system of convoy and escort arrangements came into being. The reorganization established three escort forces: the Western Local Escort Force (Halifax), the Mid-Ocean Escort force (St. John's), and the Eastern Local Escort Force (Londonderry). Two new rendezvous and/or changeover points were established: the Western Ocean Meeting Point at 45° West, and the Eastern Ocean Meeting Point at 7° West. This meant that an HX or SC convoy would be escorted to the Western Ocean Meeting Point by Halifax escorts and be turned over to St. John's escorts for the

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[59]John Winton, Convoy: The Defence of Sea Trade 1890-1990, p. 228.

[60]Ibid., p. 230.

[61]Hitler feared an invasion of Norway and insisted on deploying the U-boats defensively off the Norwegian coast. The German Naval Staff argued for defensive deployment in the Mediterranean and off Gibraltar. Consequently, three U-boats were stationed in the Arctic, six in the Mediterranean, and sixteen in the North Atlantic. And of these sixteen, no less than seven were on Norwegian operations. Michael L. Hadley, U-Boats Against Canada: German Submarines in Canadian Waters, pp. 53-54.

passage directly to the Western Approaches. Escorts based at Londonderry would meet the homeward bound convoy at 7° West and shepherd the ships to Londonderry, the eastern terminus. A total of fourteen escort groups came into force,

> seven British, three American and four Canadian. The British and Canadian groups aimed at a strength of three destroyers and seven corvettes, thus giving convoys an average protection of two destroyers and five corvettes. The new system was introduced with HX 176 and ON 68 late in February.[62]

This change in the convoy system coupled with the withdrawal of American forces meant that the Royal Canadian Navy would be pushed to the limits of its operational capacity. Furthermore, any chance to rectify the problems experienced by the fleet, both in terms of equipment and training were once again lost as a result of events beyond the control of Naval Service Headquarters. In March 1942 Admiral E. King "instructed the Royal Canadian Navy to establish a convoy system between Boston and Halifax"[63] which became the responsibility of the Western Local Escort Force. It was achieved, but at the expense of Mid-Ocean Escort Force. As the U-boats continued to probe for weak spots off the American coast, further escorts were transferred from Mid-Ocean Escort Force. In May of 1942 the Royal Canadian Navy "was forced to consider the establishment of its own Halifax-to-West Indies convoys"[64]

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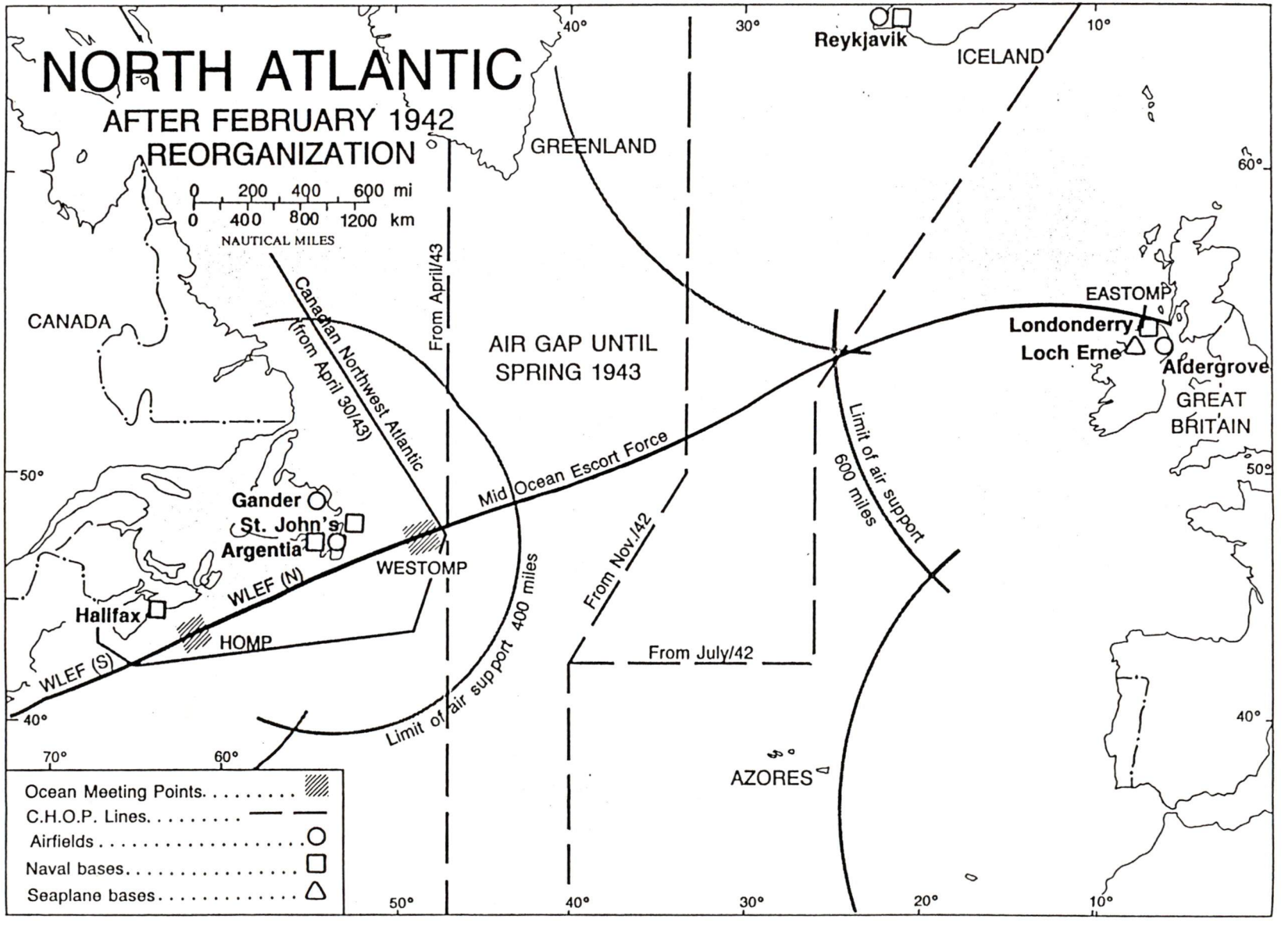
[62]John Winton, Convoy: The Defence of Sea Trade 1890-1990, p. 235.

[63]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 99.

[64]Ibid., p. 106. The movement of this traffic was the responsibility of the United States Navy. However, their inability to defend the tankers (owing to shortages of escorts) forced the Royal Navy and Royal Canadian Navy to assume responsibility for their safe and timely arrival. The British estimated that 280 ships--nearly half of them tankers--totalling 1,650,752 gross tons were lost to enemy action between January and May 1942 most of them in the Western Atlantic.


NORTH ATLANTIC
AFTER FEBRUARY 1942
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From April/43
Canadian Northwest Atlantic
from April 30/43)
Gander
St. John's
Argentia
Halifax
WESTOMP
HOMP
WLEF (N)
WLEF (S)
Mid Ocean Escort Force
From Nov./42
From July/42
Limit of air support 400 miles
Limit of air support
600 miles
EASTOMP
Londonderry
Loch Erne
Aldergrove
GREAT
BRITAIN
AZORES
Ocean Meeting Points
C.H.O.P. Lines
Airfields
Naval bases
Seaplane bases

(due to mounting oil tanker losses in the Caribbean and dwindling supplies of oil in Canada) to ensure adequate supplies. In order to provide the necessary escorts the normal practice of sending newly-commissioned ships to the Royal Navy's escort work-up base H.M.S. *Western Isles*, at Tobermory, Scotland, was curtailed.[65] This decision was destined to have a detrimental effect on the efficiency of Canadian escorts engaged in anti-submarine warfare.

Canadian escorts continued to suffer throughout 1942 from the same problems as in the previous year. The Royal Canadian Navy "had by 1942 grown to approximately 188 warships and 16,000 men."[66] This rapid expansion coupled with the manning policy pursued by Naval Service Headquarters, and the quick turn around of Canadian ships in harbour (to maintain the convoy cycles), meant that Canadian personnel were not as well trained as their counterparts in the Royal Navy were in the fine art of anti-submarine warfare.[67] This problem of efficiency, or lack thereof, was further compounded by the equipment shortages experienced by the Canadian fleet.

The Royal Canadian Navy lagged far behind the Royal Navy in equipping its ships with the latest in anti-submarine warfare equipment. Not one Canadian escort, for example,

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[65]Ibid.

[66]W. A. B. Douglas and Brereton Greenhous, Out of the Shadows: Canada in the Second World War, pp. 73-75.

[67]Naval Service Headquarters' manning policy was more concerned with building a large cadre of experienced personnel than with the operational efficiency of the escorts. In addition heavy drafting from escorts committed to operations continued and no firm policy existed regarding the length of time to be devoted to working-up a ship prior to an operation. For a detailed account of the manning policy, see Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, pp. 55-56, 84-87, 93.

> had been fitted with the anti-submarine mortar "Hedgehog," by the autumn of 1942, and of the Canadian ships in the Mid-Ocean Escort Force only one was fitted with high frequency direction finding and four with modern radar. In addition, only one of the Canadian corvettes of the Mid-Ocean Escort Force, H.M.C.S. *Eyebright,* was modernized . . .[68]

The equipment crisis, and the consequent shortcomings in operational efficiency can be explained in part by a shortage of staff at Naval Service Headquarters, inadequate training and/or knowledge by the said staff, and finally, a lack of liaison with the Admiralty on matters pertaining to equipment.[69] David Zimmerman's The Great Naval Battle of Ottawa, has shown that the crisis is more complex than previously suggested in the literature. Insofar as radar was concerned, the problem was one of doctrine. As late as October 1942 the Naval Staff was still discussing the "utility of centimetric radar versus central gunnery directory controls and range finders."[70] Furthermore, the Naval Staff agreed that none:

> . . . of the existing centimetric radars which could be fitted in destroyers were sufficiently accurate to be used to direct long-range gunnery, and that their placement on the Rivers [River-class destroyers] might force the removal of the optical gear carried for this purpose. The replacement of the range finder and directory equipment would preclude the use of the destroyers in a fleet support role, thereby restricting them exclusively to anti-submarine warfare work. Many senior officers upheld the pre-war view that the only proper function for the professional navy was in support of the battlefleet, and believed that the placement of centimetric radar on the Rivers was the last

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[68]Marc Milner, "RCN Participation in the Battle of the Atlantic Crisis of 1943," in The RCN in Retrospect, 1910-1968, ed. James A. Boutilier (Vancouver: The University of British Columbia Press, 1982), p. 165.

[69]W. A. B. Douglas and Brereton Greenhous, Out of the Shadows: Canada in the Second World War, pp. 76-77.

[70]David Zimmerman, The Great Naval Battle of Ottawa (Toronto: University of Toronto Press, 1988), p. 78.

step in accepting the secondary escort role.[71]

Clearly, the Naval Staff had failed to recognize not only the value of radar to anti-submarine warfare but also the main role assigned to the Royal Canadian Navy. The Naval Staff's lack of understanding and constant procrastination on this matter would manifest itself in the Canadian escorts' poor showing in convoy defence. When the Royal Canadian Navy finally did settle on a policy, it came too late and this failure was partly responsible for the withdrawal of Canadian groups from the Mid-Ocean Escort Force in 1943.[72]

Despite these aforementioned shortcomings, Canadian efforts to gain autonomy in the North West Atlantic continued apace. According to Lund:

> Canadian naval officers, who had either been in the midst of the fighting or who had held important positions on the staff of Commanding Officer Atlantic Coast or Flag Officer Newfoundland force, were beginning to fill vital positions in Ottawa. These officers, and a number who had been at Naval Service Headquarters for some time, discovered an unwillingness at the higher levels to assert Canada's claim for more strategic responsibility in the control of the Royal Canadian Navy. Therefore, wheels were set in motion at lower levels to overcome this inertia.[73]

For the Royal Canadian Navy the issue was one of recognition. At this juncture in the Battle of the Atlantic the Canadian Navy was providing 48 per cent of the escorts, the

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[71]Ibid. For a detailed discussion of some of the other problems affecting the Royal Canadian Navy as it relates to the equipment crisis, please see chapters 1-10.

[72]The removal of Canadian escort groups from the Mid-Ocean Escort Force in early 1943 as a result of the equipment crisis has been confirmed by Marc Milner in his chapter, "Royal Canadian Navy Participation in the Battle of the Atlantic Crisis of 1943," pp. 163-69.

[73]W. D. G. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43," p. 145.

Royal Navy 50 per cent, and the United States Navy was supplying only 2 per cent.[74] In spite of this effort Canada was kept in the dark regarding policies which directly affected her forces. Furthermore, continued American attempts to transfer Canadian escorts from one Mid-Ocean Escort Force group to another without consulting Naval Service Headquarters culminated in Captain Lay's (Director of Operations) recommendation that "Canada press for assumption of responsibility of the operational control of all escort forces and convoys in the Western Atlantic."[75] Captain Lay cited Task Force 24's superfluous role which made effective cooperation between the Royal Navy and the Canadian Navy difficult.[76] He also highlighted the Royal Canadian Navy's valuable contribution to the Battle of the Atlantic, thus far. The Chief of the Naval Staff, Admiral P. W. Nelles, took up the cause and called for a conference to sort out the existing command relationships.

Late in January 1942, the Chief of the Naval Staff wrote to the Commander-in-Chief, United States Fleet, Admiral E. King, outlining his concerns. They were:

> the control of H.M.C. Ships in the Western Atlantic Area; the position of Commander Task Force 24 in relation to the flag officers in command of the

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[74]Ibid., p. 148.

[75]Ibid., p. 149. For a detailed discussion of the command relationship problems, please see W. D. G. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43," pp. 138-57; and Gilbert Norman Tucker, The Naval Service of Canada, vol. II, pp. 402-17.

[76]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 406. At least eight authorities were involved in anti-submarine escort arrangements in the Western Atlantic: Commander-in-Chief, United States Fleet; the Commander-in-Chief, Atlantic Fleet; Commander Task Force 24; Naval Service Headquarters; Commanding Officer Atlantic coast; Flag Officer Newfoundland force; the United States Army Air Corps; and the Air Officer Commanding Eastern air Command, Royal Canadian Air Force. With the increase in enemy activity and a fear of the conflicting opinions and confusion which might result led to the suggestion that the command structure be altered.

> Canadian naval commands in the Atlantic, namely commanding Officer Atlantic Coast and Flag Officer Newfoundland Force; and the scale of forces considered desirable by Naval Service Headquarters and the Canadian Government for the Western Local Escort Force and for general purposes in the Canadian coastal commands.[77]

The Commander-in-Chief, United States Fleet, concurred in the need for a conference. Canada also found support for a conference in British circles. Sir Percy Noble, head of the British Admiralty Delegation in Washington, concurred with the Americans. The Admiralty had long held the opinion that the command structure should be rearranged. To that end, the Atlantic Convoy Conference was scheduled for March 1, 1943, in Washington.

Paradoxically, as the Royal Canadian Navy pressed for a review of the command structure (given its experience and valuable contribution to the Atlantic campaign), events at sea were taking a turn for the worse. Early in November 1942, convoy SC 107, with Canadian Escort group-4 as its escort (consisting of H.M.C.S. *Restigouche* and six corvettes) was dealt a serious blow as it passed through the Greenland Air Gap beyond the protective range of Allied aircraft.[78] A total of fifteen ships were lost--more than one-third of the convoy--the worst Royal Canadian Navy disaster since convoy SC 42, fourteen months before, when a total of sixteen merchant ships were sunk. Coupled with the losses of convoy ON 127 in September, it was only a matter of time before changes were made to Mid-Ocean Escort Force.

The Canadian government's request for fourteen destroyers to strengthen both

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[77]Ibid., p. 408.

[78]Marc Milner, "Royal Canadian Navy Participation in the Battle of the Atlantic Crisis of 1943," p. 167.

the Western Local Escort force and Mid-Ocean Escort Force was seen by the Admiralty as an admission of difficulty on the part of the Royal Canadian Navy in meeting its commitment to convoy defence. In addition, the success of British groups in Mid-Ocean Escort Force seemed to confirm the Admiralty's and Western Approaches' opinion that the Canadian forces were poorly trained and inadequately equipped. Analysis of the convoy battles for a two-month period from mid-September until mid-November 1942, revealed that:

> British group losses amounted to thirteen ships and that they had claimed two U-boat kills. In contrast, twenty-two ships were lost by Canadian group-4 in two battles alone, while Canadian group-2 and American group-3 lost another six. Against this the Canadians and Americans could claim no U-boat kills.[79]

The British, therefore, proposed to remove the Canadian groups from Mid-Ocean Escort Force. These groups would be placed on the United Kingdom-Gibraltar route, where they would have the opportunity to avail themselves of Royal Navy training facilities. This proposal was an affront to the Naval Staff and did not go unchallenged. An investigation was launched immediately into the shortcomings of Canadian escorts in order to counter the British charges. As the Naval Staff "marshalled its case, events at sea robbed it of all legitimacy."[80] Convoy ONS 154 with Canadian group-1 as its escort was severely mauled by the Germans. While there may have been mitigating circumstances which helped to decide the outcome of the battle, such as "luck and poor

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[79]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 183.

[80]Marc Milner, "Royal Canadian Participation in the Battle of the Atlantic Crisis of 1943," p. 169.

routing,"[81] the ineffectual conduct of the Canadian escorts resulted in the loss of thirteen ships and one convoy-support vessel. The failure to ensure the safe and timely arrival of convoy ONS 154 effectively sunk the Royal Canadian Navy's challenge. This, in turn, meant that Canadian forces had to watch from the sidelines as the Battle of the Atlantic reached its peak in early 1943.

The four Canadian groups of the Mid-Ocean Escort Force were withdrawn and "handed over to the British, reducing Flag Officer Newfoundland Force's command from an active strength of thirty-three escorts to two destroyers and nine corvettes, most of which were engaged in inshore duties."[82] This meant in turn that the Mid-Ocean Escort force was reduced to nine groups. Unfortunately, the British were unable to maintain their convoy schedules with the escort groups available and suggested prior to the Atlantic Convoy Conference that the four Canadian groups be reassigned to Mid-Ocean Escort Force. During their temporary withdrawal from the North Atlantic the Canadian escorts were to receive the much needed equipment and training that they had lacked hitherto.

On the political front, at least, things were going much better for the Royal Canadian Navy. The Atlantic Convoy Conference had opened on March 1, 1943, in Washington. Admiral V. G. Brodeur, naval member Canadian Joint Staff, headed the Canadian delegation which included:

> Captains H. N. Lay, Director of Operations Division; Captain H. G. DeWolf, Director of Plans; Captain W. B. Creery, Chief of Staff to Commanding Officer Atlantic Coast; and Commander J. G. MacKinley, Canadian Naval

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[81] Ibid.

[82] Ibid.

Liaison Officer with Commander-in-Chief, United States Fleet.[83]

Admiral Brodeur tabled Canada's three main proposals:

(1) A North Atlantic area to be established and defined as the area north of 40° North. In this area control of convoys and anti-submarine warfare to be exercised solely by British and Canadian authorities (except within United States sea frontiers).

(2) The present Commanding Officer Atlantic Coast to become Chief North West Atlantic and to have general direction of all surface and air forces employed in anti-submarine warfare in the North West Atlantic.

(3) Control of convoys, U-boat information, diversion of convoys to be exercised by Naval Service Headquarters and Commander-in-Chief North West Atlantic to be similar to that by Admiralty and Commander-in-Chief, Western Approaches in North Atlantic.[84]

Six days later Admiral Brodeur was able to report that Canada's proposals had been ratified. It was also recommended that the Royal Navy and the Royal Canadian Navy assume full responsibility for the HX, SC, ON, and ONS convoys with the understanding that the United States would maintain strategic control in the Western Atlantic.[85]

The Canadian Navy's escort role was increased correspondingly: it was to be responsible for convoys west of a new "CHOP" line (change of Operational Command), which was established 47° West, where Western Approaches Command assumed control. Convoys sailing west of the "CHOP" line would come under the control of the

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[83]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 409.

[84]W. D. G. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43," p. 152.

[85]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 414. Rear-Admiral Murray, currently Commanding Officer Atlantic Coast would assume the title, Commander-in-Chief, Canadian North West Atlantic.

Commander-in-Chief, Canadian North West Atlantic (superceding that of Commanding Officer Atlantic Coast). Originally the transfer of command was to have taken place on March 31, 1943, but Admiral King's reluctance to transfer control to the Royal Canadian Navy forced a delay of one month. On April 30, 1943, the Commander-in-Chief, Canadian North West Atlantic, officially replaced Commander Task Force 24, Admiral R. M. Brainard, United States Navy, as the operating authority in the North West Atlantic, thereby marking the Royal Canadian Navy's return to the Battle of the Atlantic.[86]

As Milner notes:

> The Atlantic Convoy Conference was a watershed in Canadian and Royal Canadian Navy history. In the simplest sense it represented a recognition of Canada's special interest in the North Atlantic and a delegation of responsibility commensurate with the nation's commitment. It also provided the Royal Canadian Navy with a much needed and firm base upon which to consolidate and from which to dispatch with confidence aid to other theatres . . .[87]

The Atlantic Convoy Conference is important to the history of the Royal Canadian Navy for another and equally significant reason. It marked the Royal Canadian Navy's drive (in earnest) to secure a naval air service in order to meet its obligations as per the terms of the conference.

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[86]Ibid., p. 417. Admiral H. M. Brainard had replaced Admiral A. L. Bristol as Commander Task force Twenty-four in April 1942.

[87]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 234.

CHAPTER THREE

THE DRIVE FOR DIVERSIFICATION

". . . in the Fleet Air Arm the Navy has its most devastating weapon.

--Viscount Cunningham of Hyndhope

There is some confusion in the existing Canadian scholarship, as to when, the Royal Canadian Navy first recognized the utility of naval air forces for the successful prosecution of the war at sea. J. D. F. Kealy and E. C. Russell have identified the year as being 1942, whereas Stuart Soward has cited 1943 as the decisive year.[1] In a sense they are both correct: though indeed some clarification is required.

Acting-Captain H. Nelson Lay, Director of Operations Division, singled out 1941 as the year in which "it became quite clear that we had to have a great deal more help from the air"[2] to counter the U-boats. Lay based his observations on the fact that mercantile shipping losses were increasing and the number of surface escorts available was limited, this made it difficult to ensure adequate protection for the convoys. Moreover, shore-based aircraft operated by the Royal Canadian Air Force from bases in

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[1]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962 (Ottawa: Department of National Defence, 1965), p. 21; Stuart Soward, "Canadian naval Aviation, 1915-69," in The RCN in Retrospect, 1910-1968, ed. James A. Boutilier (Vancouver: The University of British Columbia Press, 1982), p. 273.

[2]Interview conducted with Rear-Admiral H. Nelson Lay, R.C.N., on January 14, 1974, DHist 74/653, p. 26. Lay is concerned primarily with anti-submarine warfare and the defence of the convoys, although, he does make mention of other aspects of naval aviation. In his memoirs he refers specifically to Fleet Air Arm operations against the Italian naval base at Taranto in 1941. Please refer to Rear-Admiral H. Nelson Lay, Memoirs of a Mariner (Ottawa: Lowe-Martin Company, 1982), p. 142.

Nova Scotia were of marginal value owing to their limited range and the fact that once an aircraft arrived on the scene it could provide protection only for a few hours before having to return to base. In light of these facts Lay turned his attention to the auxiliary aircraft carriers (escort carriers) that were being built in the United States and Great Britain.[3] According to Lay, U.S.S. *Bogue* was identified in 1941 as the first (American) escort carrier to provide protection for an Atlantic convoy. However, this was not possible, and suggests, therefore, that Lay was referring to H.M.S. *Audacity* instead.[4]

In December 1940 the Admiralty had ordered the conversion of the 6,000 ton *Hannover*, a captured blockade-running cargo ship, to an escort carrier. *Audacity* was fitted with a flight deck of:

> 368 feet x 60 feet, two arrester wires and a barrier, but no hangar. She was to be capable of operating six naval fighter aircraft for use primarily against the German long-range aircraft attacking [the] convoys. Her conversion to an aircraft carrier of this simple type was comparatively rapid and on June 17, 1941, she was commissioned at Blyth as H.M.S. *Audacity*.[5]

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[3]The terms auxiliary aircraft carrier and escort carrier are virtually synonymous, nevertheless, some clarification is required. The United States Navy General Order No. 541 of July 17, 1920, established a system of standard nomenclature for naval vessels. The initial list of United States Navy ship designations established the letters "CV" for Aircraft Carriers, with the U.S.S. *Langley* being designated CV-1. ACV Auxiliary Aircraft Carrier assigned on August 20, 1942, to aircraft escort vessels (AVG), the second step in the development of the escort carrier designation. AVG Aircraft Escort Vessel, first assigned on March 31, 1941, to merchant ships converted to aircraft carriers; the first step in the development of the escort carrier designation. BAVG indicated ships being converted for British use. CVE Escort Aircraft Carrier, assigned on July 15, 1943, to the merchant hull auxiliary aircraft carriers (ACV) and the ships of this general type under construction. Hereafter I will use the term escort carrier in place of auxiliary aircraft carrier.

[4]U.S.S. *Bogue* (CVE-9) was not completed until 1942 and did not see service until March 1943, when she joined anti-submarine operations in the North Atlantic.

[5]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II (Historical Section Admiralty, 1956), p. 76.

H.M.S. *Audacity* sailed from the Clyde on September 13, 1941, to escort the convoy 0G 74 to Gibraltar where convoys were in constant danger from shore-based German aircraft. During the course of this passage aircraft operating from *Audacity* were able to score one kill against a Focke Wulf 200 and assist in damaging one U-boat.[6] H.M.S. *Audacity* took part in three more convoy operations, HG 74, OG 76, and finally HG 76, before she met her death at the hands of U-751. In the four operations in which H.M.S. *Audacity* took part, her aircraft were responsible for the sighting of nine U-boats, intercepting four Focke Wulf 200 aircraft, scoring five confirmed kills of Focke Wulf 200 and damaging three others. *Audacity*'s success was directly responsible for the release of five merchant ships for conversion to escort carriers.[7]

Acting-Captain Lay claimed, "it was about the first month in 1942 that [he] started putting on paper [his] own ideas about the need for naval aviation, or more precisely carrier borne aviation which would be able to stay with the convoy throughout its entire passage across the Atlantic."[8]

Lay was alone in this appreciation and his observations at this stage never went much beyond a tacit recognition of the value of naval aviation. Nevertheless, Lay's interest in naval aviation was genuine. He had applied for the Fleet Air Arm course

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[6]Kenneth Poolman, Escort Carrier 1941-1945: An Account of British Escort Carriers in Trade Protection (London: Ian Allen, 1972), pp. 17-20.

[7]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, pp. 88-89. for a detailed summary of H.M.S. *Audacity's* operations please refer to pages 76-88.

[8]Interview conducted with Rear-Admiral H. Nelson Lay, DHist 74/653, p. 28. No evidence exists regarding Lay's claim that he put his ideas down on paper although it is quite plausible that this was the case given his interest in naval aviation and the Fleet Air Arm.

with the Royal Navy in 1927 and again in 1928, but was rejected both times.[9]

Prior to Acting-Captain Lay's observations Naval Service Headquarters had agreed in 1941 to an Admiralty request:

> [For] a limited number of Royal Canadian Naval Volunteer Reserve officers being trained for Fleet Air Arm duties. These were Royal Canadian Naval Volunteer Reserve ratings who had been serving with the Royal Navy and included 26 pilots and 4 observers who were promoted from the lower deck.[10]

As yet, no plans existed (at least formally) for the creation of a separate naval air branch for the Royal Canadian Navy. In May of 1942, Naval Service Headquarters received another request from the Admiralty for assistance in the manning of ships, due to manpower shortages. The Naval Board took the matter under advisement.[11] In the interim the Naval Board had received a letter from the Captain Commanding Canadian Ships and Establishments in the United Kingdom, Captain R. I. Agnew, dated May 13, 1942, requesting direction as to Canadian naval policy as it pertained to the Admiralty's

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[9]Ibid., pp. 9-10. In an attempt to get into the course in 1928 Lay used the argument that both the Royal Navy and the United States Navy had naval aviation and therefore it would be very useful to have one or two officers in the Canadian Navy who were trained in this form of naval warfare.

[10]Notes on Canadian Naval Aviation, Naval Historical Section, March 14, 1958, DHist 1700-219, vol. I, p. 2.

[11]Minutes of the Naval Board, May 4, 1942, DHist 1000-100/2. The Naval Board was established by an Order-in-Council P.C. 485, January 22, 1942, and replaced (to a degree) the functions of the Naval Council. Several directors who had been or had virtually become members of the Naval Council were not included in the Naval Board. The board comprised the Chief of the Naval Staff, the Vice-Chief of the Naval Staff (formerly Deputy Chief of the Naval Staff), the Chief of Naval Personnel (formerly Director of Naval Personnel), the Chief of Naval Engineering and Construction (formerly Engineer in Chief), and the Deputy Minister (financial and civil member). The board as such was advisory and had no authority; the Minister was not a member under the terms of the Order-in-Council, although in practice he often took the chair at meetings. Gilbert Norman Tucker, The Naval Service of Canada, vol. II, pp. 421-22.

request for assistance and further clarification with regards to established policy.[12] On May 28, 1942, the Naval Board responded:

> At the present time there is no objection to Canadian naval personnel on loan to the Royal Navy being transferred to the Royal Navy Fleet Air Arm. [However, it is] not intended to establish a Canadian Fleet Air Arm.[13]

It remains unclear, however, how many Canadian naval personnel were affected by the Naval Board's decision.

According to the literature there were only a few informal discussions during the autumn of 1942 amongst a small number of officers at Naval Service Headquarters regarding the possibility of establishing a Royal Canadian Naval Air Service.[14] The evidence suggests, however, that more than just informal discussions were taking place at Naval Service Headquarters. A memorandum was prepared by Commander C. Thompson, Royal Navy, on September 25, 1942, which dealt ostensibly with the need

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[12]Minutes of the Naval Board, May 28, 1941, Instructions to C.C.C.S. NS 1017-10-23:NS 100-1-23 F.D. DHist 2000-100/2. The C.C.C.S. was created in late 1940 to act as a liaison between the Admiralty and Naval Service Headquarters. His function was to observe all turns of operational policy affecting the Royal Canadian Navy in any way, in order to interpret the changing situation to Ottawa and suggest possible courses of action in response, preparing the way for direct signalled negotiations. At the same time he was available to give information about the Royal Canadian Navy to the Admiralty Staff whenever necessary. He was in effect the connecting link between the planning stages of the two navies. Gilbert Norman Tucker, The Naval Service of Canada, vol. II, pp. 448-53.

[13]Ibid. This sentence added in ink on the minutes.

[14]Memorandum from Lieutenant-Commander J. S. Stead, Director of Naval Air Division to Vice-Admiral G. C. Jones, Chief of the Naval Staff, May 19, 1942, DHist 1700-913, vol. I. The term Royal Canadian Naval Air Service will be used throughout this thesis to refer to the Canadian naval air branch, as it is in keeping with the nomenclature which was established during the Great War and was carried forward. Moreover, all correspondence dealing with the establishment of a Canadian naval air branch used the term Royal Canadian Naval Air Service. The question of its proper name was not settled until May 3, 1946, when the term Royal Canadian Naval Air Arm was agreed upon.

for naval pilots and observers in Royal Canadian Air Force squadrons employed on naval cooperation duties.[15] Commander Thompson was quick to point out that air operations over the sea were carried out far more efficiently by naval officers who had received air training than by their counterparts in the air force. Using this as the basis for his argument, he stated that:

> It follows from this that some form of Royal Canadian Naval Air Service must be created, and/or naval pilots and observers trained in order to carry out the various air cooperation duties that are required by the Royal Canadian Navy.[16]

Thompson supported his argument by contrasting Royal Navy Fleet Air Arm successes to date with Royal Air Force (both Fighter and Bomber Command) and Coastal Command achievements. Thompson was fully cognizant of the vital role played by the Royal Air Force and Coastal Command in the prosecution of the war but noted that "a separate air service appears to be fully justified, . . . provided the Navy and Army [sic] [Air Force?] are given full control over their own specialized requirements."[17] It remains unclear what impact this memorandum had on the Naval Staff. However, Commander Thompsons' second memorandum of January 1943 appears to have been

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[15]Memorandum by Commander C. Thompson, Royal Navy, "The necessity for Naval Pilots and Observers in Royal Canadian Air Force Squadrons Employed on Naval Cooperation Duties," dated September 25, 1942, DHist 2700-219, vol. I; Commander C. Thompson was at that time the Commanding Officer H.M.S. *Witherington* (a British destroyer) serving with the Western Local Escort Force. This memorandum which was unsolicited was in all probability submitted to Naval Service Headquarters on the basis of Thompson's experiences in escort duties and Fleet Air Arm successes.

[16]Ibid.

[17]Ibid.

solicited by Naval Service Headquarters.

By late 1942 the Admiralty had devised a scheme whereby Canadian officers could receive training as pilots or observers with the Fleet Air Arm while retaining their status in the Royal Canadian Naval Volunteer Reserve. A signal was sent by the Chief of Naval Air Services, Admiralty, on December 23, 1942, to the Chief of the Naval Staff, Admiral P. W. Nelles to sound out Canadian opinion on this matter.[18] The reply was delayed because serious consideration was now being given to the creation of a Canadian naval air branch. The Royal Navy's escort carriers' successes in confrontations with the U-boats, coupled with the poor showing (and subsequent withdrawal) of Canadian escort groups from the mid-Atlantic, had reinforced Canadian naval authorities opinion as to the value of naval air power. The first memorandum produced on the subject of Canadian naval aviation was submitted by the Director of Operations Division, Acting-Captain H. N. Lay and sent to the Vice-Chief of the Naval Staff, Vice-Admiral G. C. Jones and the Chief of the Naval Staff, Admiral P. W. Nelles, on January 11, 1943.[19] Lay reiterated the arguments advanced previously by Commander Thompson and noted that "all the important Navies in the world have their own Naval Air Service, which are [sic] directly under the control of these navies."[20] He further stated that the surface escorts and shore-based aircraft presently available were numerically insufficient

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[18]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 21.

[19]Memorandum, "Formation of Canadian Fleet Air Arm," Director of Operations Division, Acting-Captain Lay to Vice-Chief of the Naval Staff, Chief of the Naval Staff, dated January 11, 1943, DHist 2700-219, vol. I.

[20]Ibid.

and consequently were unable to meet the demands of trade protection and anti-submarine warfare. In addition, the adverse weather conditions often found on the east coast of Canada more often than not thwarted shore-based flying operations. Finally, Lay pointed out that both the Admiralty and the United States Navy were planning to provide escort carriers for trade protection duties. He therefore recommended that if the Royal Canadian Navy wished "to provide adequate escort for mid-ocean convoys, [it] must have, and be able to man, similar aircraft carriers for at least its mid-ocean groups."[21]

In light of these facts, Lay proposed the following recommendations:

(a) That one or more Commander or Captain in the Royal Canadian Navy should be exchanged with officers of similar rank in the Royal Navy, and that these Royal Canadian Officers should just be given an opportunity to study all phases of air operations and then should actually be appointed to Royal Navy aircraft carriers;

(b) That sufficient Officers and key ratings to man four escort carriers be sent as soon as possible to the United Kingdom for the necessary courses [thereby] gaining practical experience in the operation of this type of aircraft carrier; and

(c) That arrangements be made for the Royal Canadian Navy to either build, convert, or purchase four escort carriers to be used with the four Canadian mid-ocean escort groups; and

(d) That the Chief of the Naval Staff should answer the personal signal from the Chief of Naval Air Services in the affirmative. This [would] provide a very useful start in obtaining the necessary trained personnel.[22]

The Vice-Chief of the Naval Staff responded in a note on January 29, 1943,

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[21]Ibid.

[22]Ibid.

to the Chief of the Naval Staff urging that Acting-Captain Lay should "be sent to England to study all phases of naval air operations."[23] He also concurred with Lay's last recommendation that the Royal Canadian Navy respond positively to the Admiralty's request.

The following month another communication followed, this time from the Director of Plans Division, Acting-Captain H. G. DeWolf, to Vice-Chief of the Naval Staff and the Chief of the Naval Staff, on the subject of naval air protection. It has been suggested that the experiences gained by the Royal Canadian Navy in the North Atlantic in 1942 while carrying out trade protection duties made it clear that air escort was essential to combat the U-boat. However, no mention was ever made as to which convoys were involved and what losses resulting from a lack of air support, led to the aforementioned appreciation of naval aviation. DeWolf, however, cited convoy SC 118 as yet "another indication that escort vessels alone cannot provide protection required by a convoy against determined attack by U-boats."[24] Although convoy SC 118 was escorted by a British group consisting of three Royal Navy destroyers and four Free French corvettes and later reinforced by two United States Navy destroyers and a cutter, the group could not prevent the destruction of eleven ships. "To the British the performance of the escort drove home the need for training, teamwork, and good

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[23]Note from Vice-Chief of the Naval Staff to the Chief of the Naval Staff, dated January 29, 1943, DHist 1700-219, vol. I.

[24]Memorandum "Naval Air Protection" from Director of Plans, Acting-Captain H. G. DeWolf to Vice-Chief of the Naval Staff and Chief of Naval Staff, dated February 22, 1943, DHist 1700-219, vol. I.

leadership."[25] It also drove home the fact that effective air support was urgently required in the Greenland Air Gap and should be provided by both very long-range aircraft and escort carriers. As Milner has noted "in view of the recent criticism levelled against Canadian groups by the Admiralty the disaster which struck convoy SC 118 was ironic indeed for the British."[26] One can only speculate that similar convoy disasters such as SC 42 (September 1941), SC 107 (September 1942), ON 113 (July 1942), ON 115 (July 1942), and ON 127 (September 1942), which struck Canadian escort groups further reinforced certain Canadian naval authorities' opinions as to the value of naval aviation.[27]

DeWolf's memorandum also dealt with the need to explore other facets of naval aviation such as the possibility of using non-rigid airships (blimps) and helicopters, the latter operating from merchant ships in convoy. Finally, he, recommended that:

> The need for naval aircraft be recognized and the Naval Staff be directed to examine the requirements for establishing a naval air service and that this problem be treated as one of the highest priority.[28]

The following day the Vice-Chief of the Naval Staff advised the Chief of the Naval Staff that both the Director of Operations Division, Acting-Captain H. N. Lay,

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[25]Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys, p. 224.

[26]Ibid., p. 223.

[27]For a detailed account of these convoy battles refer to Marc Milner, North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys (Toronto: University of Toronto Press, 1985), pp. 64-214.

[28]Memorandum "Naval Air Protection," Director of Plans to Vice-Chief of the Naval Staff and Chief of the Naval Staff, dated February 22, 1943, DHist 2700-219, vol. I.

and the Director of Plans Division, Acting- Captain H. G. DeWolf "should examine and report on what practical steps the Royal Canadian Navy can take in this matter."[29] This, then, was the first formal proposal directing the Royal Canadian Navy to examine the possibility of establishing a separate naval air branch. In addition, the Vice-Chief of the Naval Staff indicated that both Lay and DeWolf "should keep this problem [of establishing a naval air service] in mind during the Washington discussions."[30] He was referring to the upcoming Atlantic Convoy Conference scheduled for March 1, 1943. This is the first indication that the creation of a separate naval air branch was tied to the Atlantic Convoy Conference and Canada's campaign for autonomy in the North West Atlantic.

Tucker has recounted that prior to the Atlantic Convoy Conference, Acting-Captain Lay, was of the opinion that the United States should retain strategic control of the North West Atlantic owing to the "universal nature of the war, and because the Canadian navy, despite its development, lacked battleships, aircraft carriers, cruisers, and even fleet destroyers."[31] This did not, however, prevent Lay from advocating a balanced fleet in which aircraft carriers would be an integral component. Presumably once the Royal Canadian Navy had acquired the necessary ships it would press for strategic control as well. At the Atlantic Convoy Conference five sub-committees were appointed to deal with the agenda. These sub-committees with their respective Canadian members

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[29]Note from Vice-Chief of the Naval Staff to Chief of the Naval Staff dated February 23, 1943, DHist 1700-219, vol. I.

[30]Ibid.

[31]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, pp. 406-7.

were:

> Command Relations, Rear-Admiral Brodeur; Convoys and Escorts, Captain Brand, Captain Lay, and Captain DeWolf; Air Support for Atlantic Convoys, Air Vice Marshal Anderson; Training and Material Readiness of Operational Escort Groups, Captain Creery; Communications and Operational Intelligence, Commander de Marbois and Lieutenant Jarvis. A further sub-committee was formed to coordinate and implement the recommendations of the others.[32]

Admiral Sir Percy Noble, Head of the British Admiralty Delegation Washington (formerly Commander-in-Chief, Western Approaches) pointed out during the opening address that:

> To my mind, the greatest factor in the successful prosecution of this war is shipping. . . . Too much shipping is in danger of being destroyed. And at this moment the situation is causing anxiety to all concerned. . . . The submarine menace, to my mind, is becoming every day more and more an air problem. . . . My experience is that provision of air cover is the only way to enable a slow-moving convoy to escape a pack of U-boats which has been following it. The aircraft causes the U-boats to submerge, thereby allowing the convoy to use evasive tactics.[33]

The importance of aircraft to the successful prosecution of the Battle of the Atlantic would not be lost on the Canadian delegation as we shall see.

The first problem to be discussed at the second meeting on March 3, 1943, was that of convoys and escorts. The Convoy and Escort Sub-Committee recommended the following:

> . . . that the United Kingdom and Canada should furnish all escort vessels for HX, SC, ON, and ON 5 convoys; that the United States should make available

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[32]Ibid., p. 411.

[33]Atlantic Convoy Conference March 1-12, 1943, Report of Conference, Copy no. 4--Extracts from DHist 81/520/1270 Conferences 1920-1945, vol. II.

> to Great Britain, until July 1, 1943, one escort group consisting of an auxiliary carrier and five operational destroyers to support the British and Canadian convoy escorts; that the Royal Navy should maintain two such groups, and Canada one without an aircraft carrier. . . .[34]

The sub-committee also noted that because of the reduction of escorts in the Western Local Escort Force and the United States coastal convoys, more reliance must be placed on air coverage. This recommendation also applied to mid-ocean convoys. In addition to the aforementioned recommendations, all anti-submarine warfare aviation was to be placed under the operational control of the Canadian Air Officer Commanding, Eastern Air Command Headquarters, who, under the general operational direction of the Commander-in-Chief, Canadian Northwest Atlantic Command, west of the CHOP line, shall be responsible for the air coverage of all shipping within range, including Greenland convoys and other shipping under United States control. The official recognition now afforded aircraft (as a result of the Atlantic Convoy Conference) to the prosecution of the Battle of the Atlantic, coupled with Canada's expanding role in that campaign, combined to provide the necessary impetus for the Royal Canadian Navy to pursue its own naval air service.

In response to the Vice-Chief of the Naval Staff's recommendation that both the Director of Plans and the Director of Operations examine and report on what steps could be taken to establish a naval air service the aforementioned directors issued a joint memorandum on April 6, 1943. The report of Lay and DeWolf recommended that air escort could be provided in three ways:

(a) By shore-based aircraft operating from United Kingdom, Iceland,

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[34]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 412.

Greenland and North American bases; and

(b) By aircraft launched or lowered from surface escort vessels or merchant ships; and

(c) By aircraft flown off from carriers.[35]

They urged that all three methods of supplying air support should be developed, "because there will be many occasions on which, either due to bad weather or distance from operating bases, that shore-based air coverage cannot be provided for North Atlantic convoys.[36] The drawbacks of aircraft launched or lowered from surface escorts was not mentioned in their report, but has been dealt with previously. Lay and DeWolf then went on to point out that both the Royal Navy and the United States Navy had developed an auxiliary aircraft carrier which was capable of operating a squadron of twelve aircraft.

The Lay/DeWolf memorandum was not limited to an examination of carrier-borne aviation. Two sub-sections of the report described recent developments in naval aviation (which will be treated separately) and urged further investigation. Firstly, the use of helicopters, whose potential for trade protection duties was only now being realized, was discussed. This appreciation was based on recent trials where helicopters operated from the stern of a merchant ship. The Admiralty was so impressed that 250 helicopters were ordered and they were expected to take delivery late in 1943. Naval Service Headquarters had received a request from the Admiralty on March 2, 1943, for

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[35]Memorandum "Policy re: Canadian Naval Air Services" from Director of Operations Division, Director of Plans to Vice-Chief of the Naval Staff dated April 6, 1943, DHist 1700-219, vol. I.

[36]Ibid.

ten Royal Canadian Volunteer Reserve officers to be trained as pilots in helicopters. The Chief of the Naval Staff responded positively to this request although with the proviso that these officers as well as any other personnel now serving with the Fleet Air Arm be made available to the Canadian navy should a Royal Canadian Naval Air Service be established.[37]

Secondly, Lay and DeWolf reviewed another matter currently under consideration at Naval Service Headquarters, namely the operation of non-rigid airships (blimps) in convoy protection and patrolling duties. The idea of operating non-rigid airships had been brought to the attention of the Royal Canadian Air Force early in 1942, but the air force did not respond to the American offer. Consequently, Staff Officer Air, J. S. Stead, was sent to the United States Naval Air Station, Lakehurst, New Jersey, in the fall of 1942, to determine what role non-rigid airships could play in anti-submarine warfare. As a result of Stead's report, Acting Captain Lay recommended on December 15, 1942, that two officers be sent to Lakehurst for training. This recommendation was approved and "Lieutenants J. G. Fraser and H. H. W. Shoup, Royal Canadian Naval Volunteer Reserve, were sent to take the airship pilot's course. . . ."[38] The memorandum extolled the virtues of non-rigid airships in an anti-

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[37]Report prepared by Staff Officer Air, Operations Division, Lieutenant-Commander, J. S. Stead, Royal Canadian Navy, "Formation of a Canadian Naval Air Service," dated May 4, 1943, RG 24 83-84/167, Box 575, file 1700-913, part A, Public Archives of Canada (hereafter referred to as P.A.C.). This particular aspect of naval aviation is not the focus of my thesis. It is interesting to note, however, that the early development of helicopters for use in an anti-submarine role has been virtually ignored in the Canadian literature and is worthy of further investigation.

[38]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 21.

submarine warfare role and urged the Naval Staff to consider the acquisition and operation of these aircraft in the near future.

Particularly important insofar as this thesis is concerned were Lay and DeWolf's comments on future naval air policy in the Royal Canadian Navy. W. A. B. Douglas has related how "the matters that engaged the attention of the Naval Staff were immediate and pressing--crystal ball gazing was not one of its preoccupations."[39] Yet, crystal ball gazing was exactly what certain Canadian naval officers were doing. Lay and DeWolf began by noting that air was playing an increasingly important part in all anti-submarine operations and in the protection of convoys. To further enhance their argument they stated that all the important navies of the world had their own air services which were not only integral parts of their respective fleets but added to the fighting efficiency of those fleets both offensively and defensively. Therefore, in view of the fact that:

> Canada's most important naval contribution to the war effort of the United Nations is the protection of North Atlantic convoys, of which she is undertaking a steadily increasing share, it is desirable that the Royal Canadian Navy should give full and immediate consideration to the question of forming a Canadian Naval Air Service. It is probable that Air [sic] will be the decisive factor in the Battle of the Atlantic.[40]

Finally, although it was difficult to project the size of the post-war fleet, Lay and DeWolf concluded that it was essential to include a naval air branch. In order to

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[39]W. A. B. Douglas, "Conflict and Innovation in the Royal Canadian Navy, 1939-1945," p. 215.

[40]Memorandum Director of Operations Division, Director of Plans, to Vice-Chief of the Naval Staff dated April 6, 1943, DHist 1700-219, vol. I.

expedite the process it was considered by Lay and DeWolf most desirable that the nucleus of a naval air service be established and plans made for expanding it. In light of these aforementioned factors, Lay and DeWolf recommended to the Naval Staff that:

> (a) [The] Naval Staff should carefully consider all factors of the air aspect of naval warfare and decide whether or not it is desirable to establish a Canadian Naval Air Service; and
>
> (b) That in the meantime, and irrespective of the above decision, the Royal Canadian Navy should continue to allow officers to specialize in air and be lent for service with the Royal Navy until required in Canada . . .; and
>
> (c) That, in addition to the above, other officers and ratings, of the various categories necessary for manning aircraft carriers and shore bases, should be sent to the Royal Navy for instruction and for service with the Royal Navy until required in Canada; and
>
> (d) That a Naval Air Division should be formed at Naval Service Headquarters as soon as practical to keep in touch with all the various developments of the air aspect of naval warfare in view of the fact that, irrespective of whether Canada has a Naval Air Service or not, the air aspect is of vital concern to any Navy whose forces are employed in anti-submarine warfare; and finally
>
> (e) That a senior officer should be sent to the United Kingdom and, if possible, to the United States as well to study all aspects of naval air operations, including experience at sea in a carrier, with a view to the possible formation of a Canadian Naval Air Service.[41]

Lay and DeWolf had borrowed many of the arguments used the previous month by Admiral Sir Percy Noble, British Admiralty Delegation, at the Atlantic Convoy Conference, to support their case for establishing a naval air branch. Implicit throughout these documents was the connection between the Royal Canadian Navy's role in anti-submarine warfare and the creation of a Canadian North West Atlantic

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[41] Ibid.

Command and the fact that both the Royal Navy and the United States Navy were using carrier-borne aviation to carry out similar duties. It had not gone unnoticed that the Royal Navy and the United States Navy were to employ escort carriers in the Atlantic on trade protection duties and if the Royal Canadian Navy hoped to fulfil her primary role in anti-submarine warfare it was absolutely essential that the Canadian navy acquire a naval air service of her own. Failure to obtain and operate escort carriers:

> . . . might well show a gradual decline both in its strength as an escort service and in the strength of its strategic control and relations with the Navies of the United Kingdom and the United States for only can actual experience in the operations of such vessels entitle a Naval Service to voice an opinion on their operations and there is no reason to suppose that the conduct of escort groups may not eventually centre around the growing importance of the Air Arm and through that the escort carrier.[42]

Lay and DeWolf's recommendations were accepted by the Naval Board on April 12, 1943. It was noted by the Chief of Naval Personnel, Captain E. R. Mainguy, that personnel required for naval aviation duties could well receive consideration in the near future, including:

(a) The formation of a complement, with reserves, for one carrier;

(b) The transfer to Royal Canadian Naval Volunteer Reserve personnel who, in the early days of the war, joined the Royal Navy Volunteer Reserve (A) for Fleet Air Arm;

(c) The sending of ratings for training with the Royal Navy of selected officers and ratings.

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[42]Report prepared by Staff Officer, Air, Operations Division, Lieutenant-Commander, J. S. Stead, "Formation of a Canadian Naval Air Service," dated May 4, 1943, RG 24 83-84/167, Box 575, file 1700-913, part A, P.A.C.

The Naval Board recommended that this matter remain under constant review and that a senior officer be sent to Great Britain and the United States to study all aspects of naval air operations and make a report and recommendations to the Naval Staff.[43] Acting-Captain Lay was chosen to carry out this fact-finding mission.

Permission had been granted prior to the Naval Board's decision of April 12, 1943, for Staff Officer Air, J. S. Stead, to visit Washington, Norfolk Virginia, and Lakehurst New Jersey. In addition he would visit H.M.S. *Tracker* and U.S.S. *Charger*, to study and report on non-rigid airship operations and problems connected with establishing a naval air service.[44] Stead spent a week visiting the American naval air stations as well as embarking in H.M.S. *Tracker* from Norfolk, Virginia, to New York. He filed his report on April 9, 1943. The section of the report concerned with establishing a naval air service focused primarily on comparing the Royal Navy Fleet Air Arm to the United States Naval Air Service. The United States Naval Air Service, it was pointed out, was an entirely separate organization in the Navy Department under the administrative name of Bureau of Aeronautics. Furthermore, no control was exercised over this Bureau other than strategic. But it should be noted that this administration was entirely concerned with aircraft, their supply and maintenance and

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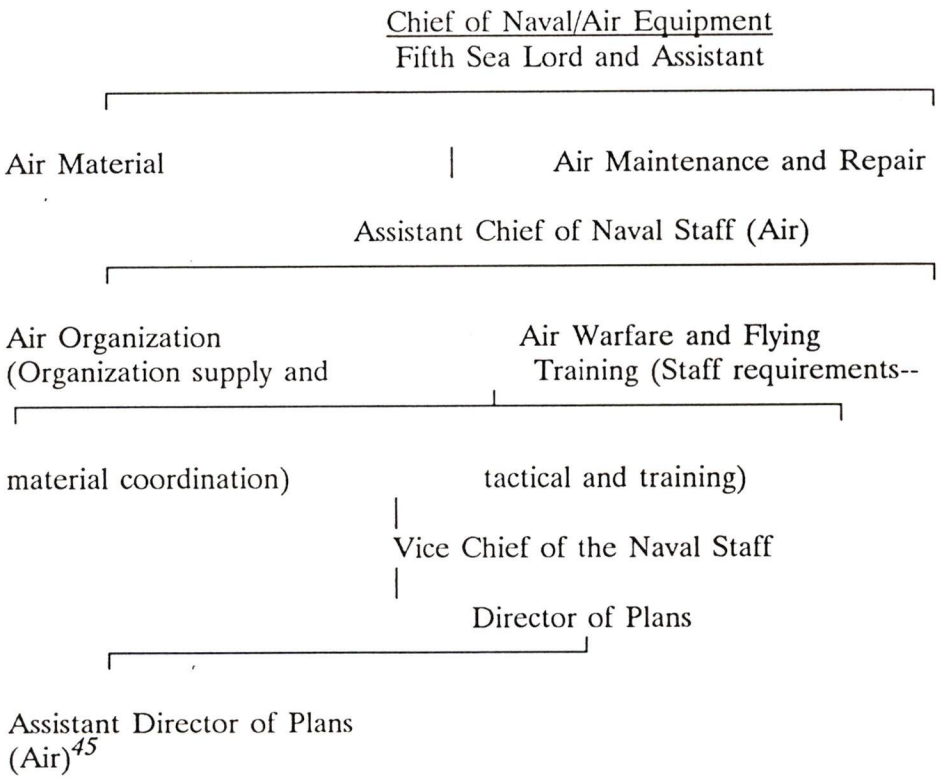
[43]Naval Board Minutes, April 12, 1943, DHist 1000-100/2.

[44]Letter from naval member, Canadian Joint Staff, Rear-Admiral V. G. Brodeur, to the Office of the Chief of Naval Operations, Lieutenant-Commander, Kelso Daly, United States Navy, dated March 31, 1943, RG 24, vol. 11975, file 2756-3, P.A.C.; Lieutenant-Commander J. S. Stead, Royal Canadian Navy (temporary) had served with the Royal Navy as a Lieutenant in the Fleet Air Arm, serving in H.M.S. *Glorious* until November 21, 1936, when he was released from active duty for medical reasons. His seniority in the Royal Canadian Navy dated from August 24, 1942. He served as Staff Officer Air, Operations Division and from June 14, 1943 as Section Head "Tactics," Division of Warfare and Training.

the personnel that manned them. The aircraft carriers themselves came under the control of the Bureau of Ships. Stead pointed out that this arrangement, while it ensured direct control over the design, development, and experimentation and manufacture of aircraft, resulted in considerable duplication of effort on the part of aircraft designers and manufacturers. On the other hand, the Fleet Air Arm was administered by an organization built up within the existing branches of the Admiralty, as shown below:



While this form of organization avoided the duplication of administrative effort found in

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[45]Report of Visit of Staff Officer (Air) to Washington, Norfolk, and in H.M.S. *Tracker,* April 1-7, 1943, dated April 9, 1943, RG 24 83-84/167, Box 575, vol. 1700-913, Part A, P.A.C.

the American system, it was not without its flaws. Firstly, the system did not enable the Fleet Air Arm to have complete control over its own requirements. Secondly, the Ministry of Supply which controlled the manufacture and supply of aircraft for both the Royal Air Force and the Fleet Air Arm favoured the former.[46] This in turn resulted in many Fleet Air Arm aircraft being Royal Air Force types converted for war in aircraft carriers.

Consequently, J. S. Stead recommended that the issue of "own control" (design and manufacture of naval aircraft) be settled prior to the creation of a Royal Canadian Naval Air Service. This appreciation was based on the experience of the Fleet Air Arm.[47] In addition, Stead pointed out that the "suggestion [had been] made that the Royal Canadian Navy should man a carrier as far as ordinary ship's personnel was concerned."[48] He opined that this would provide valuable experience for Canadian personnel until such time as a naval air service was established. Finally, Stead compared the relative attributes of shore-based very long-range aircraft and carrier-borne aircraft in trade protection duties. Although Stead was cognizant of the bias exhibited by the Fleet Air Arm officers to whom he spoke, he nevertheless sided with these officers in both recognizing and promoting the use of carrier-borne aircraft over shore-based very long-range aircraft. This is perhaps best illustrated by Stead's closing comment that, "it is

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[46]See Geoffrey Till, Air Power and the Royal Navy 1914-1945: A Historical Survey (London: Jane's Publishing Company, 1979), for a detailed discussion of dual control and the effects on the Fleet Air Arm. See also S. W. Roskill, Naval Policy Between the Wars, vol. I and II (London: Collins Press, 1968, 1976).

[47]Report of Visit of Staff Officer (Air), dated April 9, 1943, RG 24 83-84/167, box 575, vol. 1700-913, Part A, P.A.C.

[48]Ibid.

considered that escort carriers may well take the place of very long-range aircraft, although medium and long-range aircraft will still have a big part to play in coastal zones."[49] It was Stead's opinion that very long-range aircraft were ill-suited to carry out anti-submarine operations owing to their size and lack of manoeuvrability. Furthermore, he argued that navigational problems and weather conditions would prevent very long-range aircraft from providing continuous air support for the convoys. Only escort carriers, in Stead's opinion, could furnish the necessary protection.

Shortly after J. S. Stead's report had been filed Acting-Captain Lay submitted a memorandum to the Naval Staff, dated April 27, 1943. It resulted from a visit to Washington for the purpose of arranging an itinerary to the United States and the United Kingdom to investigate the feasibility of establishing a Canadian naval air service.[50] Two days later Acting-Captain Lay was instructed by the Minister of National Defence for Naval Services, the Honourable Angus L. Macdonald:

> To make a report on the desirability of forming a Royal Canadian Naval Air Service and detailed recommendations as to how this should be proceeded with.[51]

Lay departed for the United States on May 1, 1943, for a whirlwind two-week tour of

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[49]Ibid.

[50]Report prepared by Staff Officer, Air, Operations Division, Lieutenant-Commander J. S. Stead, "Formation of a Canadian Naval Air Service," dated May 4, 1943, RG 24, 83-84/167, Box 575, file 1700-913, Part A, P.A.C.

[51]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, n. 3, p. 34. the post of Minister of National Defence for Naval Services was created by an amendment to the Department of National Defence Act, passed in July 1940. See Appendix I for a summary of Royal Canadian Navy principal commands and appointments.

the following naval air establishments; Norfolk, Virginia; Jacksonville, Florida; Pensacola, Florida; and Lakehurst, New Jersey.[52] He filed his first progress report on May 10, 1943. This report dealt with lighter-than-air operations (non-rigid airships). As a result of conversations held with Captain G. H. Mills, Commander Fleet Airship Wing Thirty, and Commander R. F. Taylor, Commander Airship Group One, at the Lakehurst naval air station, Lay proposed that Canada seriously entertain the idea of operating non-rigid airships. He based his recommendations on the fact that the Americans were planning to operate up to twelve airships in Canada off the east coast of Canada as well as in the Gulf of St. Lawrence. Given the scale of the plan it was proposed that a temporary base be established at Gaspé to conduct airship trials before any ambitious program was undertaken.[53] The cost to the Canadian government for establishing the temporary base would be small provided the base was situated near an existing Royal Canadian Navy or Royal Canadian Air Force base, and the following facilities were furnished:

(1) A level area approximately 500 feet in diameter connected by a roadway to a suitable landing strip approximately 2000 feet long; and

(2) Accommodation for an airship crew of nine officers and twenty-one men plus a ground administrative crew of six officers and nine men [supplied

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[52]Acting-Captain H. N. Lay's "Report on the Formation of a Royal Canadian Naval Air Service," dated August 27, 1943, copy no. 7, p. 72, RG 24 83-84/167, Box 575, file 1700-93, Part A, P.A.C. Lay was to communicate (periodically) his findings to the Secretary of the Naval Board, Paymaster Commander, Joseph Jeffrey, Royal Canadian Naval Volunteer Reserve (Temporary). The results of Lay's findings are to be found in his comprehensive report which is a compilation of reports filed while on his six month tour of the United States and United Kingdom.

[53]Ibid., p. 68. The document does not mention the actual cost involved other than Acting-Captain Lay's assertion that it would be small. It is interesting to note that this aspect of naval aviation has not been covered in either J. D. F. Kealy and E. C. Russell's book, A History of Canadian Naval Aviation 1918-1962 or Gilbert Norman Tucker, The Naval Service of Canada, vol. II.

by the Americans]; and

(3) A ground handling crew of approximately forty men to be provided by either the Royal Canadian Navy or the Royal Canadian Air Force. These men could be any non-skilled personnel who would be given the necessary instruction for handling airship lines, in one hour.[54]

If the trials went according to plan and the necessary government approval was given for the much more ambitious plan, Lay envisaged an even greater role for the Royal Canadian Navy.

In order for the Americans to operate up to twelve non-rigid airships it would be necessary to build four dock bases and some half dozen auxiliary mast bases at intermediate points. A total of three non-rigid airships would operate from each of the four dock bases one of which would be located in the Halifax area which would serve as the main overhaul and repair center. The three operating bases would be "advantageously placed in the following localities, respectively: Shelbourne, Sydney, and on the Gaspé Peninsula. The auxiliary mast bases [would] be interspersed between those dock bases . . . one mast base could be advantageously placed on Prince Edward Island, and another on Anticosti Island."[55] The number of personnel required on the basis of three flight crews per airship (three officers, seven men per flight crew) plus necessary ground personnel (60-man ground crews at dock bases, 40-man crews at mast bases), would involve:

(a) Halifax base--50 officers, 200 men; and

(b) At each of the three operating dock bases--40 officers and 150 men; and

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[54]Ibid.

[55]Ibid., p. 70.

(c) At each of the auxiliary mast bases--25 officers and 85 men.[56]

The cost involved in constructing the aforementioned bases amounted to approximately thirty million dollars.[57] Initially, the flight personnel and the airship maintenance, repair and overhaul personnel would come from Fleet Airship Wing Thirty while the station personnel and ground crews would be Canadian. However, it was Acting-Captain Lay's opinion that Canadian officers and men should be trained as soon as possible "with a view to the Canadians taking over the whole operation at an early date."[58] Although Acting-Captain Lay was instructed by the Minister to study and report on all aspects of naval aviation, there is no mention in his report of the use of helicopters in an anti-submarine role.[59] It will be recalled, however, that this particular aspect of naval aviation was being investigated by naval service headquarters.

The rest of Lay's trip was devoted to an examination of the pros and cons of establishing a Canadian naval air service along American or British lines. Lay's next progress report was filed on May 21, 1943, while on board H.M.S. *Empress of Scotland*, bound for the United Kingdom. In the appendix to his report Lay provided a detailed account of the organization of naval aviation in the United States Navy Bureau of Aeronautics. He touched on pilot training, maintenance, assembly and repair, as well as

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[56]Ibid.

[57]Ibid.

[58]Ibid., p. 71.

[59]The fact that the helicopter was a relatively new invention and as yet untried as an anti-submarine weapon may account for the lack of discussion in Lay's report.

on the overall organization of the Bureau of Aeronautics and its relationship to the Commander-in-Chief, United States Fleet. Lay noted in that report that the Americans were very receptive to the idea of the Royal Canadian Navy establishing a naval air service. As a result of the conversations held with senior American officers Lay concluded that if a Canadian naval air service were established the carriers and aircraft acquired would be of American construction.[60]

Therefore it seemed logical to train the necessary personnel in United States Navy schools. Lay foresaw the following advantages:

> (a) Royal Canadian Navy air Personnel would obtain the benefit of the vast training organization which [had] been set up by the United States Navy. The comparatively small number of Royal Canadian Navy personnel required could easily be handled without any disorganization. This is probably not true in Royal Navy schools; and
>
> (b) the Royal Canadian Navy would benefit by the extensive carrier experiences which the United States Navy has had during the present war and by the actual combat experience of a large number of instructors in the schools . . .;
>
> (c) Carrier-type aircraft-fighters, dive-bombers, and torpedo bombers are very different from land based aircraft and require specialized flight and ground personnel. This specialized training for United States Navy type aircraft (which we would be flying) is available at United States Navy schools. This is not true at either Royal Canadian Air Force or Royal Navy schools; and
>
> (d) The type of maintenance personnel in the United States Navy are much fewer than in the Royal Navy, and their training is therefore simpler; and
>
> (e) The transportation of personnel to United States Navy training schools would be much quicker than to Royal Navy schools . . .; and
>
> (f) Royal Canadian Navy personnel would have the advantage of carrying out their entire training in naval aviation schools instead of partly Royal

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[60]See Appendix III for a list of American officers interviewed.

Canadian Air Force and partly Royal Navy.[61]

The only disadvantage Lay foresaw was the fact that Royal Canadian Navy ships would normally be working with Royal Navy ships.[62] Although ties to the parent service were still strong, this did not prevent Lay from steering the most expedient course in an effort to acquire a Canadian naval air service. This is perhaps best illustrated by his closing remark, that, "This preliminary report should be submitted, so that the possibility of United States naval training might be considered before any definite commitments were made with the Royal Navy or Royal Canadian Air Force."[63] Finally, he stressed that the Royal Canadian Navy should have control over all shore-based and carrier-borne aircraft.

Acting-Captain Lay filed two reports from Great Britain: one after visiting the various naval air stations, the other one after visits in H.M.S. *Archer* (an escort carrier) and H.M.S. *Illustrious* (a fleet carrier). These reports gave a detailed account of the various Admiralty departments and divisions concerned with the administration of the Fleet Air Arm. Lay left the comparison between the United States Navy and Royal Navy in the organization and operation of their respective naval air services until the

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[61]Acting-Captain Lay's "Report on the Formation of a Royal Canadian Naval air Service," dated August 27, 1943, copy no. 7, p. 74, RG 24, 83-84/167, Box 575, file 1700-913, Part A, P.A.C.

[62]Ibid.

[63]Ibid., pp. 74-75. See Jeffrey K. Wright, "The Canadianists: A Desire for a 'Small Fleet' Royal Canadian Navy" (Kingston: n.p., 1980), an unpublished honours paper, DHist 89/18, for a discussion of the Royal Canadian Navy's drive for autonomy and move away from the concept of imperial defence. See also W. D. G. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43," pp. 138-57.

completion of his tour.[64] The only recommendation he made in the interval was that arrangements be made with the Admiralty to train a number of maintenance ratings as air mechanics, air fitters and air artificers.[65] This recommendation was accepted and prior to Lay's return to Ottawa the Senior Canadian Naval Officer (London), Commander F. A. Price, was instructed to make the necessary arrangements with the Admiralty. The following groups were to undergo training:

> (a) Fifty-five officers of the Royal Canadian Navy and Reserves to be trained as pilots and observers with the Fleet Air Arm retaining their Canadian identity and subject to recall if, and when, a Canadian naval air service is established.
>
> (b) A limited number of Canadian volunteers for air fitter, air mechanic, etc., to train with the Royal Navy for service with the Fleet Air Arm, subject to recall by the Royal Canadian Navy in the event of the formation of a Canadian air service.
>
> (c) Twenty-five ratings with sea experience to train as naval gunners with the Fleet Air Arm, subject to recall as above.[66]

A decision regarding the training of ratings was deferred until such time as a decision had been made concerning the establishment of a Royal Canadian Naval Air Service.

Acting-Captain Lay's final report was submitted to the Naval Staff on

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[64]See Appendix IV for a list of Royal Naval Officers interviewed at the Admiralty.

[65]Ibid., p. 87.

[66]Memorandum from Secretary of the Naval Board to the Senior Canadian Naval Officer (London), July 31, 1943, N.S. 53-17-1, RG 24, 83-84/167, Box 575, file 1700-913, Part A, P.A.C.

August 27, 1943.[67] To date, Canadian scholarship has disregarded most of the key recommendations.[68] The failure of historians to account for the decisions reached, in the recommendations they do cite, is even more difficult to understand. One is left wondering whether or not Lay's report was even read. Included in Lay's recommendations were that:

(a) That a Royal Canadian Naval Air Service be established as soon as possible.

(b) That the Royal Canadian Naval Air Service should be manned by naval personnel and be under the direct administrative and operational control of the Royal Canadian Navy.

(c) That the organization and training of the Royal Canadian Naval Air Service should be modelled on that of the British Fleet Air Arm with modification.

(d) That the Royal Canadian Naval Air Service should concern itself with carrier operations only.

(e) That a naval air branch be immediately established at Naval Service Headquarters and that the Admiralty be asked to lend a number of experienced officers to fill the key positions.

(f) That a number of senior Royal Canadian Navy officers should be lent to the Royal Navy for service in aircraft carriers or naval air stations.

(g) That initially the Royal Canadian Naval Air Service should be planned to include two escort carriers with the necessary maintenance facilities.

(h) That the growth of the Royal Canadian Naval Air Service should be planned to provide sufficient carriers of suitable types to ensure that the

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[67]In the preparation of the final draft Acting Captain Lay had the assistance of Lieutenant J. A. Powell, Royal Canadian Naval Volunteer Reserve. Powell had been trained as a naval observer and had been serving with the Fleet Air Arm.

[68]The works to which I refer are J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 23; Stuart Soward, "Canadian Naval Aviation, 1915-1969," in The RCN in Retrospect, 1910-1968, ed. James A.Boutilier (Vancouver: The University of British Columbia Press, 1980), p. 273.

> air balance is appropriate to the size of the Canadian fleet and to its commitments.
>
> (i) That a joint Royal Canadian Navy-Royal Canadian Air Force technical committee be set up.[69]

Lay placed great emphasis on the role of naval air power in the present war and envisaged a time when the aircraft carrier would replace both the battleship and cruiser as the capital ship of the future. In addition he pointed out that command of the air was crucial especially in amphibious operations and this could best be provided by carrier-borne aircraft. Although support could be furnished by shore-based aircraft, navigation, weather conditions, and the limited range of existing aircraft prevented the Air Force from providing continuous air support for the fleet.[70] The lack of proper air support for a fleet, was according to Lay, clearly demonstrated with the loss of H.M.S. *Prince of Wales* and *Repulse* in 1941. The Royal Navy, cognizant as to the value of carrier-borne aviation, called for a fleet consisting of:

> Ten fleet carriers, twenty light fleet carriers, twenty merchant aircraft carriers and sixty to seventy escort carriers by 1946. The number of battleships in commission, however, would amount to ten, all types.[71]

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[69]Acting-Captain Lay's "Report on the Formation of a Canadian Naval Air Service," pp. 32-35.

[70]According to this scenario carrier-borne aviation would play an even greater role in the "Battle of the Pacific" owing to the great distances involved and the lack of shore-based facilities available from which the Air Force could operate its very long-range aircraft. Hence the need for the Canadian navy to acquire aircraft carriers (which are mobile air bases).

[71]Acting-Captain Lay's "Report on the Formation of a Royal Canadian Naval Air Service," pp. 3-4.

In addition, Lay noted that Canada's main naval commitment (thus far) had been trade protection in the North Atlantic and if Canada was to meet her obligations the navy would have to have the means to carry out its role. Insofar as trade protection was concerned, Lay felt, that aircraft carriers were essential to complement surface and air escort forces presently deployed in the mid-Atlantic. By August 1943 "there were 36 Very Long Range aircraft available; not many, but enought to maintain air cover in the Greenland Air Gap north of the 50th parallel."[72] In terms of the post-war navy Lay put forth two arguments which were interrelated. He stated that:

> Canada in the last ten years has become one of the world's largest exporting nations and she is playing an ever-increasing part in Empire and world affairs. It is inconceivable that she will not wish to continue to provide adequate protection for her growing volume of trade to make a contribution to Empire Defence commensurate with her importance in the British Commonwealth of Nations. The responsibility for providing such protection . . . must necessarily devolve largely on the Canadian navy and any consideration of the means whereby this may be achieved must of necessity take into account the growing influence of air on all naval operations.[73]

Lay went so far as to suggest that a "high proportion of aircraft carriers should be included in any present or future planning for the Royal Canadian Navy if it [the navy] is to justify its existence."[74] Lay proposed that ten aircraft carriers of all types were required in order to meet the commitments outlined.

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[72]David Syrett and W. A. B. Douglas, "The 'North Atlantic Triangle' in Disarray: Closing the Greenland Air Gap, 1942-43," p. 35.

[73]Acting-Captain Lay's "Report on the Formation of a Royal Canadian Naval Air Service," p. 8. Although Lay couched his argument in terms of Imperial Defence the tone of the document suggests that this was of secondary importance to the defence of Canadian interests.

[74]Ibid., pp. 8-9.

In light of the aforementioned factors Lay suggested that the Canadian government take the necessary steps to establish a naval air service as soon as possible. Time was crucial in Lay's opinion. The time required to train the necessary personnel (both flying and ground) and build the ground facilities necessitated an early decision on behalf of the Canadian government. Lay was fully aware of the fact that the longer Canada delayed its decision the more difficult it would become to establish a naval air service. The war had loosened the purse strings and the time was propitious for the Canadian navy to branch out into naval aviation.

There were three possible forms the Royal Canadian Naval Air Service could take:

> (a) It [could] be modelled principally on the organization of the Fleet Air Arm with certain modifications.
>
> (b) It [could] be modelled principally on the organization of the United States Naval Air Service with certain modifications.
>
> (c) It [could] be a joint Royal Canadian Navy-Royal Canadian Air Force commitment with the [latter] providing a high percentage of the air personnel and maintenance facilities.[75]

The first alternative was the obvious choice for a number of reasons, not the least of which included similarities in education, tradition, and training. The Royal Canadian Navy had from its inception been modelled on the Royal Navy and shared common aims and policy. Thus, for this "reason of policy alone," Lay argued "it appears most desirable that the Royal Canadian Naval Air Service should be modelled on the Fleet Air Arm

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[75]Ibid., p. 14.

. . . so that the two services would be complementary."[76]

He rejected the second option for two main reasons. Firstly, the United States Navy had no specialist observers and the ground personnel were very different from those in the Fleet Air Arm. This would mean that if Canadian personnel were trained at United States naval air schools, they would not be interchangeable with personnel in the Royal Navy. In addition, it was pointed out that the United States Navy manned and operated shore-based aircraft for coastal patrol duties and any training undertaken in this aspect of naval aviation would be superfluous at this juncture, as the Canadian navy had no intention of establishing a similar organization. Secondly, Lay queried the Americans' willingness to supply technical information and training for Canadian personnel after the cessation of hostilities. He had no such misgivings so far as the Royal Navy was concerned.

Finally, the third alternative was rejected on the grounds of dual control. Nevertheless, it was considered initially because of the time element involved. Lay was of the opinion that complete control could be wrested from the Royal Canadian Air Force in time, in much the same way as the Royal Navy finally regained control of the Fleet Air Arm from the Royal Air Force during the interwar years.[77] In the end, however, Lay rejected the idea of dual control, preferring instead, complete control by the parent naval service. For reasons of efficiency, training, and cooperation with other naval air services he proposed that the Canadian naval air service be modelled on the Fleet Air Arm. It should be pointed out, that in a sense dual control would still exist.

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[76]Ibid.

[77]Ibid., p. 17.

Lay was advocating that the Royal Canadian Navy have complete control in the manning and operating of carrier-based aircraft. However, the Royal Canadian Air Force would maintain control over shore-based aircraft employed in coastal patrol and reconnaissance duties.

In view of the evidence available to Canadian naval authorities, regarding the problems inherent in dual control, Stuart Soward has questioned why the Royal Canadian Navy chose to restrict itself to carrier-based aviation.[78] Soward has argued that no justification was given for that decision. Nevertheless it is possible to piece together an explanation from the existing documents. Lay was fully aware of possible opposition to the navy's attempt to establish a separate naval air service. In his report, he outlined the arguments that the air force might use to counter the navy's plans. Included in the list was "duplication in design, supply, training and maintenance,"[79] as well as the concept that air was ubiquitous and should therefore devolve to air force control. To ensure clear sailing for the navy's plans it was essential to assure the air force that the navy had no intention of establishing a shore-based organization. It would also have to be shown that aircraft carriers were an integral part of any fleet, and further that they could provide air support for convoys beyond the range of shore-based aircraft. The report also suggested that while control of shore-based aircraft would remain under the Air Force's control it might be possible in the near future for the navy to take over some of the Royal Canadian Air Force stations, in much the same

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[78]See Stewart Soward, "Canadian Naval Aviation, 1915-69," pp. 273-74.

[79]Lay's "Report on the Formation of a Royal Canadian Naval Air Service," p. 28.

way that the Royal Navy had acquired Royal Air Force stations.[80]

Stuart Soward has only hinted at the reasoning behind carrier-based aviation, when he cites expediency as a factor. In fact time was a crucial factor. But even time is only part of the reason. There were two other significant factors involved. Firstly, the Royal Canadian Navy had only a small number of trained air personnel. The number of officers who were serving with the Fleet Air Arm and/or undergoing training, consisted of:

> Twenty-eight pilots, eight observers, ten fighter direction officers, twelve air radio officers, and six medical officers.[81]

In addition there were nineteen officers who were serving in the Royal Naval Volunteer Reserve (Air) branch who had recently transferred to the Royal Canadian Volunteer Reserve.[82] These figures did not take into account the fifty-five officers who had been approved for training with the Fleet Air Arm. Despite the number of trainees, the small nucleus of trained personnel was not large enough for the Canadian navy to even consider manning and operating shore-based aircraft in addition to carrier-based aircraft.

Secondly, the recommendations of the Joint Royal Canadian Navy-Royal Canadian Air Force Committee which was appointed by the Cabinet War Committee on September 8, 1943, to evaluate the navy's proposals provides further insight into the

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[80]Ibid., p. 18.

[81]Ibid., p. 26.

[82]Ibid.

decision.[83] The Cabinet War Committee finally agreed to lend "additional personnel to the Royal Navy for Combined Operations, including crews for three flotillas of landing craft, and also to man one or two cruisers and two fleet destroyers,"[84] provided that no additional manpower was required beyond that already allocated to the Royal Canadian Navy. The acquisition of aircraft carriers, however, was postponed pending further investigation by the joint Navy-Air Force Committee. The Committee which consisted of the following officers: K. M. Guithrie, Air Commodore, Royal Canadian Air Force (Chairman); W. B. Creery, Captain, Assistant Chief of the Naval Staff, Royal Canadian Navy; A. P. Campbell, Group Captain, Royal Canadian Air Force; and J. S. Stead, Staff Officer (Air), Royal Canadian Navy, tabled their report to their respective service headquarters on October 12, 1943.[85] The Committee recommended the following:

> (a) That the Royal Canadian Navy acquire and operate aircraft carriers; it being understood that the intention is to acquire, in the first instance, two escort carriers;
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> (b) That, for the present, the air units on any aircraft carriers acquired by the [navy] should be manned and equipped by the Royal Canadian Navy; with assistance as necessary by the Fleet Air Arm but that the

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[83]Cabinet War Committee Minutes, September 8, 1943, N.S. 8020-1 (2) as cited in Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 92. The Cabinet War Committee was at that time evaluating a request from the Admiralty for assistance with its manpower shortage. The subject originally came up for discussion at the Quebec Conference which was held in Château Frontenac from August 11-August 24, 1943.

[84]Ibid., p. 91.

[85]"Joint Royal Canadian Navy-Royal Canadian Air Force Committee on the Acquisition and Operation of Aircraft Carriers by the Royal Canadian Navy," dated October 12, 1943, R.C.N. M.S. 1084-1-3, R.C.A.F. S. 19-7-63, RG 24, 83-84/167, box 575, file 1700-913, Part A, P.A.C. W. B. Creery was appointed Assistant Chief of the Naval Staff on June 1, 1943, as a result of the reorganization of Naval Service Headquarters. J. S. Stead was appointed Staff Officer (Air) in September 1943. See Stuart Soward, "Canadian Naval Aviation, 1915-69," n:6, p. 361.

[navy] should not set up any shore establishments in Canada for carrier-borne air units.

(c) That the Royal Canadian Navy should not recruit, in Canada, personnel expressly for naval air duties, but any personnel required for these duties should be selected from personnel then serving in the [navy];

(d) That training of Royal Canadian Navy aircrew personnel in Canada should be included within the Fleet Air Arm quota of the British Commonwealth Air Training Plan;

(e) That the question of further development of a Royal Canadian Navy Fleet Air Arm [sic] should be considered at some future date in light of subsequent developments.[86]

The discussions leading up to the recommendations were heated, with the naval members having to defend their proposals continually and/or stave off attempts by the Air Force to assume control of carrier-borne personnel, aircraft and ancillary services if and when a naval air service was established.[87] Given the Air Force's opposition it seems unlikely that if Canadian naval authorities had been so bold as to claim responsibility for both shore and shipborne aviation that the Royal Canadian Navy would have been able to establish a naval air service in any form.

Lay's report was well received at Naval Service Headquarters. Indeed even prior to Lay's tabling his report the Director of Plans in a memorandum to the Assistant Chief of the Naval Staff, dated July 29, 1943, outlined the navy's requirements for the

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[86]Ibid.

[87]Ibid. To counter the Air Force the naval members had to point out that the navy planned to use Fleet Air Arm training facilities and shore establishments. In fact the Fleet Air Arm (Royal Navy) was to provide the whole basic organization for the Royal Canadian Navy. Finally, it was pointed out that it was unlikely that the carriers would be operated from Canadian bases during the war and therefore the Royal Canadian Air Force would not be required to provide permanent shore facilities.

war against Japan and for the post-war fleet. The memorandum stated that the ". . . policy concerning the number and types of ships that Canada should acquire were to be based on their post-war usefulness. . . . Accordingly the [navy] should begin acquiring cruisers, fleet destroyers, and possibly aircraft carriers."[88] The memorandum mirrored the view held by Percy W. Nelles, Chief of the Naval Staff, and he pursued the recommendation at the upcoming Quebec Conference. Nelles' interest in naval aviation dates from 1934 when the Royal Navy first suggested converting merchant ships into small aircraft carriers. Although "Commodore P. W. Nelles, [then] Chief of the Naval Staff, expressed great interest in the design, nothing came of the idea."[89]

On the first day of the Quebec Conference the Chief of the Naval Staff broached the subject of establishing a Canadian naval air service.[90] Nelles said that from a service point of view (and without committing the Canadian government) his problem was "to see that the Royal Canadian Navy did not finish the war as a small ship

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[88]Director of Plans to Assistant Chief of the Naval Staff, dated July 29, 1943, N.S. 1655-2 (1) as cited in Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 90.

[89]Stuart Soward, "Canadian Naval Aviation, 1915-69," p. 272. These aircraft carriers of 10,000 tons or less were to be employed in trade protection duties. The idea was shelved, however, owing to financial constraints. See Geoffrey Till, Air Power and the Royal Navy 1914-1945, pp. 60-84.

[90]The following officers were in attendance: Admiral of the Fleet, Sir Dudley Pound, First Sea Lord; Vice-Admiral, The Lord Louis Mountbatten, Chief of Combined Operations; Captain C. E. Lambe, Royal Navy, Director of Plans; Captain R. H. V. Buxton, Royal Navy, Combined Operations; Commander A. D. Courage, Royal Navy, Combined Operations; Vice-Admiral P. W. Nelles, Chief of the Naval Staff, Canada; Captain H. G. DeWolf, Royal Canadian Navy; Paymaster Captain R. V. Brockman, Royal Navy, Secretary to the First Sea Lord.

navy entirely."[91] He envisaged "a post-war fleet consisting of five cruisers, two light fleet carriers, and three destroyer flotillas."[92] Nelles' proposal for establishing a naval air service met with a lukewarm response. The First Sea Lord pointed out the heavy overheads involved and suggested as a possible alternative, that the Canadian navy provide the crews to man these carriers while the Royal Navy furnished the flying and maintenance personnel. Though there may have been heavy commitments involved in establishing a naval air service the documents suggest that the First Sea Lord was less than forthright in his reasons for opposing such a plan. Prior to the Quebec Conference the First Sea Lord had been advised by both the Assistant Chief of the Naval Staff (Air), Rear-Admiral R. H. Portal and the Director of Plans, Captain C. E. Lambe, that, in their opinion, the creation of a Royal Canadian Naval Air Service would be a waste of effort. In the words of the Director of Plans, "in our present parlous manpower state . . . avoiding the 'overheads' of a new Fleet Air Arm would give us quicker relief."[93] He further stressed the need for the Dominions to maintain a balanced fleet consisting of cruisers and destroyers.[94] The Assistant Chief of the Naval Staff (Air) concurred with this appreciation. He did, however, take it one step further with an eye to post-war considerations. In his opinion it seemed unlikely that:

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[91]Minutes of meeting held in Château Frontenac, August 11, 1943, DHist 81/520/1270 Conferences 1920-1945, vol. II.

[92]Ibid. Nelles' appreciation was based on the Director of Plans memorandum dated July 29, 1943.

[93]Director of Plans to First Sea Lord dated August 7, 1943, Admiralty 205/31 (hereafter referred to as ADM). Also at DHist under same reference.

[94]Ibid.

> Ships like escort carriers and the earlier light fleet [carriers] have a permanent future. One sees probably the later light fleet [carriers] going to reserve and training services, and only the fleet carriers remaining in commission. Presumably the Canadians will never be able to support a fleet carrier in peace time and their air organization would consequently become redundant . . .[95]

These officers as well as the First Sea Lord were more interested in alleviating the Royal Navy's manpower shortage (estimated at 20,000 men) than in assisting the Canadian navy in this particular venture. If, however, Canadian personnel could be found to man one or two carriers in the Royal Navy the Admiralty might look favourably on such a proposal.

Undeterred by the First Sea Lord's response, Nelles continued to press for recognition of Canadian post-war plans. In the meantime, however, it was suggested, "that Nelles wait for Acting-Captain Lay's report before he took any further steps with regard to a fleet air arm for the Royal Canadian Navy."[96] W. A. B. Douglas has suggested that "it might be reasonable to assume that pressure for expansion emanated from the Royal Navy."[97] A reading of the documents suggests otherwise insofar as naval aviation was concerned. The subject of establishing a Canadian naval air service had been pursued by Canadian naval authorities from the outset. At the Quebec Conference the matter was not even considered (by the Admiralty representatives at

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[95]Assistant Chief of the Naval Staff (Air) to the First Sea Lord, dated August 3, 1943, ADM 205/31; First Lord and Deputy First Sea Lord to First Sea Lord, dated Aug. 24, 1943, ADM 1/13044.

[96]Minutes of meeting held in Château Frontenac, August 11, 1943, DHist 81/520/1270 Conferences 1920-1945, vol. II.

[97]W. A. B. Douglas, "Conflict and Innovation in the Royal Canadian Navy, 1939-1945," p. 210.

least), to be part of the agenda. Indeed, Admiral Nelles broached the subject, forcing the British authorities to respond.

For political reasons, however, it was desirable to frame the request for assistance in the form of a personal request from Prime Minister Winston S. Churchill to Prime Minister Mackenzie King on behalf of the First Sea Lord. The ploy worked, and it was agreed to provide personnel for:

> Two fleet destroyers by December, three flotillas of landing craft (a total of 350 men) and one beach commando and beach signal unit (1,000 men) by the spring of 1944, and to provide 120 candidates for commissioned warrant rank to be trained in the United Kingdom, then loaned to the Royal Navy. All this was in addition to taking over two new light cruisers when they were completed in 1944.[98]

This was possible because of the delays in the Canadian naval construction programme. The Chief of the Naval Staff had pointed out that "only 17 to 23 frigates and a certain number of corvettes had been completed instead of the 33 frigates which had been hoped for."[99] The fact that rendering assistance to the Royal Navy did not place undo strain on Canadian manpower reserves played a crucial role in allowing the Canadian navy to branch out into the field of naval aviation.

The joint Royal Canadian Navy-Royal Canadian Air Force Committee report was the subject of discussion at the Cabinet War Committee meeting on October 12, 1943. The Chief of the Naval Staff and the Minister for Naval Services pleaded once again for a separate naval air branch, but to no avail. Mackenzie King who chaired the

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[98]Ibid., p. 212.

[99]Minutes of meeting in Château Frontenac, August 11, 1943, DHist 81/520/1270 conferences 1920-1945, vol. II.

meeting expressed concern over the fact that the report made no mention of the costs involved and provided no indication as to where the necessary personnel were to be found to man the carriers.[100] He further stressed that:

> If new undertakings, such as the present one, involving outlays were regarded as imperative, then corresponding reductions must be made in other directions. Canada had now reached the limit of her financial resources and the Minister of Finance would be unable to include any increases in his budget for the coming year.[101]

At this juncture, the Chief of the Naval Staff informed the Cabinet War Committee that, "the Naval Staff could not undertake to reduce anti-submarine vessel construction,"[102] in the present programme. The Cabinet War Committee then recommended to the Minister for Naval Services that he undertake a thorough study of the costs and manpower requirements involved in establishing a naval air service and report to the Cabinet War Committee as soon as possible.

A new situation arose late in October 1943 which paved the way, to a large extent, for the Royal Canadian Navy to begin manning an escort carrier. On October 30, 1943, the Admiralty announced its intention to cut down its escort-building programme. This announcement was followed early in November by a personal message from Admiral A. B. Cunningham (who had replaced Sir Dudley Pound) as First Sea Lord, to the Chief of the Naval Staff asking for additional assistance with manning

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[100]Cabinet War Committee minutes, October 12, 1943, document 633, DHist MG 26/J4.

[101]Ibid.

[102]Ibid.

beyond that which was agreed to at Quebec.[103] Before a decision could be reached, however, it was decided to dispatch Captain W. B. Creery, the Assistant Chief of the Naval Staff, to London to discuss the matter with Admiralty officials. Subsequent to those discussions it was agreed that Canada would follow Britain's lead in reducing frigate and corvette construction programmes in order to release personnel for manning Royal Navy vessels. The "specific new proposals now made were that Canada should take over from the Admiralty ten frigates and two [escort carriers]."[104] Decision "regarding the escort carriers had to await adoption by the Cabinet of a definite naval air policy, but there was no difficulty in securing approval for the acquisition of the frigates."[105] The Admiralty offer of two escort carriers came about for several reasons. Firstly, the acute manpower shortage experienced by the Royal Navy coupled with the knowledge that the Royal Canadian Navy "was not prepared to unbalance their [fleet] by limiting it to small vessels."[106] Secondly, pressure from Canadian naval authorities and a firm offer of assistance in the manning of two escort carriers, carried the day. Prior to Acting-Captain Lay tabling his report, he had the opportunity to discuss with Admiralty officials the creation of a Canadian naval air service and how this would fit with Admiralty plans during the present war.

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[103]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 92.

[104]Report by Captain W. B. Creery, dated December 12, 1943, N.S., M.S. 1017-10-22 (1) as cited in Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 92.

[105]Ibid.

[106]Report by Captain H. Hickling, Royal Navy, dated July 1, 1943, ADM 205/31, DHist.

Lay was informed by Rear Admiral H. T. C. Walker, Director of Personnel Services that:

> The manning situation in the Royal Navy was extremely critical and would continue to be so until the end of the war. [He further stressed] that anything Canada could do in the immediate provision of personnel for any type of ship would be invaluable.[107]

Lay then informed the officers in attendance that if the Royal Canadian Navy agreed to man both escort carriers (excluding flying personnel) and cruisers that both services would accrue certain advantages. It was then pointed out by Admiral Walker "that escort carriers were being partially manned by T-124X personnel (merchant navy) and [he] considered this a disadvantage."[108] Lay left the meeting with the impression that "the Royal Navy personnel situation was so acute that the Admiralty would agree to any concrete proposal which would provide any assistance."[109] Obviously the lesson was not lost on Canadian naval authorities. As a result of the aforementioned discussions (including the Quebec Conference) both navies secured their respective goals. The Royal Navy was able to reduce their severe manpower shortage by obtaining assistance from the Canadian navy. On the other hand, the Royal Canadian Navy realized several goals with one stroke. Firstly, Naval Service Headquarters was able to get more men to

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[107]Memorandum from Acting-Captain Lay to the Secretary of the Naval Board, dated September 1, 1943, RG 24, 83-84/167, Box 575, file 1700-913, Part A, P.A.C. The following officers were in attendance: Rear-Admiral H. T. C. Walker, Royal Navy, Director of Personnel Services; Captain R. K. Dickson, Royal Navy, Deputy Director of Plans; Captain B. L. Moore, Royal Navy, Assistant Director of Plans (Air); Commander F. A. Price, Royal Canadian Naval Volunteer Reserve, Senior Canadian Naval Officer (London).

[108]Ibid.

[109]Ibid.

sea. At this time approximately two-thirds of the navy (34,000 men) was stationed ashore either undergoing training (awaiting the commissioning of ships) or employed ashore. Secondly, and more importantly, these agreements facilitated the expansion of the Royal Canadian Navy from a small-ship navy to a balanced fleet with the acquisition of cruisers, fleet destroyers, and aircraft carriers. Thus the manpower shortage served to expedite the Canadian navy's drive to acquire a naval air service. Although Cabinet approval for a Royal Canadian Naval Air Service had yet to be granted, permission was given for Acting-Captain Lay, on October 15, 1943, to take command along with the necessary ratings of H.M.S. *Nabob*, which was undergoing conversion to Royal Navy standards.[110]

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[110]Rear-Admiral H. Nelson Lay, Memoirs of a Mariner, p. 152; Naval message from Admiralty to Naval Service Headquarters, dated October 15, 1943, ADM 1/13044.

CHAPTER FOUR

BATTLE HONOURS WON

> The value of carrier-borne aircraft in the protection of trade has been fully demonstrated.
>
> --Commander-in-Chief, Western Approaches, 1944

H.M.S. *Nabob* (C.V.E. 41--the former U.S.S. *Edisto Bay)*, the first carrier to be manned by Canadian personnel, was commissioned into the Royal Navy on "September 7, 1943, as she lay alongside the fitting-out wharf of the Seattle-Tacoma Shipbuilding Company at Seattle, Washington."[1] On the date of the commissioning her specifications were:

> 15,390 tons displacement, a length of 495' 8" overall, breadth at flight deck 107' 2" and a draft of 25' 5". Maximum speed was 18 knots. Armament consisted of two-5 inch 38 calibre dual purpose guns, with 40 mm Bofors and 20 mm Oerlikons for anti-aircraft defence. From 12 to 18 aircraft depending on type, could be operated.[2]

Having completed with stores, and manned by a skeleton Royal Navy crew, *Nabob* steamed to Vancouver, British Columbia, where the Burrard Drydock and Shipbuilding Company, Limited, would modify her to meet Royal Navy standards prior to entering operational service.

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[1]Brief History of H.M.S. *Nabob* prepared by the Naval Historical Section, Naval Headquarters, dated June 9, 1960, DHist 8000, H.M.S. *Nabob*.

[2]Charles Dillon, "H.M.S. *Nabob*," The Bulletin (Victoria: Maritime Museum of British Columbia, no. 25, June 1974), p. 2.

The origins of the escort carrier, like those of the merchant aircraft carrier and the CAM ships, was a response to U-boat pack tactics and German long-range air reconnaissance of 1940-1941. By December 1941, the Royal Navy had four armoured and four unarmoured aircraft carriers, and only one more of each was expected to be completed by 1946. In order to provide continuous air support not only for the convoys but combined operations as well, it was estimated that the Royal Navy required 34 additional carriers as soon as possible. To make up the deficiencies it would be necessary to convert existing merchant ships built or building. Failing that it would be necessary to acquire the ships through Lend-Lease arrangements with the United States.[3] The escort carriers built by American shipyards were either converted merchant ships or were completed as aircraft carriers from the keel up. Such was the case with H.M.S. *Nabob* and *Puncher*.[4]The slim lines and the top-heavy look of the flight deck was typical of all escort carriers regardless of class. The design was, however, both utilitarian and economic. There were some important changes made to British escort carriers throughout the war which deserve mention at this point.

The greatest source of contention between the United States Navy and the Royal Navy was the Admiralty policy of modifying the escort carriers beyond what had been done in American shipbuilding yards. Following the loss of H.M.S. *Avenger* and H.M.S. *Dasher* (the latter, "was destroyed by an explosion below decks as 891 Squadrons

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[3]Naval Staff History, The Defeat of the Enemy Attack on Shipping 1939-1945, appendix no. 4, p. 291.

[4]Charles Dillon, "H.M.S. *Nabob*," p. 2.

Swordfish aircraft were being refuelled, on March 27, 1943),"[5] the Admiralty imposed strict regulations in order to avoid any future mishaps.

The Admiralty Board of Enquiry attributed the explosion to the:

> Igniting of petrol fumes from a leaky valve in the petrol control department, badly sited below a messdeck, by a carelessly dropped cigarette end, and blamed the American safety arrangements, which were, they said "by our standards practically non-existent." American experts blamed British inexperience with the fuel safety arrangement, in which $C0_2$ was pumped through the system to purge it. But the obvious presence of persistent and widespread petrol vapour below decks was a feature of these [early] ships well known to those on board, who took it for granted that a torpedo hit would explode the petrol and blow their "floating petrol can" apart instantly. The volatile high-octane was carried in compartments not designed for it. . . . British safety arrangements were based on the "drain-back" principle, the operation of which still left petrol vapour in the system, but no dangerous pools of petrol.[6]

In addition aviation fuel storage was reduced to about a quarter (22,500 gallons) of that originally provided. Also "the standard fleet-carrier system of separate cylindrical gasoline tanks [was] fitted"[7] into the escort carriers.

Other modifications included adding another 1,200 to 2,000 tons of ballast to increase stability. The Admiralty did not countenance the American method of achieving stability "by pumping salt water into empty fuel tanks."[8]

In addition to the extra ballast added to each escort carrier,

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[5]Ibid., p. 87.

[6]Ibid., p. 60.

[7]Norman Friedman, U.S. Aircraft Carriers, p. 177.

[8]Kenneth Poolman, Escort Carrier 1941-1945: An Account of British Escort Carriers in Trade Protection, p. 87.

> buoyancy drums were fitted over the ballast in the wing deep tanks to reduce the list after a torpedo hit; the Admiralty also originated the system of bomb-magazine wing bulkheads, keeping weapons more than ten to fifteen feet from the ships side.[9]

Finally, American-built escort carriers had their flight decks lengthened by 42 feet to operate British aircraft "which could not use the American catapults and perhaps, like the Swordfish, needed a longer take-off run when fully loaded than the original deck provided."[10]

In an effort to reduce delays in the conversion programme the Canadian government had offered "to do the 'anglicizing' modifications at their own expense, and placed the work with the shipbuilding firm of Burrard [Drydock and Shipbuilding Company, Limited] at Vancouver."[11] A commercial wharf and goods shed were converted:

> In two months to a dockyard run by a most miscellaneous horde of men and women, only two per cent of whom had previously done ship work. But the 150 alterations specified were standardized, and each man or woman was taught one job.[12]

The aforementioned alterations carried out by Burrards did not include the modification

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[9]Norman Friedman, U.S. Aircraft Carriers, p. 177.

[10]Kenneth Poolman, Escort Carriers 1941-1945: An Account of British Escort Carriers in Trade Protection, p. 88.

[11]Ibid.

[12]Ibid., pp. 88-89. Their first job was H.M.S. *Khedive*, transferred to the Royal Navy on August 25, 1943, and was followed by thirteen other escort carriers, *Nabob, Shah, Patroller, Premier, Ranee, Thane, Speaker, Queen, Ruler, Arbiter, Smiter, Puncher* and *Reaper*, in that order, the last named arriving at Vancouver for modification in February 1944.

of trade protection escort carriers into assault carriers. The extensive work involved in this conversion, which included the installation of an operational telephone system, a new briefing room, an army plot, extra cabins and bunks, was done the following spring, in April 1944, in the United Kingdom by the Caledon Shipbuilding Company at Dundee.[13]

By December 28, 1943, the Canadian portion of H.M.S. *Nabob*'s complement "consisting of seventeen Royal Canadian Navy officers and 223 ratings had transferred from the temporary accommodation ship, H.M.S. *Thane*, to *Nabob*."[14] Early in January, *Nabob* embarked fuel, ammunition and stores in preparation for her working up trials scheduled for January 12, 1944. On January 24, 1944, *Nabob* paid a short visit to Esquimalt before resuming her trials. The following day *Nabob* resumed exercises in the Strait of Georgia. This was the day chosen to conduct flying-on exercises for the twelve Grumann Avenger torpedo bombers of the Royal Navy's 805 Squadron.[15] Preparations were being made to land on the first aircraft "when at 1526, approximately two hours before high water, Nabob took ground near the mouth of the Fraser River while steaming at full speed into the wind."[16] The aircraft was hurriedly waved off, and efforts were made to refloat the ship by going full astern for a period of five to ten

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[13]Ibid., p. 89.

[14]"Brief History of H.M.S. *Nabob*," p. 4, DHist 8000, H.M.S. *Nabob*.

[15]Squadron 805 was originally assigned to H.M.S. *Nabob* but as a result of *Nabob*'s grounding the squadron was reassigned.

[16]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 24.

minutes, but to no avail.[17] A number of vessels were soon on the scene to render assistance, including another escort carrier, H.M.S. *Ranee*, and H.M.C. Ships *Armentieres* and *Haro*. The first attempt to pull *Nabob* off the sandbank was made at high water on the morning of January 26, with *Ranee* secured astern, *Armentieres* on the starboard quarter, and *Haro* on the port.[18] The operation failed. A second attempt was made at 1810 of the same day after *Nabob* had been lightened by some 300 tons of oil fuel and 700 tons of salt water from the fuel tanks, had been pumped out. It too failed.

After two days, *Nabob* had been lightened by some 3,202 tons; dredging operations had been completed and with the assistance of two tugs she was finally refloated. Once clear of the sandbank *Nabob* shaped a course under her own power for Burrard Drydock located in North Vancouver for an examination of her hull. Fortunately, no damage had been sustained as a result of the grounding, and the re-embarkation of stores began again. *Nabob* left the Burrard drydock on February 1, 1944, resumed "work-ups" for the next few days, and on February 7, 1944, sailed for San Francisco and active duty.[19]

Upon arrival at San Francisco the Royal Navy's 852 Squadron of twelve

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[17]Interview conducted with Rear-Admiral Charles Dillon (Retired) to author, June 19, 1989. There is confusion in the literature as to the actual sequence of events. Rear-Admiral H. Nelson Lay, has stated in his memoirs, that all but one of the squadron's aircraft had landed on prior to the ship grounding. This version does not, however, correspond to other accounts of the same event, for example, Charles Dillon's article and his recollections.

[18]"Brief History of H.M.S. *Nabob,*" pp. 5-6, DHist 8000, H.M.S. *Nabob.*

[19]Sailing Orders, dated February 5, 1944, RG 24, vol. 11972, file 262-2, P.A.C.

Avengers was embarked by crane. Aircrew and maintenance personnel also joined at that time. *Nabob* was now fully manned. "Personnel in *Nabob*, with squadron embarked, consisted of approximately 504 Royal Canadian Navy, 327 Royal Navy, and nine Royal New Zealand Navy."[20] On February 15, 1944, *Nabob* set sail for San Diego the next port of call. The destroyer U.S.S. *Ballard* took station on *Nabob* as the plane guard while the United States airship K-115 provided air support for the passage. While en route *Nabob* carried out flying trials. The first day of the exercises was marred by the loss of one aircraft which ditched into the sea after take-off. Fortunately, the airship was quick to respond and dropped an inflatable liferaft for the pilot, who was subsequently picked up by *Ballard*'s motor boat.[21]

Nabob "berthed at the United States Naval Air Station, North Island, San Diego, on February 17, 1944," and for the next three days conducted further exercises before returning to San Diego. On February 21, 1944, *Nabob* received a signal to rendezvous with escort carrier H.M.S. *Empress* and proceed in company to Norfolk, Virginia. However, owing to mechanical difficulties, H.M.S. *Empress* could not undertake the passage and *Nabob* was ordered to proceed independently. Three days out the Halifax-bound frigate H.M.C.S. *New Waterford* joined as plane guard, and the two ships passed through the Panama Canal. On the next leg of the voyage *Nabob* "maintained an anti-submarine patrol as U-boats had been reported in the area, but no contact was made. Having detached *New Waterford* for Halifax," *Nabob* secured in

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[20]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 24.

[21]For this and the following see, "Brief History of H.M.S. *Nabob,*" p. 7, DHist 8000 H.M.S. *Nabob.*

Norfolk, Virginia, on March 8, 1944, for a short refit.

H.M.S. *Nabob* remained at Norfolk Navy Yard from March 8 to March 18, 1944, undergoing much needed repairs, these included repairs to the echo sounder, ammeter on the diesel switchboard and the replacement of the screw which had been whistling--probably due to cavitation. In addition, three damaged Avenger aircraft were replaced by three new aircraft.[22]

While *Nabob* was undergoing repairs, her commanding officer, Acting-Captain H. Nelson Lay, paid a visit to both his administrative authority in Washington, the British Admiralty Maintenance Representative, and to Naval Service Headquarters in Ottawa, in order to rectify certain problems of pay and amenities that were undermining the ship's company's morale.[23] From the date of *Nabob's* commissioning her complement had been mixed company of British and Canadian sailors. The greatest area of friction was the differing scale of victualling between Royal Navy and Royal Canadian Navy standards. The general messing standards in the Royal Navy were considerably lower, both in quality and quantity, a fact which caused morale problems amongst the ship's company. Further compounding the problem was the lack of adequate facilities (recreational, shower, and messdeck space) and problems of overcrowding. In addition, Royal Navy ratings were paid at a lower rate than their counterparts in the Canadian navy. All of these factors reduced both the efficiency and

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[22]Report of Proceedings--H.M.S. *Nabob,* March 9, 1944-April 3, 1944, RG 24, vol. 11304, file CS 159-10-22, P.A.C.

[23]Ibid. Lay visited the aforementioned authorities between March 13-March 16, 1944.

morale.[24] Acting-Captain Lay had been requesting assistance on this matter since December 1943, but to no avail. He therefore recommended that:

> (a) Victualling for the whole ship should be based on the Royal Canadian Navy scale; if necessary becoming a [Canadian] commitment.
>
> (b) That all allowances for Royal Canadian Navy personnel should be at Canadian rates and not as laid down in Naval Service Headquarters signal 1616312 January.
>
> (c) That all Royal Navy ratings onboard should receive the difference of pay between Royal Navy and Royal Canadian Navy rates, if necessary this being a commitment of the [Canadian] navy. . . .[25]

Lay also requested that the ship be known as H.M.C.S. *Nabob*. This last recommendation was not acted upon at this time.

The Admiralty was quite anxious to resolve the problem and the Director of Personnel Services, Royal Navy, observed that "if Canada had not come to the rescue over *Nabob* and *Puncher*, the manning situation would have been far more difficult. I hope, therefore that a way can be found to get round the messing and pay difficulties."[26] The Canadian Cabinet had approved the manning of both H.M.S. *Nabob* and *Puncher* on January 12, 1944.

There were those who felt that if the situation was not rectified the whole project of Canadians manning escort carriers might have to be abandoned. As a result

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[24]Report on Living Conditions, Morale, of Royal Canadian Navy Personnel in H.M.S. *Nabob,* dated March 8, 1944, RG 24, vol. 11304, file CS 159-10-22, P.A.C.; ADM 1/16045.

[25]Ibid.

[26]Minute Sheet no. 4, Director of Personnel Services, Royal Navy, dated March 20, 1944, ADM 1/16045.

of Lay's efforts and ongoing negotiations between Naval Service Headquarters, the British Admiralty Maintenance Representative and the Admiralty, a signal was sent on April 6, 1944, stating that:

> (a) All personnel other than Fleet Air Arm to be paid pay and allowances at Canadian rates. Royal Navy personnel regarded on loan to Royal Canadian Navy.
>
> (b) Scale and system of victualling in *Nabob* as in Royal Canadian Navy.
>
> (c) (a) and (b) to be charged to Royal Canadian Navy effective March 15, 1944.[27]

Nabob sailed for New York on March 18, 1944, with a much more contented ship's company as a result of the agreement. Once again 852 Squadron was given the opportunity to conduct flying exercises and anti-submarine patrols. *Nabob* secured alongside No. 13 Pier at Staten Island on March 19, 1944. At Staten Island, 852 Squadron's twelve aircraft were struck down to the hangar to make room for the forty-five P.51 Mustang fighters which were embarked and lashed securely on the flight deck for transportation to Great Britain.[28] *Nabob* sailed on March 23, 1944, taking a position in convoy UT 10.[29]

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[27]Naval Message from British Admiralty Maintenance Representative to *Nabob* (repeated) Admiralty, Naval Service Headquarters, Naval Member Canadian Staff, dated April 6, 1944, RG 24, vol. 11963, file MS-69, P.A.C. The desertion of French Canadian ratings at Norfolk, Virginia in all likelihood strengthened Lay's argument. See Report on Details of Royal Navy-Royal Canadian Administration in H.M.S. *Nabob,* dated April 10, 1944, ADM 1/16045.

[28]Report of Proceedings--H.M.S. *Nabob,* March 9, 1944-April 3, 1944, RG 24, vol. 11304, file CS 159-10-22, P.A.C.

[29]Convoy UT 10 was a military convoy from the United States to the United Kingdom.

The convoy consisted of 26 ships, the Senior Officer of the escort sailing in the United States cruiser *Cincinnati* (Captain D. F. Worth, United States Navy, Commander Task Force 68). The remainder of the task force consisted of twelve destroyers and one escort oiler, U.S.S. *Cheming*. With *Nabob*'s squadron struck below she was non-operational for the duration of the passage and took up a position as the second ship in the sixth column, number 62 in the convoy.[30] The passage was uneventful except for two days when a gale forced the convoy to alter course for a short period to put the wind 60° degrees on the port bow. In addition, several asdic and high frequency/direction finding contacts were obtained by the escorts but no U-boats were discovered.

The light on Tory Island was sighted on April 3, 1944, but in the approaches to the North Channel visibility became very poor. Consequently all navigation was carried out by radar and echo sounder. *Nabob* and the six ships parted company and at 2040 the carrier anchored south of Bar Light Vessel. Early the next morning an attempt was made to enter the harbour but owing to fog *Nabob* had to anchor again.[31] On April 4, *Nabob* weighed anchor and proceeded to anchorage L.3 in the Mersey River at the entrance to Gladstone Dock, Liverpool.[32] The following day *Nabob* weighed anchor and with the assistance of tugs secured alongside Gladstone Dock,

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[30]Hereafter numbers following the name of a merchant ship or warship indicate its position in the convoy (for example, sixth column, second ship = number 62).

[31]Report of Proceedings--H.M.S. *Nabob,* dated March 9, 1944-April 3, 1944, RG 24, vol. 11304, file CS 159-10-22, P.A.C.

[32]Report of Proceedings--H.M.S. *Nabob,* April 4, 1944-May 31, 1944, RG 24, vol. 11304, file CS 159-10-22, P.A.C.

where the American aircraft and thirty passengers disembarked. On April 6, 1944, *Nabob* undocked from Liverpool and proceeded to Greenock. During passage seven Avengers from 852 Squadron were launched and flown to the Royal Naval Air Station, at Machrihanish. The remainder of the squadron's aircraft were catapulted off while *Nabob* was anchored at the Tail-of-the-Bank, Greenock, on April 10-11, 1944, and flew to Machrihanish. The non-flying personnel of the squadron had been discharged to the naval air station three days previously.[33] *Nabob* returned to Liverpool for her lengthy refit on April 17, 1944, and arrived on the following day.

The work undertaken at Liverpool by the contractors Messrs. Harland and Woolf included:

(a) Completion of flight deck lighting

(b) Completion of wireless/telegraphy and radar installations and aircraft direction room

(c) Installation of High Frequency/Direction Finding [equipment]

(d) Replacing of all Mark IV mountings oerlikon on forecastle and flight deck (20 in number) by 14 pairs of power-worked oerlikons

(e) Replacement of six Mark IV mountings oerlikon on lower sponsons by Mark VII mountings

(f) Completion of darken[ed] ship arrangements.[34]

While *Nabob* was undergoing her refit, every opportunity was taken to send officers and ratings ashore for courses. This encompassed aircraft recognition at H.M.S.

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[33]Ibid.

[34]Ibid.

Queen Charlotte, damage control, fire fighting, fighter direction (at Yeovilton), and a plotting course (at H.M.S. *Dryad)*. In addition, the personnel of 852 Squadron carried out courses and exercises at the Royal Naval Air Station, Machrihanish. *Nabob* was also paid several ceremonial visits, including one by Vice-Admiral P. W. Nelles, Senior Canadian Flag Officer (Overseas) on April 21, 1944.[35] Shortly before *Nabob* completed her refit Admiral Sir Max Horton, Commander-in-Chief, Western Approaches, paid an informal visit to the ship.

The period between June 9, 1944-June 16, 1944, was taken up by embarking stores, ammunition, fuelling and cleaning up as the ship was nearing completion. On June 17, 1944, having completed her refit (eight days behind schedule) *Nabob* prepared for an intensive work-up programme which lasted until July 30, 1944. Most of the work-ups were conducted from the Clyde and Belfast, Northern Ireland, and included the following exercises: accelerator (catapult) trials, flying exercises, high angle 40 mm. bofors shoot, High Frequency/Direction Finding calibration, Wireless/Telegraphy tuning and navigation exercises.[36] On June 26, 1944, 852 Squadron was embarked consisting of 11 Avengers and 4 Wildcat (American) fighters.[37] The weather forced the cancellation of flying exercises on one of the four days available to the squadron.

From July 1, 1944 until July 30, 1944, *Nabob* continued her work-up

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[35]Vice-Admiral P. W. Nelles was replaced by Vice-Admiral G. L. Jones as Chief of the Naval Staff in January 1944.

[36]Report of Proceedings--H.M.S. *Nabob,* dated June 1, 1944-June 30, 1944, RG 24, vol. 11304, file CS 159-20-22, P.A.C.

[37]The Wildcat (series FM-1 and FM-2) fighters built by General Motors were known as Martlets prior to 1944 in the Fleet Air Arm. It was not until 1944 that the Royal Navy accepted American names.

programme. During the month of July *Nabob* conducted the following exercises: anti-submarine detection operations with H.M.S. *Philante* (Royal Navy training ship), anti-submarine patrols, high angle 40 mm. bofors shoot, radar calibration, night deck landings and oiling at sea with the frigate H.M.S. *Bamborough Castle*.[38]

Poor weather, however, continued to plague *Nabob*'s programme:

> Out of the 17 nights allocated for night flying the entire programme had to be cancelled on six nights and curtailed on three others. As regards day flying, out of the 18 days allocated [the] full programme took place on only nine days and was curtailed on four.[39]

In addition, *Nabob* was beset with mechanical difficulties which forced a return to port for repairs on two separate occasions. The first interruption occurred on July 8th, when problems with the main feed pump (for the engine) forced a return to Greenock until July 14, 1944. The second problem occurred on July 24th when the main circulating pump began acting up and forced *Nabob* to return to the Naval Air Wharf, Belfast, to effect repairs. *Nabob* was secured alongside for four days until July 28, 1944.

There had been a marked improvement in the ship's morale ever since *Nabob* had left Norfolk, Virginia, but there were still problems. In the Captain's opinion "the squadron and ship's air staff personnel [had] not produced a smooth running organization, and as a result there [had] been too many delays in take-offs, too many

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[38]Report of Proceedings--H.M.S. *Nabob,* dated July 1, 1944-July 31, 1944, RG 24, vol. 11304, file CS 159-10-22, P.A.C.

[39]Ibid.

aircraft unserviceable, and too many failures in armament."[40] Further exacerbating the situation was the high turnover in officers and ratings. In the first six months of *Nabob*'s commission:

> Seventy-one officers exclusive of air squadron personnel joined the ship. The total officer complement was 41 and had already been completely turned over by the substitution of Canadian for British officers.[41]

These frequent changes in personnel did nothing for the morale or the operating efficiency of the ship's company. In July a further 28 ratings (17 Royal Navy and 11 Royal Canadian Navy) were discharged by the Admiralty and Naval Service Headquarters while 16 Royal Navy and 32 Royal Canadian Navy ratings joined the ship. The appointment of a new Commander (Flying), Lieutenant-Commander H. J. H. Stephens (Royal Navy) would, it was hoped, (by the Admiralty and Acting-Captain Lay) address the problems on the air side at least. Lay's impression of the air side was confirmed by the Flag Officer Carrier Training, Vice Admiral Sir Arthur L. St. G. Lyster, who after visiting *Nabob* on July 21, 1944, was able to report to the Admiralty that:

> [He] was not at all satisfied with [the ships company's] progress. [The] state of serviceability of aircraft, functioning of weapons and depth charges were all

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[40]Ibid.,; Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 5, DHist 87/48.

[41]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 2, DHist 87/48.

below an acceptable standard for an operational carrier.[42]

In addition, the gunnery crews were still experiencing problems in laying and training their guns. For example, on July 14, 1944, one oerlikon gunnery crew shot away four wireless aerials during the first round. The oerlikon crews also experienced a power failure just two minutes before the first round was due to commence. As a result, oerlikon firings were layed and trained by hand. The bofors firings were obstructed by ships and aircraft, and certain groups (no. 2 and no. 5) were not able to fire as many rounds as the other groups, although overall, the aiming-off was considered to be satisfactory.[43] As a result of Vice-Admiral Lyster's address to the ship's company and "the appointment of a new Commander (Flying) plus the prospect of action against the enemy, encouraged harder training by the ship's company."[44]

Nabob's training programme ended on July 30, 1944, when she returned to the Tail-of-the-Bank, off Greenock, in accordance with Vice-Admiral Lyster's instructions. *Nabob*, in company with a sister ship,

> H.M.S. *Trumpeter*, left the Scottish anchorage on July 31, 1944 in preparation for operational duties. On passing the boom gate at Scapa Flow both ships joined the Home Fleet and were placed under the administrative orders of the

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[42]Ibid. Vice-Admiral sir Arthur L. St. G. Lyster on July 21, 1944, following his inspection of the ship, had the opportunity to address the ship's company and make his feelings known.

[43]Remarks on Gunnery Practice, July 14, 1944, Report of Proceedings--H.M.S. *Nabob,* July 1, 1944-July 31, 1944, RG 24, vol. 11304, file CS 159-10-22, P.A.C.

[44]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, DHist 87/48.

Rear-Admiral Commanding First Cruiser Squadron . . .[45]

Canadian naval authorities had hoped that *Nabob* would be operating as part of a support group with one of the four Canadian groups assigned to the Mid-Ocean Escort Force operating in the North Atlantic. There was every indication that this would be the case. During the course of her work-up programme *Nabob* had carried out anti-submarine detection exercises as well as air support group exercises in preparation for trade protection duties. As early as April 1944, *Nabob* had been designated for trade escort duties under the administrative orders of the Commander-in-Chief, Western Approaches.[46] This was confirmed by Vice-Admiral P. W. Nelles, Senior Canadian Flag Officer (Overseas) on April 24, 1944, following his visit to *Nabob*. In his report he noted that Acting-Captain Lay had been informed by the Flag Officer Carrier Training that "*Nabob* would be allocated to the North Atlantic convoy protection service, [although] it seem[ed] probable that the ship [would] operate in conjunction with support ships, and [would] be based in a United Kingdom port."[47] On June 19, 1944, the Commanding Officer H.M.S. *Nabob* proposed that a group of five Canadian destroyers or frigates be allocated to form with *Nabob* the first Royal Canadian Navy

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[45]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 25. Rear-Admiral, R. R. McGrigor, Commanding First Cruiser Squadron (short title CS-1).

[46]Naval Message from Commanding Officer, H.M.S. *Nabob* to Flag Officer Carrier Training, dated June 19, 1944, ADM 1/16032. Admiralty signal 091903/April to Commander-in-Chief, Western Approaches.

[47]Senior Canadian Flag Officer's (Overseas) Report on Visit to H.M.S. *Nabob,* dated April 24, 1944, RG 24, vol. 6744, file 8000-500/329, P.A.C.

Air Support Group.[48] Subsequent to Lay's request, Naval Service Headquarters informed the Admiralty that six frigates were working-up at Bermuda and would be ready for operations at the end of July. The frigates were to be used as a support force in the Western Atlantic under the operational control of the Commander-in-Chief, Canadian Northwest Atlantic. In order to complete the support group Naval Service Headquarters requested that an escort carrier (*Nabob*) be placed under the operational control of Canadian authorities.[49]

Initially at least, Canadian proposals met with a favourable response. The Commander-in-Chief, Western Approaches, Admiral Sir Max Horton, concurred with Lay's recommendation and suggested that, "the Canadian support group operate, so far as practicable, against U-boats in latitudes where the weather is most suitable for flying from escort carriers."[50] However, there were several factors which prevented *Nabob* from seeing service with a Canadian support group. Firstly, the creation of a Canadian support group seemed likely to present problems insofar as support facilities were concerned. Halifax was already fully employed supporting merchant aircraft carrier ships as well as other essential escort vessels. The *Nabob* group would mean that other facilities would have to be located and/or borrowed. In addition, training facilities were already in place in Western Approaches Command. Secondly, and more important, the

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[48]Commanding Officer H.M.S. *Nabob* to Flag Officer Carrier Training, dated June 19, 1944, ADM 1/16032.

[49]Naval Service Headquarters to Admiralty, dated July 10, 1944, ADM 1/16032.

[50]Minute Sheet no. II, Commander-in-Chief, Western Approaches to the Secretary of the Admiralty, dated July 8, 1944, ADM 1/16032.

Admiralty was faced with the following commitments:

> (a) Maintenance of maximum offensive in [the English] Channel until U-boats abandon the attempt to interfere with Overlord.
>
> (b) Provision of escorts for North Russian convoys.
>
> (c) Reorganization of ocean groups to permit a reduction in size of trans-Atlantic convoys for the winter.[51]

From the British perspective the "Admiralty could not afford the manning of a support group chasing the odd U-boat in the west side of the Atlantic"[52] regardless of the group's value in the future. The disposition of German U-boats warranted *Nabob*'s stationing in British Home Waters, and the Admiralty did not look kindly on Canadian attempts to assert autonomy in naval affairs. This attitude was perhaps best illustrated by the as yet unidentified Admiralty officer who asserted: "I do not like Naval Service Headquarters proposal [to place an escort carrier under the operational control of the Commander-in-Chief, Canadian Northwest Atlantic] because it implies the intention to operate the group independently."[53] As of July 11, 1944, the Admiralty was still not certain whether *Nabob* would be stationed in the Mediterranean or with the Home Fleet. However, by July 22, 1944, the Admiralty was requesting that the support group operate either with the North Russian convoys or in the English Channel. As *Nabob* was still an H.M. ship, Canada was obliged to acquiesce to British requests. *Nabob*

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[51]Admiralty to Naval Service Headquarters, dated July 22, 1944, ADM 1/16032.

[52]Minute Sheet no. 1 Director of Operations Division to the Admiralty dated July 13, 1944, ADM 1/16032.

[53]Ibid. This comment was pencilled in on the minute sheet.

arrived at Scapa Flow on August 1, 1944, and spent the next eight days preparing for Operation "Offspring"; this included two days of flying training (August 3-August 4) in the practice area west of the Orkney Islands in company with H.M.C.S. *Algonquin*.[54] Operation "Offspring" was designed to force German shipping (both merchant and warship) out of the Norwegian "leads" or channels between the coast and outlying islands by laying mines.[55] The laying of mines would allow Coastal Command Mosquitoes and Beaufighters flying from Northern Scotland to strike German shipping.[56]

The force assigned to Operating "Offspring" consisted of the following ships:

> The Fleet carrier H.M.S. *Indefatigable* (Flag of the Rear-Admiral Commanding First Cruiser Squadron) carrying the fighter aircraft (sixteen Seafires, ten Fireflies and two Hellcats); H.M. Ships *Trumpeter* and *Nabob* each carrying twelve Avengers fitted for minelaying [and four Wildcats]; the cruisers *Kent* and *Devonshire* and Captain (Destroyer's) 26th Flotilla in H.M.S. *Myngs* with H.M. Ships *Verulam, Vigilant, Virago, Volage* and *Scourge* and H.M.C. Ships *Algonquin* and *Sioux*.[57]

On August 8, 1944, *Nabob* sailed with Force 4 in preparation for a full-scale rehearsal of the operation, launching all twelve of her Avengers that afternoon.[58] The following day the force shaped course for the Norwegian coast. It was planned to

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[54]See Appendix V for a map of the operations in which H.M.S. *Nabob* and *Puncher* took part during 1944-45.

[55]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 1, DHist 87/48. See Appendix III for a map of operations in which *Nabob* and *Puncher* took part.

[56]Ibid.

[57]Ibid.

[58]Report of Proceedings--H.M.S. *Nabob,* August 1, 1944-August 31, 1944, RG 24, vol. 11304, file CS 159-10-22, P.A.C. Force 4 comprised the aforementioned warships.

launch two strikes of Avenger aircraft. The first wave, consisting of twenty-four planes, would be flown-off from *Trumpeter* and *Nabob*, lay their mines, return to the carriers to refuel and rearm and launch a second strike, having sown a total of 48 mines. The fighters from *Indefatigable* were to provide close escort for the Avengers against enemy fighters as well as carry out secondary attacks against suitable targets such as anti-aircraft batteries and radar stations, while a group of eight Seafires attacked Gossen airfield nearby. The Wildcat fighters from *Nabob* were to provide top-cover for the fleet throughout the entire operation.[59]

On August 10, 1944, the force reached the flying-off position but could not launch the aircraft until 1300 hours because of poor weather conditions. The first attack nevertheless caught the Germans totally offguard. "Six Messerschmidt 110's were destroyed on the ground at Gossen airfield, hangars and warehouses, and an oil tank were set on fire and the 90-ton minesweeper R.89 was sunk."[60] All aircraft had returned from the first strike by 1430 with only minimal damage to one or two fighters. The Avengers of 852 Squadron could not land-on immediately however. Just as the squadron was returning, one of the destroyers picked up an asdic contact dead ahead of Nabob. "The rudder was put hard over in an emergency turn and the planes had to continue circling until the carrier could resume the landing-on course."[61] Once the aircraft landed they were checked for damage, fuelled and rearmed in preparation for

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[59]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, DHist 87/48.

[60]Naval Staff History, The Development of British Naval Aviation, 1919-1945, vol. II, Appendix X.

[61]D. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 25.

the second strike.

The second wave took off at 1800 with all aircraft airborne by 1815 hours. The Germans were better prepared for the second attack, and anti-aircraft fire was both heavy and accurate in the Lepsorev Channel area. However, the twelve Avengers from *Nabob* "had a less dangerous task than those from *Trumpeter* as the outer end of Haarhams-fjord was not defended by anti-aircraft batteries as was Lepsorev Channel."[62] Despite German resistance all twenty-four mines were sown successfully and the aircraft returned to the carriers by 1945 hours. Having successfully completed the operation, Force 4 withdrew, shaping a course for Scapa Flow. The force had lost one Avenger from *Trumpeter*, and one Firefly and three Seafires from *Indefatigable*. "Thus ended Operation 'Offspring,' the largest Home Fleet carrier minelaying operation of the war."[63]

On completion of Operation "Offspring," "*Nabob* and *Trumpeter* were detached from Force 4 at 1900 hours on August 11, 1944, in Pentalyn Firth and ordered to proceed to Rosyth,"[64] to embark a special type of mine which was to be used in their next sortie with the Home Fleet. Having completed embarkation both ships weighed anchor shortly after midnight on August 13, bound for Scapa Flow.

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[62]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 2, DHist 87/48.

[63]Brief History of H.M.S. *Nabob,* p. 12, DHist 8000 H.M.S. *Nabob.* The total number of aircraft involved in the two strikes were: 47 Avengers (Squadron 846, 852, one mine each), 32 Seafire III's (Squadron 894, 887), 28 Fireflies (Squadron 1770), 2 Hellcats (Squadron 1840), the last two squadrons involved in escort and anti-flak duties. This list does not include the Wildcats used to provide top-cover for the fleet. Naval Staff History, The Development of British Naval Aviation 1919-9145, vol. II, Appendix X.

[64]Report of Proceedings--H.M.S. *Nabob,* August 1, 1944-August 31, 1944, RG 24, vol. 11304, file CS 159-10-22, P.A.C.

From August 14, 1944, through August 17, 1944, *Nabob* once again conducted flying exercises in the practice area west of the Orkney Islands in preparation for Operation "Goodwood"--the largest Home Fleet (Fleet Air Arm) operation of the war.[65] The operation was to be a repeat of Operation "Tungsten," Fleet Air Arm's attack against *Tirpitz* on April 3, 1944. Once again the German battleship was the target. *Tirpitz* had seriously limited the scope of operations of the British Home Fleet since January 1942. Simply by positioning herself in the Norwegian fjords, *Tirpitz* had become a "fleet in being." The British were obliged to devote a large proportion of their naval resources to prevent her from breaking out into the Atlantic or raiding convoys to North Russia. In addition, the Germans felt that *Tirpitz* provided some measure of security against an Allied invasion of Norway.[66]

The purpose of Operation "Goodwood" was to immobilize *Tirpitz* prior to recommencement of the Arctic convoys. The Admiralty's assessment of the situation was that:

> By June [*Tirpitz*] would be capable of "limited operations"; and, quite apart from the need to safeguard the Arctic convoys, it was impossible to carry the strengthening of the Eastern Fleet [British Pacific Force] at the expense of the Home Fleet any further until the *Tirpitz* had been sunk or permanently put out of action.[67]

Operation "Mascot" which was carried out on July 17, 1944, was designed to

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[65]Brief History of H.M.S. *Nabob,* p. 13, DHist 8000 H.M.S. *Nabob.*

[66]Admiral Karl Doenitz, Ten Years and Twenty Days, pp. 385-86.

[67]S. W. Roskill, The War at Sea 1939-1945, vol. III, The Offensive, Part II, lst June 1944-14th August 1945 (London: Her Majesty's Stationery Office, 1961), pp. 155-56.

do just that. Unfortunately, the Germans were prepared and put up an effective smoke-screen which prevented Fleet Air Arm aircraft from finding their target. Consequently, Operation "Goodwood" was planned for August 22-August 29, 1944.

Operation "Goodwood" had been timed to coincide with the passage of convoys JW 59 and RA 59A, just as "Tungsten" had been timed to cover the passage of JW 58 and RA 58, four months earlier. This would ensure that the convoys would be protected from *Tirpitz* and the convoys could be used to lure U-boats operating in northern waters away from the precious aircraft carriers. In addition there would be diversionary attacks on Hammerfest and Banak airfield.

The attack on *Tirpitz* was to be carried out by three bomb-carrying squadrons of Barracuda aircraft from the fleet carriers H.M. Ships *Indefatigable, Formidable* and *Furious.* Two squadrons of Avengers from H.M. Ships *Nabob* and *Trumpeter* were to lay special mines near the *Tirpitz*, while fighter aircraft conducted strafing raids on Hammerfest and Banak.

The aircraft carriers sailed in two separate forces:

> Force 1, including the three fleet carriers under Rear-Admiral Commanding First Cruiser Squadron in H.M.S. *Indefatigable*, was commanded by Commander-in-Chief Home Fleet in H.M.S. *Duke of York* with H.M.S. *Berwick* and *Devonshire* and 13 ships of the 8th, 23rd, 26th and 27th Flotillas under H.M.S. *Myngs*, Captain (Destroyer 26th), including H.M.C.S. *Algonquin* and *Sioux*. Force 2 was composed of H.M.S. *Trumpeter* and *Nabob*, H.M.S. *Kent*, and the 5th Escort Group comprising H.M.S. *Bickerton* (Senior Officer) and four other Captain class frigates. [In addition to] the two carrier groups was Force 9--two oilers with [four] escorting corvettes.[68]

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[68]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 1, DHist 87/48.

Nabob weighed anchor on August 18, 1944, and cleared the boom defences at Scapa Flow in company with *Trumpeter*. Force 2, consisting of *Nabob* (guide of the fleet--Force 2) with *Trumpeter* astern and the 5th Escort Group acting as a screen for the carriers proceeded at 17 knots for Norway. Force 1 maintained visual signalling distance with Force 2 for the duration of the passage, reaching the flying-off position in the Arctic Circle north of Tromso on August 20, 1944. During the afternoon of the 20th, *Nabob*'s 14 Avengers were armed and ranged on the flight deck in preparation for the first strike.[69] At approximately 2200 *Nabob* was informed by Commander-in-Chief, Home Fleet, that Operation "Goodwood" had been postponed until August 22, 1944, owing to deteriorating weather conditions in the area. The fleet withdrew to the west to avoid contact with the enemy and to refuel the escorts. Following refuelling the fleet returned to the flying-off position in the early hours of August 22, 1944. At 0936 of the same day the Commander-in-Chief, Home Fleet, signalled that the hour for Operation "Goodwood" would be 1100 hours. Once again preparations were made to launch *Nabob*'s 14 Avengers but half-an-hour after the first signal, the Rear-Admiral Commanding First Cruiser Squadron informed *Nabob* and *Trumpeter* that the Avenger squadrons would not take part in the operation on account of poor weather conditions.[70] Good visibility was crucial in order to successfully carry out their assigned role. Visibility up to 8,000 feet was required:

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[69]Report of Torpedo Damage to H.M.S. *Nabob* on August 22, 1944, including Movements from August 18, 1944-August 27, 1944, RG 24, vol. 11751, file 159-10-24, P.A.C. Prior to Operation "Goodwood" *Nabob*'s complement of aircraft was adjusted to 14 Avengers and 4 Wildcats as required by the operation.

[70]Ibid.

> . . . since the Avengers had to see the Barracudas below them in order to synchronize their attacks. Since the visibility was not sufficiently good for this to be done, it was decided that the special mines which were to be laid around the *Tirpitz* should not be thrown away in an attack made under unfavourable conditions.[71]

The cancellation of this part of the operation was a bitter blow to *Nabob*'s crew, and in particular to 852 Squadron, which had trained very hard for this opportunity. At the hour (1100) the bugle call for "Action Stations" was sounded and at 1225, four Wildcat fighters were flown off *Nabob* to provide top-cover for the rest of the fleet. In the meantime 32 Barracudas, 24 Corsairs, 11 Fireflies, nine Hellcat fighter-bombers, and eight Seafires (of *Indefatigable*'s no. 24 Fighter Wing) departed for the *Tirpitz*. However, solid cloud cover at 1,500 feet forced the Barracudas and Corsairs to return to the carrier. The Seafires continued on course for Banak airfield and the Kolvick seaplane base, while the Fireflies and Hellcats attacked *Tirpitz*.[72] Despite the fact that the Germans were caught unawares, no hits were registered on *Tirpitz*. The only damage inflicted was the loss of *Tirpitz*'s two AR 196As aircraft, a U-boat (U-965) at Hammerfest and the seaplane anchorage at Bukta was strafed.[73]

Meanwhile *Nabob* continued to provide air cover for the fleet until 1504 when her four Wildcat fighters were landed on. At 1530 action stations were secured and defence stations closed up, and H.M. Ships *Kent, Trumpeter, Nabob*, and 5th Escort

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[71]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 2, DHist 87/48. These special mines were designed to inflict heavy underwater damage up to 30 feet away from the *Tirptiz*.

[72]David Brown, Tirpitz the Floating Fortress (London: Arms and Armour Press, 1977), p. 38.

[73]Ibid.

Group were detached westward with instructions to refuel the destroyer escorts. *Nabob* was instructed to fuel three destroyers commencing at 1800, while *Trumpeter* was to carry out anti-submarine patrols in the immediate vicinity.[74] The weather "was clear, visibility 20 miles, wind 15 knots from a direction 255 degrees, the sea was slight and the swell moderate."[75] The flight deck had been cleared and the crew was preparing the buoyant hose for fuelling, when at 1716 *Nabob* was torpedoed on the starboard side aft by U-354. *Nabob* had been in company with H.M.S. *Trumpeter* and screened by the 5th Escort Group, and was approximately 100 nautical miles northwest of Alten Fjord at the time of the torpedoing.[76]

As a result of the torpedoing, *Nabob*'s electrical power failed immediately. This, in turn, caused all auxiliary machinery in the engine room to fail. Within two minutes of the torpedoing the main engines had shut down and the temperature in the engine room rapidly climbed to 150° degrees as the ventilation fans ceased to function. Immediately after the torpedo struck, "the ship rapidly trimmed down 14 feet by the stern to a draught of 38 feet and took a seven-degree list, her draught finally increasing to 42 feet."[77] The compartments in the immediate vicinity of the damage were evacuated and the hatches were closed, but the large horizontal hatches throughout the ship were not watertight. Consequently, the ship flooded up to the galley deck, just

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[74]Report of Torpedo Damage to H.M.S. *Nabob* on August 22, 1944, RG 24, vol. 11751, file 159-20-24, P.A.C.

[75]Ibid.

[76]Ibid. *Nabob's* exact position was "71 degrees, 38 minutes North, 19 degrees, 27 minutes East, zig-zagging on a mean course of 265 degrees."

[77]Ibid.

below the main hangar deck. Due to the rapidity of the stern settling,

> it at first appeared as if *Nabob* would sink quickly, and all boats, carley floats, and rafts, were put over the side and the ship's company ordered to prepare to abandon ship.[78]

At 1815, almost an hour after the torpedo had struck, 214 ratings including 10 injured men were transferred to H.M.S. *Kempthorne*. Most of the injuries had occurred in and around the spirit room where the rum issue was being dispensed at the time of the torpedoing. The explosion destroyed or put out of action the:

> main galley, bakery, vegetable preparing room, scullery, all refrigerators, provision room, main provision stores, and some of the crews berthing and sleeping areas. In addition several other compartments including crews berthing, the messing assembly, powder storage and bomb storage areas were rendered useless due to flooding.[79]

Damage control parties began the task of shoring up bulkheads and the decks with timber already stored aboard. By 1850 it was reported that the engine room bulkhead was holding and that the engines, propeller shaft, and the propeller were undamaged, and that it would be possible to make the necessary repairs to get underway.

In the meantime, all unnecessary weight was being jettisoned from *Nabob* including ammunition, depth charges, even the 5-inch guns were dismantled and thrown overboard. The aircraft handling party moved all the aircraft in the hangar as far forward and to port as possible to counteract the list of the ship and to raise the stern.

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[78]Ibid.

[79]Ibid.

"None of the escorts had been in asdic contact and it was presumed that *Nabob* had been hit by a "Gnat" torpedo fired at extreme range."[80] While conducting a search for the U-boat, H.M.S. *Bickerton* was torpedoed at 1724, the stern of the frigate being blown off and more than 40 men killed in the explosion."[81] At that time, H.M. Ships *Kempthorne, Vigilante, Aylmer,* and *Bligh* were in the area, and *Kempthorne* was detached to pick up the remaining survivors while the other ships conducted an "Observant," but to no avail.[82]

By 1900 flooding was under control and one hour later *Nabob*'s engine room began raising steam. At the same time preparations were under way to transfer 173 men of 852 Squadron to the destroyers, leaving onboard the squadron's air staff officers. Finally, after more than three hours of frenzied work *Nabob* gathered way at 2139 and shaped course for Scapa Flow at approximately six knots. For the passage home *Nabob* was escorted by H.M. Ships *Aylmer, Kempthorne* and *Bligh*. *Nabob* would be joined on August 23rd by H.M.S. *Keats*, H.M.C.S. *Algonquin* and H.M.S. *Trumpeter* who followed astern and provided air escort.

From "2230 August 22nd and 0230 August 23rd a series of High Frequency/Direction Finding bearings were obtained by both *Nabob* and the escorts

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[80]Brief History of H.M.S. *Nabob,* p. 15, DHist 8000 H.M.S. *Nabob.*

[81]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation, 1918-1962, p. 27.

[82]An "Observant" was a two-mile square, clockwise search around a center or datum point, usually the last known position of a submarine. In this case datum point was *Nabob* as cited in Brief History of H.M.S. *Nabob,* p. 16, DHist 8000 H.M.S. *Nabob.*

which indicated that a U-boat was following astern."[83] By 0230 the submarine had closed to 3,600 yards and it was necessary to alter course to put the submarine astern of the ships. *Nabob* managed to catapult two Avengers off her sloping flight deck to chase the submarine off. Although a U-boat was never sighted credit was given to the aircrews for keeping the U-boat submerged, thereby giving *Nabob* the opportunity to make good her escape. After providing anti-submarine patrols for three-and-a-half hours, the Avenger pilots had to face the dangerous task of landing on the canted flight deck. Landing on an escort carrier's flight deck was a difficult task under the best of conditions. The first Avenger managed without mishap. The second aircraft, however, was not so fortunate. Weather conditions were deteriorating and the ship's movement caused the plane to crash into the barrier. As a result "two Avengers were seriously damaged (and were subsequently jettisoned) while two other Avengers and two Wildcats were slightly damaged."[84]

Shoring up operations continued throughout the rest of the passage as did the jettisoning of unnecessary equipment to further reduce the draught. "At 1900 hours one of H.M.S. *Trumpeter*'s Avengers was sighted and it maintained anti-submarine patrols until her escorts joined company at approximately 1930."[85] Half an hour later "*Nabob* stopped and a further 202 ratings plus the chaplain were transferred to *Algonquin* in

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[83]Report of Torpedo Damage to H.M.S. *Nabob* on August 22, 1944, RG 24, vol. 11751, file 159-20-24, P.A.C.

[84]Ibid.

[85]Ibid.

motor boats belonging to *Algonquin* and H.M.S. *Keats*."[86] *Nabob* then resumed course for Scapa Flow.

On August 24, 1944, the weather deteriorated rapidly and *Nabob* found herself in the middle of a gale. According to Lay's report the "sea was steep the swells were short."[87] The strong gale continued for eleven hours, but the ship was able to remain on course and maintain a speed of ten knots. Fortunately for *Nabob* the bulkheads and shoring held. By August 25th the sea had moderated and although several High Frequency/Direction Finding bearings were obtained, they turned out to be false alarms. Air cover by Catalinas and Sunderland flying-boats was provided on August 25th and August 26th, while *Trumpeter* continued to fly anti-submarine patrols. On August 26th, H.M.C.S. *Algonquin* "was detached to meet Captain (Destroyers 27th Flotilla) and transfer *Nabob* personnel to H.M.S. *Zest*."[88] By 0815 the relieving escorts were sighted and H.M. Ships *Aylmer, Bligh* and *Keats* were detached to the Faroes. *Nabob* finally arrived at Scapa Flow and secured at 0800 having covered 1,093 miles in four days and five nights. It was a miracle that she had made it at all.

Indeed, in the words of Rear-Admiral Commanding First Cruiser Squadron, "looking at her [*Nabob*] from a distance of seven miles I never expected her to

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[86]Ibid.

[87]Ibid. Waves in a strong gale could reach as high as 34 feet. A short swell means a swell where the length or distance between each successive top of swell is less than 300 feet as cited in Naval Staff History: The Development of British Naval Aviation 1919-1945, vol. II, Appendix XXX.

[88]Report of Torpedo Damage to H.M.S. *Nabob* on August 22, 1944, RG 24, vol. 11751, file 159-10-24, P.A.C.

survive."[89] That *Nabob* did survive can be attributed to several factors. Firstly, the extensive modifications carried out by Burrard Drydock and Shipbuilding Company, to Royal Navy standards, in all likelihood prevented a serious avgas and/or bomb magazine explosion. Secondly, exemplary work was carried out by the ship's company, particularly the damage control, and electrical parties, engine room personnel and the aircraft handling parties who all contributed to the common cause.[90] Finally, according to Acting-Captain Lay, *Nabob* was particularly fortunate in having more than its share of heavy timber, used for repair and shoring operations. In Lay's words:

> It is further observed that very little timber is allowed to United States Navy ships of the same type by the Bureau of Ships and it cannot be doubted that a United States ship under the same circumstances would almost certainly have lost many of the bulkheads saved in *Nabob* by quick shoring.[91]

In *Nabob*'s case the lengthy delays in "Anglicizing" the ship (no doubt) prevented the heavy loss of life.

As it was, eleven Royal Canadian Navy and ten Royal Navy ratings were killed or missing as a result of the explosion with a further five Royal Canadian Navy and one

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[89]Rear-Admiral Commanding First Cruiser Squadron to Commander-in-Chief, Home Fleet, report of Torpedo Damage, dated September 16, 1944, no. 275/380, RG 24, vol. 11751, file 159-10-24, P.A.C.

[90]In the Commanding Officers report special mention was made of the work carried out by the electrical party under Lieutenant-Commander (EL) H. H. Jones, Royal Canadian Naval Volunteer Reserve; the engineroom department under Commander (E) C. I. Hichcliffe, Royal Canadian Naval Reserve; the damage control arrangements under the direction of the Senior Engineer, Lieutenant (E) D. T. Forster, Royal Canadian Navy; and the Chief Shipwright, James R. Ball.

[91]Report of Torpedo Damage to H.M.S. *Nabob* on August 22, 1944, RG 24, vol. 11751, file 159-10-24, P.A.C.

Royal Navy ratings injured. Indeed, the whole *Tirpitz* operation was rather disappointing. Besides the loss of H.M. Ships *Nabob* and *Bickerton*, the Fleet Air Arm lost one Barracuda and ten fighters in the 242 sorties launched against *Tirpitz*. Despite receiving a direct hit with a 1,600 pound armour piercing bomb (which failed to explode) and another hit with a 500 pound bomb, only superficial damage was inflicted on the *Tirpitz*. Norman Polmar has referred to Operation "Goodwood" "as the most striking failure of the Fleet Air Arm during World War II . . ."[92] for failing to sink the great battleship. He attributes the failure directly to the poor performance of the Barracuda aircraft (both in speed and bomb-load capacity). He has failed, however, to take into account the mitigating factors which contributed to the Fleet Air Arm's poor showing: poor weather conditions, the withdrawal of two escort carriers and their twenty-four Avenger aircraft, and the determined resistance of the Germans themselves. While Goodwood failed to achieve its primary objective, namely the sinking of *Tirpitz*, it did achieve its secondary goal, the demobilization (albeit brief) of the German capital ship. Damage to the deck and superstructure, casualties among the crew, and the diminution of ammunition stocks resulted in *Tirpitz* being rendered non-operational for some time. Insofar as *Nabob* was concerned, she was avenged on August 23, 1944, when aircraft operating from H.M.S. *Vindex* sunk U-354.

Nabob would have certainly been repaired and put back into service,

if sentiment had prevailed, but her damage was so extensive and the British

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[92]Norman Polmar, Aircraft Carriers: A Graphic History of Carrier Aviation and Its Influence on World Events, p. 310.

yards so overcrowded that the Admiralty decided to "cannibalize" her.[93]

Significantly had *Nabob* survived the attack, she would have been used in an air support role providing distant cover for convoy JW 59. This role would have been more in line with the training she received during her intensive work up programme. *Nabob* remained at Scapa Flow until September 8, 1944, when she proceeded to Rosyth where she was destored and paid off on September 30, 1944. Although *Nabob* had been in commission for just over one year and had taken part in only two operations (in which she was used as a fleet carrier) she deserves an honourable place in Royal Canadian Navy history for her valuable contribution to a fledging Canadian naval air arm: this despite the fact that *Nabob* remained an H.M. Ship throughout her commission. The manning of H.M.S. *Nabob* had provided Royal Canadian Navy officers and men with valuable experience in the operation of this class of vessel and would prove to be invaluable when the time came to operate the light fleet carriers. For *Nabob*'s part in Operation "Goodwood" she received "Tirpitz" as a battle honour. With the paying off of *Nabob* Canadian personnel were left manning only one escort carrier, H.M.S. *Puncher.*

The escort carrier H.M.S. *Puncher* was the second carrier to be partially manned by Royal Canadian Navy personnel. Like her sister ship *Nabob*, H.M.S. *Puncher* (C.V.E. 53) was built by the Seattle Tacoma Shipbuilding Corporation. She was commissioned on February 5, 1944, with the following specifications:

> 14,170 tons displacement, a length of 492 feet, breadth at flight deck 102 feet, and a draught of 24 feet, eight inches. Armament consisted of two 5-inch thirty-eight calibre, dual purpose guns; with 40 mm Bofors and 20 mm

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[93]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 28.

> Oerlikons for anti-aircraft defence. She was capable of operating from 12 to 18 aircraft depending on the type. Finally, *Puncher* was capable of 18 knots.[94]

Although slightly smaller than *Nabob*, *Puncher* was typical of all the escort carriers completed on the West Coast of the United States. Like these, she too had to be sailed up to Vancouver for extensive modifications at the Burrard Drydock and Shipbuilding Company, to meet Royal Navy standards. With a skeleton crew on board, she sailed for Vancouver on February 10, 1944. Captain R. E. S. Bidwell, Royal Canadian Navy, assumed command on April 10, 1944. Captain Bidwell had not been the first choice for command. In fact, on January 16, 1944 the Admiralty had suggested that Captain R. I. Agnew, at that time in command of the escort carrier H.M.S. *Atheling* be relieved by a Royal Navy Officer and returned to Canada to take command of *Puncher*.[95] However, Naval Service Headquarters, rejected that suggestion and in a signal to the Admiralty on February 23, 1944, stated that it was their intention to appoint Captain Bidwell in command.[96] Presumably, Naval Service Headquarters had taken this action to ensure that as many Canadian officers as possible obtain training in aircraft carriers. This would have been a particularly important consideration in light of Lay's earlier report that Canada acquire ten escort carriers. In the meantime, Captain Bidwell was undergoing a short course in the United Kingdom prior to being appointed

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[94]Brief History of H.M.S., DHist 8000 H.M.S. *Puncher* was given the pennant numbers D-79.

[95]British Admiralty Maintenance Representative to Naval Service Headquarters, dated January 16, 1944, ADM 1, 16045.

[96]Naval Service Headquarters to the Admiralty, dated February 23, 1944, RG 24, vol. 11963, file MS-69, P.A.C.

to command H.M.S. *Puncher*.[97]

Puncher was still undergoing alterations when Captain Bidwell assumed command, and as yet only about 120 of her crew were on board. According to Bidwell "most of the personnel were employed as security guards while the key technical personnel oversaw the work being done by Burrards."[98] *Puncher* was to have completed her refit on or about April 29, 1944, but the schedule was pushed back by two weeks so that twin Oerlikon mountings could be fitted instead of the single mounting found in earlier escort carriers. Work progressed more quickly than expected, and on May 9, 1944, *Puncher* sailed to Esquimalt for dry docking. The balance of her company joined while at Esquimalt although "forty to fifty ratings joined in small parties at subsequent dates" in other ports. On May 12, 1944, *Puncher* returned to Vancouver to embark more stores and carry out damage control exercises. On May 18th, *Puncher* secured alongside La Pointe Pier (Burrard's) for some final work on the twin Oerlikon mountings. On May 22, 1944, she conducted speed trials and undertook radar calibration at a position off Cape Flattery. From May 24th until May 28th *Puncher* was at Bremerton, Washington, embarking further stores, ammunition and fuel. The remainder of *Puncher*'s work-up programme consisted of full speed trials, gunnery practice, radar and High Frequency/Direction Finding calibration. *Puncher* returned to Esquimalt following the work up programme to embark the final stores before sailing for active duty.

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[97]DHist Ships Movements cards--H.M.S. *Nabob* and H.M.S. *Puncher*.

[98]For this and the following see Captain R. E. S. Bidwell's Unofficial Report on Commissioning and Working Up of H.M.S. *Puncher*, dated May 30, 1944, RG 24, vol. 6744, file 8000-500/413, P.A.C.

On June 8, 1944, H.M.S. *Puncher*, cleared Duntze Head in company with H.M.C. frigate *Beacon Hill* for final sea exercises; the following day the two ships shaped course for New York.[99] It was hoped that *Puncher*'s squadron would be embarked prior to sailing, but this proved to be impossible. However, "through the good graces of Group Captain Robnett, Royal Canadian Air Force, one unserviceable Shark aircraft was obtained."[100] Although *Puncher* could not conduct flying operations the single Shark aircraft did provide the flight deck party with valuable experience in the handling of aircraft.

She stopped at San Francisco and San Diego between June 11th and June 15th of 1944 to embark fresh provisions and special equipment such as tractors and trailers for the aircraft handling party. The fleet minesweeper H.M.S. *Foam* joined company at San Diego, and acted as a second escort for *Puncher* for the duration of the passage.[101] The three ships departed San Diego on June 15, 1944, in company for New York via the Panama Canal. By June 24th the three ships had transisted Panama Canal and were en route to New Orleans to embark four harbour defence launches.[102]

Following delivery of the harbour defence launches to New York on July 8,

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[99]H.M.S. *Puncher's* "Sailing Orders," dated June 6, 1944, RG 24, vol. 11972, file 262-2, vol. II, P.A.C.

[100]Captain Bidwell's Unofficial Report on the Commissioning and Working Up of H.M.S. *Puncher,* dated May 30, 1944, RG 24, vol. 6744, file 8000-500/413, P.A.C. Bidwell also added that the aircraft would now do everything but fly having repaired it and made its engine run.

[101]Ships Movements Cards--H.M.S. *Puncher,* DHist.

[102]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 30.

1944, *Puncher* arrived at the Portsmouth Navy Yard (New Hampshire) on July 12th and was fitted with six twin bofors. The work was completed in ten days and the ship made the return passage to New York where she arrived on July 22, 1944.

Preparations were underway for the upcoming allied invasion of Southern France[103] (Operation "Dragoon") and *Puncher* embarked forty United States Army planes including:

> Some of the latest night fighters, P-61's, embarked for service in the Mediterranean. Passengers for the forthcoming [passage] included 29 officers and 45 enlisted men of the 427th Night Fighter Squadron.[104]

Puncher joined convoy UGF-13 which began forming up off Norfolk on July 28, 1944. This was a fast convoy of sixteen ships:

> mostly tankers with high octane gasoline and troop transports carrying about 18,000 men escorted by a cruiser, USS *Cincinnati* with three destroyers and six destroyer escorts (Task Force 69).[105]

The passage was relatively uneventful and the escorts made no contact with the enemy. *Puncher* and the carrier U.S.S. *Shamrock Bay* were detached from the convoy off the African coast and escorted by four French chasseurs into Casablanca to off-load their cargo.[106] Four days were spent in harbour and *Puncher* put to sea again with Acting-Captain Bidwell serving as the Commodore of four merchant ships who had joined

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[103]Operation "Dragoon" took place on August 15, 1944.

[104]Brief History of H.M.S. *Puncher,* pp. 5-6, DHist 8000 H.M.S. *Puncher.*

[105]Ibid., p 6.

[106]Ibid.

convoy GUS-48. Once *Puncher* had joined the main convoy she turned over her charges and took up a position in her column for the slow passage back to Norfolk.[107]

Three days after securing alongside in Norfolk, *Puncher* began embarking both stores and aircraft belonging to Squadron 1845 for passage to the United Kingdom:

> Eighteen Corsairs were struck down into the hangar while the flight deck was packed with a freight cargo of Hellcats, Avengers, corsairs and one Helldiver, all of which had to be securely lashed down. Twenty-one officers and 125 ratings came on board and *Puncher* steamed up to New York for more passengers including 28 women and children.[108]

Convoy CU-38, escorted by Task Group 21, consisting of U.S.S. *Clarke* and nine destroyer escorts, left New York on September 4, 1944, bound for the United Kingdom. *Puncher* was delayed for one day awaiting delivery of special ammunition and did not sail until September 5, 1944. Escorted by the destroyer escort U.S.S. *Enright*, *Puncher* proceeded at full speed (18 knots) to overhaul the convoy, which she joined on the morning of September 9th. On September 14, 1944:

> having reached a position bearing 260 degrees and distance 45 miles from Bishop Rock, the convoy was split and *Puncher* became commodore of one section, consisting of 30 ships in five columns. In very poor visibility course was altered around Land's End and at about the same time three Canadian destroyers H.M.C. Ships *Assiniboine, Chaudiere* and *Qu'Appelle* joined as advanced support force. On three separate occasions this group attacked asdic contacts ahead of the convoy, causing it to make emergency turns.[109]

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[107]Ibid.

[108]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 30.

[109]Ibid.

Without any further incidents, *Puncher* finally berthed at King George V dock, Glasgow, where she off-loaded her cargo.

Acting-Captain Bidwell was hopeful that once H.M.S. *Puncher* arrived in the United Kingdom her squadron would be embarked. This did not happen. Consequently Captain Bidwell paid a short visit to Vice-Admiral Lyster, Flag Officer Carrier Training, prior to sailing in the next convoy, to inquire as to when *Puncher* might see combat. Vice-Admiral Lyster stated that the escort carriers were being employed in ferrying operations for the following reasons:

> (a) There are still a large number of planes to be moved, and these ships provide the most efficient and expeditious means of doing so.
>
> (b) There are at the moment, not enough squadrons to go around.
>
> (c) That before these ships can become operational, there are certain alterations and additions considered essential by the Admiralty . . .[110]

In addition these alterations were taking up to two months to complete owing to overcrowding in British shipyards. Although no definite date was set as to when *Puncher* might receive the necessary alterations, Captain Bidwell was of the opinion that everything possible was being done to get *Puncher* combat ready and she would just have to wait her turn.[111]

Following a short layover in Glasgow, *Puncher* joined company with the New York-bound convoy UC-38A at dawn on September 20, 1944. Throughout the day a

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[110]Captain Bidwell to the Secretary of the Naval Board, Naval Service Headquarters, dated September 29, 1944, RG 24, vol. 6744, file 8000-500/413, P.A.C.

[111]Ibid.

support group:

> consisting of H.M. destroyers *Duncan, Inconstant*, and *Fame* attacked several contacts. More ships joined to bring the total to 32 ships and in the evening, guarded by the destroyer, USS *Clarke* with eight destroyer escorts UC-38A began its voyage westward.[112]

Puncher arrived at Staten Island on September 30, 1944, and began immediately the task of embarking 78 aircraft for the return passage. She "sailed on October 6, 1944, with convoy CU-42 bound this time for Liverpool. By October 22, 1944, *Puncher* was secured to a buoy at the Tail-of-the-Bank in the Clyde."[113]

Stuart Soward has stated that the Royal Canadian Naval Air Service suffered two major setbacks in late summer of 1944. First, when *Nabob* was torpedoed on August 22, 1944, and second when *Puncher* was allocated to an aircraft ferrying role. The implication was that the second aircraft carrier was non-operational and therefore did not contribute to Canadian naval air operations during the Second World War.[114] This is simply not the case. Although *Puncher* was allocated to an aircraft ferrying role this was only temporary. In fact, October 22, 1944, marked the end of *Puncher*'s ferrying duties.

On completion of boiler cleaning, *Puncher* was taken in hand for modifications between November 12th and November 26th of 1944. As she was to operate a squadron of Barracuda torpedo-carrying aircraft the necessary alterations and additions

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[112]Brief History of H.M.S. *Puncher,* p. 7, DHist 8000 H.M.S. *Puncher.*

[113]Ibid., p. 8.

[114]Stuart Soward, "Canadian Naval Aviation, 1915-69," p. 274.

were carried out at the Tail-of-the-Bank. These modifications included:

(a) Bringing flight deck lighting up to date

(b) Bringing fighter direction room up to date

(c) Fitting type 277 and 242 radar installation, the latter considered essential if the ship is to operate night fighters.[115]

While these modifications were being carried out, *Puncher* began embarking stores in preparation for her first combat operation. "There was intense interest on board when the catapult was tested with seven shots, using an Avenger, while a Barracuda flew off and landed on twelve times."[116] Finally on November 26, 1944, H.M.S. *Puncher* altered course into the wind in the Clyde to receive twelve Barracuda of 821 Squadron. The following day *Puncher* was conducting deck landing practice in the Irish Sea. However, wind conditions forced the cancellation of flying exercises that afternoon. The carrier was entering Cumbrae Strait at 2020 when disturbing news was received from the engine room that the main engines had to be stopped owing to a gear failure.[117] The wind was now blowing at 34-40 knots and,

> after a rather tense period, in which the carrier sailed gracefully towards the west shore of Great Cumbrae Island and preparations were made to bring the ship to anchor, the engines started to operate again at low power. It was impossible to turn to port to the helm was put over to starboard and course resumed at six knots. Approaching the bay at Rothesay it was seen that all the billets were taken except the innermost one and *Puncher* had to anchor

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[115]Captain Bidwell to the Secretary of the Naval Board, Naval Service Headquarters, dated September 29, 1944, RG 24, vol. 6744, file 8000-500/413, P.A.C.

[116]Brief History of H.M.S. *Puncher,* p. 8, DHist 8000 H.M.S. *Puncher.*

[117]Ibid. Damage to the low pressure primary piston and first reduction wheel.

off Toward Point.[118]

The following day *Puncher* flew off five Barracudas to the Royal Naval Air Station at Machrihanish and entered harbour where two tugs were waiting to assist her to a buoy. This manoeuvre turned out to be a difficult task,

> as the picking up rope to the buoy and the tow line of the foremost tug parted simultaneously. There followed an anxious forty minutes while *Puncher* was clawing around the harbour more or less out of control [and] impeded by the second tug, which did not seem to understand any orders given to it. Finally the bridles were shackled on and the ship swung to her buoy for the next month whilst repairs were effected.[119]

The spares for *Puncher*'s engines were obtained from *Nabob*, lying derelict at Rosyth. The ship was pronounced ready for sea trials on December 28, 1944, after a lot of very hard work had been done by the engine room department in repairing the engines. Squadron 821 was re-embarked and *Puncher* prepared for an intensive work up programme.

Unlike *Nabob, Puncher* never did receive training in anti-submarine warfare. Instead she was used as an assault and/or fighter carrier taking part in fleet operations. At this juncture in the war the Admiralty required:

> Carriers for minelaying and anti-shipping strikes off the Norwegian coast. As carriers should carry out this work in pairs, three carriers are required in order to allow for one being away on boiler cleaning. [The carriers] H.M. Ships *Trumpeter* and *Premier* are employed on this duty at present, and *Puncher* will

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[118]Ibid.

[119]Ibid.

join them on completion of working up.[120]

The Admiralty was prepared, however, to transfer *Puncher* either to the Atlantic or to the Bay of Biscay if a U-boat threat developed in either of these areas. At this stage of the war, the 144 German submarines were concentrated off the entrance to the Kola Inlet and in British inshore waters as well as the Baltic.

On January 1, 1945, *Puncher* began work-up exercises in the Clyde area which entailed: Rocket Assisted Take-Offs (R.A.T.O.) and Attack Dummy Torpedo--an exercise where concrete blocks or empty oil drums are dropped in place of a torpedo.[121] Since dropping blocks or oil drums cannot simulate torpedo attacks one presumes that attack dummy torpedo exercises refers instead to depth charges or mines, particularly since *Puncher*'s aircraft laid mines off the coast of Norway in her first operation. The following day *Puncher* escorted by H.M. Ships *Starling* and *Magpie*, steamed into the Irish Sea to conduct radar calibration, Attack Light Torpedo exercises, deck landing training and finally night flying trials. *Puncher* had to return to the Tail-of-the-Bank on January 6, 1945, as *Magpie* had returned owing to a mechanical breakdown

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[120]Canadian Naval Mission Overseas to the Secretary of the Naval Board, Naval Service Headquarters, dated January 5, 1945, RG 24, vol. 6799, file NSS 8375-500/413, P.A.C.

[121]Report of Proceedings--H.M.S. *Puncher,* January 2, 1945-January 31, 1945, RG 24, vol. 11306, file CS 159-15-22, P.A.C. According to Captain Bidwell "it would not be possible to operate [fully] loaded Barracudas from this type of carrier without Rocket Assisted Take-Off Gear (R.A.T.O.G.). Captain Bidwell to the Commander-in-Chief, Home Fleet, re: General Report on Operation of Barracuda III from "Smiter" Class Escort carrier (H.M.S. *Puncher*), dated February 8, 1945, RG 24, vol. 11365, file H.M.S. *Puncher* (1), P.A.C.

and *Starling* was required for other duties.[122] *Puncher* returned to sea on January 9th for further flying exercises and attack dummy torpedo operations as well as interception and shadowing exercises. These exercises continued for two days until *Puncher* returned to Rothesay where she embarked Vice-Admiral Lyster to observe her training to date. *Puncher* continued her intensive work up programme until January 13, 1945, when she returned to the Tail-of-the-Bank to embark stores. The carrier returned to sea to resume her exercises on January 15, 1945. On that day, *Puncher* carried out her first full scale rehearsal with nine aircraft. At 1340 of the same day "while cruising north of Ailsa Craig Island *Puncher* received a signal that the escort carrier H.M.S. *Thane* had been torpedoed or mined off the Clyde Light Vessel."[123] Two of *Puncher*'s aircraft provided an anti-submarine patrol for two hours.[124]

From January 17th until January 24th of 1945, *Puncher* underwent boiler cleaning and repair of engine room defects, returning to the Clyde area on January 25th to resume exercises. *Puncher* put to sea on January 29, 1945, for the last exercises prior to her first operation but deteriorating weather conditions forced an early return to Rothesay. The following day she was at Tail-of-the-Bank to receive a visit from the Honourable Angus L. Macdonald, Minister of National Defence for Naval Services, and Vice-Admiral G. C. Jones, Chief of the Naval Staff. Having completed her work-up

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[122]Ibid.

[123]Ibid.

[124]According to Captain Bidwell's Report of Proceedings, *Puncher* had nine aircraft on deck beginning to refuel but it was possible to arm two aircraft and have them airborne in 45 minutes. He added, "which of course must be improved on." He was quick to point out that the two aircraft arrived about 30 minutes before shore-based Royal Air Force aircraft were on the scene.

programme, *Puncher* was now ready for full combat duty and was ordered to join the Home Fleet. At this stage of the war convoys still sailed across the Atlantic in 1945:

> and Canadian forces still provided a very large proportion of the escorts. Besides the squadrons of Eastern Air Command there were eight escort groups of minesweepers and corvettes and three support groups of destroyers and frigates based on Halifax. These figures do not include warships involved in patrolling Canadian coastal waters. [In addition] at least 25 per cent of the 416 escort vessels in British home waters were Canadian.[125]

The Allied naval effort was now concentrated in British home waters during the latter stages of the war. *Puncher* sailed for Scapa Flow at "1200 on January 31, 1945, flying on seven aircraft from Machrihanish in the Clyde area, and joining her escorts H.M.S. *Tovey* and H.M.C.S. *Iroquois* at 1600,"[126] before shaping a course for Scapa Flow.

During her passage one of the Squadron's aircraft sighted a U-boat making a crash dive approximately eight miles on the carrier's port beam. No further contact was made with the submarine although anti-submarine patrols were maintained. The rest of the passage was relatively uneventful and *Puncher* arrived at Scapa Flow in company with her escorts and anchored at B2 berth at 1520 on February 1, 1945.[127] From February 7th until February 9th *Puncher* conducted further flying exercises as well as High Angle gunnery practice with her Oerlikons and Bofors. On February 9th "at 1000 *Puncher* proceeded into the Flow to receive 14 Wildcats of 881 Squadron and four

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[125]W. A. B. Douglas and Brereton Greenhous, Out of the Shadows: Canada in the Second World War, pp. 95-96.

[126]Report of Proceedings--H.M.S. *Puncher,* January 1, 1945-January 31, 1945, RG 24, vol. 11306, file CS 159-15-22, P.A.C.

[127]Ibid.

Barracudas of 821 Squadron which were required for Operation "Selenium."[128] Of the four Barracudas embarked only two were equipped with High Frequency/Direction Finding. This deficiency necessitated an exchange with two properly outfitted aircraft from the Royal Naval Air Station at Hatston.

The purpose of Operation "Selenium" was the destruction of enemy shipping. "Selenium One" was to be a strike by cruisers and destroyers on coastal shipping between Bud and Kvitholm off the Norwegian coast, approaching from the north-west after dark on February 11, 1945. In "Selenium Two" aircraft from the escort carriers *Premier* and *Puncher* were "to provide fighter protection for the ships engaged in 'Selenium One' and were subsequently to send a strike to lay mines in the Skatestrommen, abreast Skaten Lighthouse."[129]

Force One, which was to operate against inshore shipping was composed of H.M. Cruisers *Norfolk* and *Dido* in company with the fleet destroyers *Myngs, Scorpion* and *Savage*. Force Two consisted of H.M.S. *Devonshire* (Senior Officer), *Premier* and *Puncher* and the destroyers *Cavendish, Cavalier, Scourge* and *Zebra*. Force Two sailed from Scapa Flow at 0900 on February 11, 1945, and met Force One the following day at 0537 hours.[130] The sweeps carried out by the cruisers and destroyers had failed to locate any enemy shipping in the "leads," so "Selenium Two" was ordered for the same day. At 1000 on February 12th a strike consisting of eight Avengers from *Premier* and

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[128]Report of Proceedings--H.M.S. *Puncher,* February 1, 1945-February 15, 1945, RG 24, vol. 11306, file CS 159-15-22, P.A.C.

[129]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 1, DHist 87/48.

[130]Ibid.

16 Wildcats (four from *Premier* and 12 from *Puncher*) were flown off. The aircraft from 881 Squadron (*Puncher*) were to provide top cover for the strike at 10,000 feet while the four Wildcats from *Premier* furnished close escort for the Avengers.[131] After successfully completing "Selenium Two" the aircraft withdrew to the carriers. The only incident to mar the operation occurred when one of *Puncher*'s aircraft attempted to land:

> [It] failed to obey the Deck Landing Control Officer's signal to "go up" and the plane hit the "round down" (the sloping after end of the flight deck) and broke off its tail wheel and hook. [The aircraft] bounced along the rolling and pitching deck before entering the barrier, in the process the machine guns accidently discharged and wounded five men on the flight deck.[132]

Despite this unfortunate accident, Captain Bidwell felt that the operation "was of the greatest value to everyone on board from the point of view of the experience gained."[133] The experience gained by Canadian officers and men in the operation of *Puncher* would pay dividends when the time came to establish a Royal Canadian Naval Air Arm. Indeed these men would provide the nucleus of the Canadian Fleet Air Arm. *Puncher* in company with Force One and Force Two withdrew to the west and steamed into Scapa Flow on February 13, 1945, to begin preparations for her next operation.

Puncher embarked six Barracudas and ten Wildcats on February 17, 1945, in preparation for her forthcoming operation. Like the former, the next operation was

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[131]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, Appendix XI.

[132]Brief History of H.M.S. *Puncher,* p. 12, DHist 8000 H.M.S. *Puncher.*

[133]Report of Proceedings--H.M.S. *Puncher,* February 1, 1945-February 15, 1945, RG 24, vol. 11306, file CS 159-15-22, P.A.C.

divided into two parts. The first, Operation "Shred" was "a minesweeping operation through a suspected German mined area off Stavenger by the 10th Flotilla."[134]

The aircraft from *Puncher* and *Premier* were to conduct patrols in the area during the day while the 10th Flotilla conducted its minesweeping under the cover of darkness. The second part of the operation, code-named "Groundsheet," was designed to disrupt enemy shipping in the Norwegian channels by laying more mines. The forces assigned to "Groundsheet" consisted of "H.M. Ships *Dido, Puncher, Premier* with Captain (Destroyers) 26th Flotilla in H.M.S. *Myngs* with H.M.S. *Scorpion* and *Cavalier* in company."[135] The 10th Minesweeping Flotilla sailed early in the morning of February 21, 1945, followed by Force 4, the support force for the 10th Flotilla and ships assigned to "Groundsheet." In spite of adverse weather conditions and poor visibility the fleet minesweepers were able to carry out their task.

At 1100 on February 22, 1945, the aircraft from both *Puncher* and *Premier* were launched for Operation "Groundsheet." *Puncher* launched nine Barracudas fitted with Rocket Assisted Take-Off Gear and eight Wildcats for close escort, to mine Karmoy Channel, near Stavenger. *Premier* launched another eight Wildcats (835 Squadron) which provided top cover for the fleet. Unfortunately the strike's navigation was faulty:

> When the Norwegian coast was reached the Barracudas were able to correct their position by identifying Stavenger in the distance while the Wildcats

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[134]Brief History of H.M.S. *Puncher,* p. 12, DHist 8000 H.M.S. *Puncher.* The 10th Minesweeping Flotilla consisted of H.M. Ships *Courier, Jewel, Serene, Wave, Hare* and *Golden Fleece.*

[135]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 1, DHist 87/48.

> escorting were unable to do so. The Barracudas therefore carried on without [close] escort to the target area and were met by intense anti-aircraft fire. The aircraft, however, made a careful and accurate run over the area, dropping their mines according to plan in spite of the fire directed at them.[136]

A total of seven mines were laid and two Barracudas from *Puncher* squadron were lost due to heavy and accurate flak. If the close escort had not lost contact with the Barracudas it might have been possible to avoid the loss of the two Barracudas. The eight Wildcats did manage, however, to strafe buildings on the Stavenger waterfront and the Wireless/Telegraphy station on Feisten Island. Also one Dornier 24 flying-boat was set on fire.[137] On successful completion of Operation "Groundsheet" the ship returned to Scapa Flow on February 23, 1945.

The period from February 23rd until March 24th of 1945 was a quiet time operationally for *Puncher*. The reason, "given by the Vice-Admiral Commanding First Cruiser Squadron to a general meeting of carrier Commanding Officers held aboard H.M.S. *Norfolk* was that the Home Fleet was suffering from a shortage of destroyer escorts."[138] The situation was so critical that several operations were postponed and exercises were restricted to the Flow. Adding to the problem was the generally unfavourable weather conditions "such as gales, which swept the Orkney Islands until March 10, 1945."[139] During this period every opportunity was given to exercise the

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[136]Ibid.

[137]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, Appendix XI.

[138]Report of Proceedings--H.M.S. *Puncher,* March 1, 1945, March 15, 1945, RG 24, vol. 11306, file CS 159-15-22, P.A.C. Meeting held on March 6, 1945.

[139]Ibid.

ship's company in damage control exercises, gunnery drills, High Angle shoots, and flying exercises for the squadron at the Royal Naval Air Station at Hatston. In addition, *Puncher* underwent boiler cleaning in preparation for her next operation.

Finally on March 23, 1945, *Puncher* embarked 12 Barracudas and four Wildcats for Operation "Prefix," an operation designed to destroy enemy shipping in the Norwegian channels.[140] Four escort carriers *Puncher*, H.M. Ships *Searcher, Nairana,* and *Queen*, two cruisers, H.M. Ships *Bellona*, and *Dido*, and an escort of seven destroyers including H.M.C. Ships *Haida* and *Iroquois* sailed from Scapa Flow on March 24, 1945. In the forenoon *Searcher* and *Queen* launched a strike to attack coastal shipping in the Trondheim Leads and towards Kristiansand North. Unfortunately no suitable targets were found and the eight Avengers and 24 Wildcats had to return to the carriers, but not before the Wildcats had the opportunity to strafe radar and Wireless/Telegraphy stations in the area. During the course of the strike they shot down three Messerschmidt 109s and damaged two others. No British aircraft were lost, but the Avengers had to jettison their bombs before they could land back on the carriers.[141] The night strike by *Nairana*'s squadron (Operation "Muscular") had to be cancelled because of the poor weather. However, "Prefix Two" was carried out on March 23, 1945. This strike was a raid on enemy shipping at Aalesund, carried out by *Nairana*'s and *Puncher*'s air squadrons. In deteriorating weather conditions the 15 Wildcats, after feinting a minelaying operation were able to destroy two vessels alongside

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[140]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 1, DHist 87/48.

[141]Naval Staff History, The Development of British Naval Aviation 1919-1945, vol. II, Appendix XI.

a jetty and strafe a Wireless/Telegraphy station on Vickeroy Island. The only aircraft lost in this operation was one Barracuda from *Puncher* which had been flying anti-submarine patrols. All ships returned to Scapa Flow on March 29, 1945.[142]

Puncher sailed for her final operation "Newmarket" on April 6, 1945, but weather conditions prevented her and the other carriers from carrying out the operation. On April 12, 1945, *Puncher* returned to Scapa Flow. The following month, *Puncher* was transferred from the administration of the Home Fleet to that of Flag Officer Carrier Training, "to prepare for service in the Pacific."[143] This never came about and from August 1945 until December 1945, *Puncher* was used to ferry troops back and forth across the Atlantic. For *Puncher*'s service in Norwegian waters she received the battle honour "Norway 1945." More important to the Royal Canadian Navy, however, was the fact that the experience gained in the operation of both H.M.S. *Nabob* and *Puncher* proved invaluable when the time came to operate larger light fleet carriers like *Warrior* and *Magnificent*. Indeed, the manning of *Nabob* and *Puncher* provided the nucleus of trained personnel necessary for the Canadian navy to establish its own fleet air arm.

By the end of the war fifty-five officers of the Royal Canadian Navy and Reserves had undergone training as pilots and observers with the Royal Navy Fleet Air Arm. Also a limited number (approximately 225 men) were undergoing training as air fitters and air mechanics with the Fleet Air Arm. In addition twenty-five ratings with sea experience had undergone training as naval air gunners. Finally, approximately 600

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[142]Ibid.

[143]Canadian Ships with the Home Fleet 1943-45, Narrative A and B, p. 2, DHist 87/48.

ratings, all ranks were infiltrated into the Royal Navy to gain experience in light fleet carriers prior to Canada's acquisition of two light fleet carriers. These men would serve as the nucleus for Canada's naval air arm in the post-war period.

CHAPTER FIVE

HARD FOUGHT NEGOTIATIONS

> We are equally proud of the honour of demonstrating the value of the much maligned aircraft carrier . . .
>
> --Captain T. H. Troubridge
> Commander of the *Furious,* off Norway, May 1, 1940

The detailed and often lengthy negotiations that transpired between the Canadian naval staff, the British Admiralty, the Canadian Naval Mission Overseas, the United States Navy, the Canadian government, and within the various departments of the Royal Canadian Navy itself, for the acquisition of aircraft carriers is important to our understanding of the creation of the Royal Canadian Naval Air Arm late in 1945. It is necessary therefore to give a thorough account of those negotiations to place the birth of Canadian naval aviation in its proper context.

When Acting-Captain H. N. Lay assumed command of *Nabob* on October 15, 1943, approval had been given by the Naval Staff to partially man only one escort carrier. At a meeting of the Cabinet War Committee held on October 21, 1943, the results of the Joint Royal Canadian Navy-Royal Canadian Air Force Committee's study on the acquisition and operation of aircraft carriers was tabled. Although the joint committee favoured the acquisition and operation of carriers, the Cabinet War Committee was quite rightly less than enthusiastic about the venture. Prime Minister Mackenzie King, who chaired the meeting, observed:

> The report contained no estimate of costs, no reference to the time required to bring the carriers into effective service, and no indication of the source of

> replacement of personnel selected for aircrew duties. [Moreover], it was essential that the Services understand the necessity of avoiding commitments additional to such as were already included in their approved programmes. If new undertakings, such as the present one, involving additional outlays were regarded as imperative, then corresponding reductions must be made in other directions . . .[1]

The Naval Staff was not, at that time, prepared to reduce anti-submarine vessel construction in order to acquire the aircraft carriers. However, in less than a month the Naval Staff followed the Admiralty lead in reducing and/or cutting back its construction programme thereby freeing the personnel required to man the aircraft carriers. Accordingly, the Cabinet War Committee recommended that the Minister of National Defence for Naval Services further explore the recommendations of the joint committee, with a view to setting out the precise financial and manpower requirements involved.

Mackenzie King attempted to scare off the service chiefs by voicing his fear of a Co-operative Commonwealth Federation threat to the government if taxation were not decreased. In Mackenzie King's words, the Co-operative Commonwealth Federation would "take steps to reduce all the services and would see this was carried very far into the post-war years."[2] Mackenzie King was more concerned with the costs devolving on the Canadian taxpayer, and with the use of the War Measures Act to acquire ships intended for a postwar navy, than with the actual creation of a Royal Canadian Naval

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[1]Minutes of Cabinet War Committee, October 21, 1943, DHist MG 26/J4.

[2]W. A. B. Douglas, "Conflict and Innovation in the Royal Canadian Navy, 1939-1945," p. 213.

Air Service.[3] Indeed, Mackenzie King supported the idea of the Royal Canadian Navy having a fleet air arm as early as May of 1943. Following a Cabinet War Committee meeting the prime minister noted in his diary: "I would like to see the navy have this particular arm, [but] they would have to get it at the expense of something else."[4] The Naval Staff would have to find a way to satisfy the government's requirements as well as its own, to ensure that the Canadian navy did not finish the war as a small-ship navy.

The first cost-estimate for acquiring and operating two escort carriers pointed out that it would cost approximately 43 million dollars to acquire two carriers, plus one naval air station and repair yard. The bulk of the funds (26 million) would cover the initial purchase of two Kaiser-built escort carriers. The carriers themselves could be purchased for $7,500,000 (each) in United States funds but a further one million dollars would be needed to bring the carriers up to Admiralty specifications.[5] The balance included such expenditures as: the initial cost of the aircraft ($5,872,670), annual personnel cost, flying and non-flying ($4,741,038) per year, plus the annual cost of maintaining the carriers ($1,312,266). This estimate was based on Acting-Captain Lay's report in which he called for 4,383 officers and men, to man and support two escort

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[3]King Diary, November 10, 1943, and November 27, 1943, DHist MG 26/J13.

[4]King Diary, October 21, 1943, DHist MG 26/J13.

[5]Lieutenant-Commander J. S. Stead to the Minister for Naval Services, Re: Royal Canadian Naval Air Service--Estimate, dated October 26, 1943, file no. M.S. 1084-1-3, RG 24 83-84/16, Box 575, file 1700-913, Part A, P.A.C.

carriers.[6] This figure also included administrative personnel. The aforementioned figure, however, was reduced substantially by Stead as a result of the joint committee's recommendation which stipulated that the Canadian Navy could only operate two escort carriers and would have to rely on Royal Navy Fleet Air Arm maintenance and supply facilities. Lieutenant-Commander J. S. Stead was able to trim 2,407 ratings, all ranks, and nearly four million dollars from the original estimate. This, then, reduced the cost to $39,084,504.00 and left 1,976 officers and men to man two carriers, including the flying personnel and administrative staff.[7] The revised figures were communicated to the Minister for Naval Services on November 5, 1943.

On November 10, 1943, less than a month after Lay was appointed in command of *Nabob* the subject of acquiring two escort carriers was raised again at the Cabinet War Committee meeting. Once again Mackenzie King reiterated his previous argument pointing out that:

> The government were not justified in employing their wartime powers to authorize expenditures which were primarily related to the post-war period. Proposals of this character should be deferred until after the war . . . In future, only such expenditures as were absolutely essential to the successful prosecution of the war should be proposed.[8]

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[6]The figure of 4,383 officers and men would also allow the Royal Canadian Navy to acquire 225 aircraft, four small naval air stations and two repair yards. Acting-Captain H. N. Lay's Report on the Formation of a Royal Canadian Naval Air Service, dated August 27, 1943, p. 27, RG 24 83-84/167, Box 575, file 1700-913, Part A, P.A.C.

[7]Lieutenant-Commander J. S. Stead to the Minister for Naval Services, Re: Royal Canadian Naval Air Service Estimate, dated November 5, 1943, file M.S. 1084-1-3, RG 24 83-84/167, Box 575, file 1700-913, Part B, P.A.C.

[8]Minutes of the Cabinet War Committee, November 10, 1943, DHist MG 26/J4.

The Honourable Angus L. Macdonald, Minister for Naval Services, was fully aware of the need to acquire these vessels prior to the cessation of hostilities. Consequently, he agreed to reconsider the cost involved. In his words, "it might be possible to offset these expenditures by reducing the naval shipbuilding programme in other directions."[9] As a result of the minister's proposal the Cabinet War Committee agreed to postpone their decision until that option had been fully explored. By the end of 1943 the Royal Canadian Navy had expanded to 40,000 men and approximately 200 warships. The reduction of the escort building programme (based on British Admiralty appreciations) resulted in the cancellation of 41 frigates and 11 corvettes. The resulting manpower surplus allowed the Canadian navy to man other types of ships and led to the balanced fleet.

In the interim, plans were proceeding apace for the postwar fleet. The first paper submitted by Lieutenant G. F. Todd, Head of the Policy and Strategy Section of the Directorate of Plans on November 17, 1943, addressed "The Post-War Canadian Navy." Todd's first paper was based on recent events at sea and therefore represented the ideal composition of the post-war navy. It did not, however, reflect the political and economic realities which would soon follow. It represented the ideal composition of the postwar Canadian fleet, and outlined eight tasks:

(a) To maintain command of the oceans adjacent to Canada, Newfoundland and Labrador, with the assistance of the Royal Canadian Air Force,

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[9]Ibid. The Chief of the Naval Staff, Vice-Admiral Percy Nelles, who was not present at the meeting wrote later that he felt the navy had missed their opportunity to establish a naval air arm owing to the government's reluctance to assume any commitments. As cited in Chief of the Naval Staff's memorandum to the Minister for Naval Services, dated November 13, 1943, RG 24 83-84/167, Box 575, file 1700-913, Part B, P.A.C.

against all attacks except sustained battleship attacks launched by major naval powers.

(b) To contribute to the maintenance of Imperial sea communications in proportion to Canadian resources, and not less than to the extent of providing trade protection forces proportionate to the size of Canada's merchant marine.

(c) To contribute assistance to the joint defence of the oceans adjacent to North America.

(d) To protect Canadian shipping proceeding on its lawful purposes and to ensure the preservation of trade routes vital to Canada in the event of passage on the high seas being rendered dangerous by the outbreak of war between two or more foreign powers.

(e) To prevent the commission of unneutral acts by foreign belligerents in Canadian territorial waters.

(f) To support national policies and interests generally.

(g) To contribute to post-hostilities policing of defeated enemy countries.

(h) To contribute to post-hostilities minesweeping.[10]

In a sense, Todd set up these tasks in order to build a fleet around what he perceived to be Canada's role in the postwar era. He stated that,

> there is evidence that the government desires that Canada should be accorded increasing recognition as a growing power in world affairs, and particularly in hemispheric affairs. In this latter connection, it is the hope of Canadian diplomacy that Canada may prove to be the link between the Western Hemisphere and the British Empire. . . . To obtain the prestige and recognition of status which it [Canada] thus seeks, it is essential that Canada should have as strong a navy as possible.[11]

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[10]"The Post-War Canadian Navy," most secret memorandum prepared by Lieutenant G. F. Todd, Acting Director of Plans, dated November 17, 1943, file no. N.S. 1017-10-34, p. 1, DHist Naval Policy 1650-1, vol. II.

[11]Ibid., p. 2.

Todd also stressed the maintenance of imperial ties so as not to fall more than ever under the shadow of the United States. Todd did not imply that Canada would unreservedly place her navy under British control. Rather it was intended that Canada would assume the role of a middle power.

To meet the aforementioned tasks, Todd envisaged a navy consisting of:

> Five cruisers of at least the "Fiji" class, two light fleet aircraft carriers of the "Glory" class, 27 fleet destroyers, including three flotilla leaders, 16 frigates, and 12 Algerine or diesel Bangor minesweepers.[12]

The argument for the acquisition of two light fleet carriers was the same argument put forward by Acting-Captain Lay three months previously, namely: that air cover was vital in most naval operations and that owing to their limited range shore-based aircraft were limited to operations in home waters. Todd, therefore, recommended the acquisition of two light fleet carriers. The "Glory" class was recommended, as being the smallest fleet carrier likely to prove satisfactory, and two carriers were recommended so that at least one may be available for sea duty. These carriers were approximately 14,000 tons and were capable of operating up to 30 aircraft as opposed to the 18 aircraft which could operate from an escort carrier.[13] It is noteworthy that Todd also advocated that the postwar merchant navy should include some vessels suitable for rapid conversion to escort carriers in the event of war.

Todd estimated that the aforementioned fleet would require a total personnel of approximately 28,000 ratings, all ranks, including 6,000 for naval aviation. The

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[12]Ibid., p. 11.

[13]Ibid.

composition of the naval air side was as follows:

Air Branch at Naval Service Headquarters	249
Air Staff, Atlantic and Pacific Command	36
Two Light Fleet Carriers - General Service	1,268
- Ship's Staff (Air)	218
Four Naval Air Stations - General Service	876
- Air Duties	930
Two Naval Air Repair Yards - Air Duties	674
Three Squadrons of 9 Martlets each	231
Three Squadrons of 12 Tarpons each	414
Four miscellaneous Squadrons	209
	5,105
Add: Two-thirds of Ships' Companies of Carriers to allow for naval shore requirements	845
	5,950[14]

The cost of the fleet was estimated by Todd to be $50,000,000, excluding the naval air service. The cost for a naval air arm was approximately $20,000,000 thus bringing the total annual expenditure to $70,000,000.[15] Todd concluded his report on the postwar navy by stressing that, the Royal Canadian Navy should acquire these vessels prior to the end of the war before political and economic retrenchment reduced the fleet to a small-ship navy.

Acting-Captain Lay envisaged a postwar navy of similar size to that of Todd, albeit with a different emphasis. Using the Royal Navy's Fleet Air Arm as his model, Lay began by noting that the air personnel required for air duties in the Royal Navy amounted to 45,000 or one-tenth of the total personnel. He further observed that it was expected that this number would continue to rise and might by the end of the war

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[14]Ibid., p. 14.

[15]Ibid., p. 16.

constitute one-third or even one-half of the total personnel for the Royal Navy.[16] Lay then suggested that if the Royal Canadian Navy comprised 30,000 men then fully one-third (10,000 men) should be directed to specialize in air duties. According to Lay this would allow the Royal Canadian Naval Air Service to provide flying and maintenance personnel for at least ten escort carriers.[17] Lay's primary concern was the creation of a Canadian naval air arm. This explains his recommendation to acquire escort carriers which were easier and cheaper to build than either the fleet or light fleet carriers. He did suggest, however, that the Royal Canadian Navy consider the acquisition of either the fleet or light flight carriers in the near future depending of course on the role of the navy and in light of developments in international affairs.[18]

The Chief of the Naval Staff had directed the Directorate of Plans to submit a second paper along with the first containing recommendations for a balanced postwar navy having a maximum complement of 12,000 men. The second paper was meant to be read in conjunction with the first in order to compare what the navy required to meet the strategic tasks set out in Todd's first paper, with the fleet which the government, due to economic and political considerations, might possibly approve.[19] In

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[16]Acting-Captain H. N. Lay's Report on the Formation of a Royal Canadian Air Service, dated August 27, 1943, p. 23, RG 24 83-84/167, Box 575, file 1700-913, Part A, P.A.C.

[17]Ibid.

[18]Ibid.

[19]"The Post-War Canadian Navy," most secret memorandum prepared by G. F. Todd, Acting Director of Plans, dated November 17, 1943, file no. M.S. 1017-10-34, p. 1, DHist Naval Policy 1650-1, vol. II.

light of postwar constraints, Todd recommended a navy which comprised the following:

> One squadron of four heavy cruisers. Two light fleet aircraft carriers, one flotilla of nine fleet destroyers, including a flotilla leader and auxiliary craft as necessary.[20]

This was a reduction of two flotillas of destroyers, a cruiser, two groups of frigates, the minesweepers, as well as a suitable reduction in miscellaneous craft.

This reduction in the fleet would have greatly reduced its ability to carry out the tasks set forth in Todd's first paper. According to Todd not only would the fleet be reduced to a one-ocean navy "but the mobility of this fleet would be seriously impaired through the necessity imposed on it, by the lack of other warships, of remaining within reasonable range of the coasts they defend."[21] In addition, the reduction of escort vessels to maintain Imperial sea communications would result in reduced efficiency in anti-submarine warfare. Moreover, these aforementioned deficiencies would mean that Canada would have to rely increasingly on the United States Navy and the other Empire navies for the defence of Canada, and the maintenance of Imperial sea communications.[22]

Insofar as Canadian naval aviation was concerned, Todd reduced the number of personnel from 6,000 to 2,585, all ranks. Most of the reductions took place on the maintenance and administrative side, although there were some reductions in the air crews. In all likelihood one of the carriers would have been reduced to a care and

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[20]Ibid.

[21]Ibid., p. 2.

[22]Ibid., p. 3.

maintenance role under this second plan.

> In November 1943 the new Director of Plans, Captain G. R. Miles,
>
> was asked to draw up a further post-war naval plan, this time based upon 15,000 men. Vice-Admiral Nelles considered that figure as the highest possible complement for post-war permanent force personnel that the government could afford.[23]

This third plan was considered the maximum ceiling for personnel, whereas Todd's plan of 12,000 man force was considered as the minimum strength postwar navy desirable. The postwar navy recommended under these circumstances was as follows:

> One squadron of four heavy cruisers.
> Two light fleet aircraft carriers.
> Two flotillas of eight fleet destroyers.
> One flotilla of six frigates.
> One flotilla of six Bangor minesweepers or
> four Algerines.[24]

Although the total complement of the Navy had increased by 3,000 men and the size of the fleet had expanded to include another seven destroyers, it was achieved at the expense of the naval air arm. Only 1,268 ratings, all ranks, were allocated to the fleet air arm and all of these were considered general service personnel. Captain Miles had cut adrift 854 air personnel, 218 air staff for the carriers and 245 personnel

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[23]Memorandum from Director of Plans on December 31, 1943, referring to the 217th Naval Staff Meeting, December 27, 1943, concerning the post-war navy, N.S.S. 1017-10-34, RG 24, 3844, vol. I, as cited in Jeffrey K. Wright, The "Canadianists": A Desire for a "Small-Fleet" Royal Canadian Navy, p. 47.

[24]The Post-War Canadian Navy, A Second Supplementary Paper Outlining a Post-War Navy with a Maximum Complement of 15,000 men, prepared by Captain G. R. Miles, Director of Plans, dated December 23, 1943, file no. M.S. 1017-10-34, p. 1, DHist 1650-1 Naval Policy, vol. III.

allocated for the repair yards, Naval Service Headquarters, and the commands. It would now be necessary for the Royal Canadian Air Force "to assist in meeting the shore requirements of the Royal Canadian Naval Air Service and possibly supply the aircraft and flying and maintenance personnel."[25] The proposed increase in the postwar complement from 12,000 to 15,000 eliminated many, but not all, of the objections and limitations related to the 12,000 man force. The improvements were such, however, that the Chief of the Naval Staff, directed that the figure of 15,000 men be considered the firm recommendation of the Naval Staff for the postwar navy.[26] Although the size and composition of the postwar navy had been approved in principle by the Naval Staff the exact details as to the composition of a naval air arm had, as yet, to be determined.

The subject of acquiring escort carriers surfaced again at the Cabinet War Committee meeting on December 16, 1943. This time, however, the Naval Staff had agreed to cut back on its shipbuilding programme in order to obtain the carriers. Two factors prevented the Cabinet War Committee from ruling in favour of the navy's proposal. Firstly, it was pointed out that the United States government could not transfer these warships to Canada by sale because of lend-lease complications. Consequently the Honourable Angus L. Macdonald suggested that Canada provide the general service ratings in order to man the two escort carriers thereby gaining valuable experience in the operation of carriers. The Cabinet War Committee, concerned over the fact that Canada might be accused of accepting lend-lease by "back-door" methods,

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[25]Ibid.

[26]Memorandum, dated December 31, 1943, as cited in Jeffrey K. Wright, The "Canadianists": A Desire for a "Small-Fleet" Royal Canadian Navy, p. 48.

did not support Macdonald's recommendation. Secondly, the Prime Minister was still opposed to what he perceived as large postwar commitments for the navy. After further discussion of Macdonald's proposal, the Cabinet War Committee agreed to postpone their decision pending further investigation.[27]

The time, however, was fast approaching when H.M.S. *Nabob* would be ready to sail and the Naval Staff continued to press for a decision regarding the manning of two escort carriers. The Canadian government had given permission for the Royal Canadian Navy to partially man one escort carrier and the Naval Staff was anxious to provide enough general service ratings to man two aircraft carriers. It was under these circumstances that the Minister for Naval Services raised the subject of escort carriers at a Cabinet War Committee meeting on January 12, 1944, "just one week after that body had come to the conclusion that vessels of this class should not be manned by the Royal Canadian Navy."[28] The Minister urged that the whole question should be reconsidered,

> pointing out that no suitable British-built carriers would be available for at least a year, and that in the interval, if Canadian personnel were to obtain any experience as complete naval air units, it would have to be in C.V.E.'s (escort carriers). If two [escort carriers] were manned and operated, apart from their planes and air crew, which could be supplied by the Royal Navy, the cost for both ships would amount to $4,000,000 a year and each crew would number nine hundred. Manning would not be a problem because the extensive reductions made in escort building had left the navy with a surplus of more than adequate for this commitment.[29]

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[27]Minutes of Cabinet War Committee, January 5, 1944, DHist MG 26/J4.

[28]Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 98.

[29]Minutes of the Cabinet War Committee, January 1 and January 12, 1944, N.S. 8020-511 (2) as cited in Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 98.

The Naval Staff's persistence finally paid off and after remarkably little discussion on January 12, 1944, the Cabinet War Committee approved in principle the manning of two Royal Navy escort carriers. The first aircraft carrier was H.M.S. *Nabob* which was due to begin her work up programme; the other, a sister ship, H.M.S. *Puncher.* The way was now clear for the Royal Canadian Navy to obtain her own naval air arm.

In spite of the difficulties experienced in attempting to commission the two escort carriers as H.M.C. Ships, negotiations for their transfer continued throughout 1944. Naval Service Headquarters had asked the Admiralty to approach the United States Navy Department regarding the commissioning of the escort carriers as H.M.C. Ships. Although Naval Service Headquarters did attach the following proviso:

> It is presumed your approach to the United States Navy will be to obtain permission for the Royal Canadian Navy to commission and man naval vessels on lend-lease to the Royal Navy without involving Canada in lend-lease.[30]

Although Canada was eligible for lend-lease aid she did not request and did not receive direct lend-lease assistance from the United States during the war. That she did not participate was doubtless largely because of knowledge of the complexity of the regulations governing the procurement of lend-lease supplies. In addition, contracts with the United States were providing Canada with an ever-increasing influx of American currency. This meant that there was no shortage of United States dollars to purchase

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[30]Most Secret Memorandum Regarding Admiralty Requests for Royal Canadian Navy Assistance in Manning Escort Carriers, dated December 17, 1943, RG 24, vol. 11963, file MS-69, P.A.C.

American goods.[31] More important, perhaps, was the fact that in order for Canada to receive lend-lease supplies she would have to be either bankrupt or have sold all of her assets in the United States.[32] Canada was reluctant to sell her assets and she was not bankrupt.

However, this situation did not prevent Canada from pursuing other avenues in order to commission the two escort carriers as H.M.C. Ships. Canada had two possible options. The first involved sub-leasing the carriers from the Royal Navy. It had been learned that both H.M.S. *Nabob* and *Puncher* were built by naval appropriations and leased under Public Law No. 1 and not under lend-lease arrangements as was previously believed. The United States Public Law No. 1, which was passed by the House of Representatives on February 19, 1943, gave "the authority to dispose of by lease (but not by sale) of vessels built under naval appropriations."[33] The Canadian government did not as yet have an official policy regarding Public Law No. 1 and therefore pursued this option to acquire the escort carriers. It was pointed out subsequently by Vice-Admiral, J. W. S. Dorling, British Admiralty Supply Representative, Washington, that:

> Should the vessels be commissioned by Canada, however, or be designated H.M.C.S. the United States Navy Department would regard this as a transfer of the vessel to the Canadian government which would require to be legalized

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[31]C. Cecil Lingard and Reginald G. Trotter, Canada in World Affairs: September 1941 to May 1944 (Toronto: Oxford University Press, 1950), p. 84.

[32]Desmond Morton, Canada and War: A Military and Political History (Toronto: Butterworth and Company Limited, 1931), p. 113.

[33]Notes by British Admiralty Supply Representative, Washington, on Canadian Government Lend-Lease Policy vis-a-vis The Transfer of H.M.S. *Nabob,* dated March 17, 1944, RG 24, vol. 11972, file 261-11, P.A.C.

> by cancelling the existing lease to the United Kingdom and entering into a new lease with the government of Canada.[34]

In addition, it was pointed out that Public Law No. 1 was considered to be an amendment to the Lend-Lease Bill, which prevented the transfer of the carriers to Canada.

The second option was very similar to that of the first. Canada had recently acquired 24 landing craft infantry (large) in preparation for the invasion of Europe. These vessels were originally built for the Royal Navy and acquired through lend-lease but were subsequently manned and commissioned as H.M.C. Ships.[35] The Canadian government hoped that a similar arrangement could be made with regards to the carriers. Captain Miles, Director of Plans, in a memorandum to Captain Wallace B. Creery, Assistant Chief of the Naval Staff, suggested on June 23, 1944, that:

> If the transaction took the form of sub-lease from the United Kingdom, the ships themselves would be lend-lease materials by contract between the United States and the United Kingdom. But from the Canadian point of view they would be loans of property from the United Kingdom, comparable with the loans of frigates, corvettes and Bangors which already exist.[36]

Captain Miles therefore recommended that:

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[34]Ibid.

[35]These vessels were manned by the Canadian Navy to assist the Royal Navy with their manpower shortage and to give the navy a more prominent role in the invasion of Europe. One of the conditions of commissioning these vessels as H.M.C. Ships was that they were returned to the Royal Navy following the completion of operation "Neptune."

[36]Memorandum from Captain R. Miles, Director of Plans, to Captain Wallace B. Creery, Assistant Chief of the Naval Staff, dated June 23, 1944, file no. N.S.S. 1017-10-61, RG 24 83-84/167, vol. 3614, file 8020-500 (R.R., vol. I), P.A.C.

(a) The ships become temporarily units of the Royal Canadian Navy.

(b) The loan is distinct from lend-lease procedure . . .[37]

It was hoped that a similar exception to the lend-lease law (as was afforded with the landing craft) would be extended to the escort carriers. This was not to be. The Department of External Affairs informed the Canadian Embassy in Washington that:

> The transfer of the landing craft infantry (large) to the Royal Canadian Navy was for use in a single operation ("Neptune"). This limitation as to time and use could hardly apply to the transfer of escort aircraft carriers. If we [Canada] accepted them from the United States we should become recipients of lend-lease assistance.[38]

Moreover, the conditions which had applied to the transfer of the landing craft would not hold in the case of the carriers. The following conditions were placed on the transfer of the former by the Cabinet War Committee:

(a) That the craft were commissioned as H.M.C. Ships.

(b) That the craft were borrowed only for the general operation in view rather than for the duration of the war.

(c) That the craft in commission were returned at the end of the period of the loan.

(d) That there was no obligation to replace losses.

(e) That the transaction was distinct from Lend-Lease.

(f) That Canada assumed responsibility for maintenance and operational

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[37]Ibid.

[38]Secret Cypher from External Affairs to the Canadian Embassy, Washington, dated June 16, 1944, RG 24, vol. 11972, file 261-11, P.A.C.

costs of the craft.[39]

The Secretary of the United States Navy would not release the carriers under these circumstances as they were not considered to be expendable and further because the Royal Canadian Navy wanted them for the duration of the war. Finally, the Director of the Naval Air Division, Lieutenant-Commander J. S. Stead, expressed the opinion that:

> no [further] action should be taken at the present time which would jeopardize the ultimate chance to acquire fleet carriers and [a] Royal Canadian Naval Fleet Air Arm and, therefore, it would appear questionable to take further steps to obtain the transfer of H.M.S. *Nabob* and *Puncher* for commissioning as H.M.C. Ships.[40]

In spite of Stead's recommendation the Naval Board felt that every effort should be made to commission the carriers as H.M.C. Ships. Consequently negotiations continued with the Admiralty until late August, but to no avail. With the loss of H.M.S. *Nabob* on August 22, 1944, it was decided to concentrate on the acquisition of the light fleet carriers instead of the escort carriers.

While negotiations were proceeding between Naval Service Headquarters and the Admiralty for the acquisition of *Nabob* and *Puncher,* lobbying for the creation of a naval air division at Naval Service Headquarters continued. Lieutenant-Commander J. S. Stead, Staff Officer (Air) in a memorandum dated February 17, 1944, called for the

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[39]Extract from the Official Minutes of the Munitions Assignment Committee (Navy), dated January 10, 1944, RG 24, vol. 11972, file 261-11, P.A.C.

[40]Minutes of the Naval Board, May 29, 1944, re: Director of the Naval Air Division's memorandum on the Air Activities--Royal Canadian Navy, dated May 19, 1944, MS 1084-1-3, RG 234 83-84/167, Box 575, file 1700-913, Part B, P.A.C.

immediate establishment of such a division at headquarters to administer the growing problems related to naval air matters. He further recommended that the naval air division should combine staff functions and non-staff functions in order that progress could be maintained under one head during the initial stages of development.[41] Stead's recommendations were particularly important given the fact that the Canadian government had agreed to man two escort carriers on January 12, 1944. On March 27, 1944, the Naval Staff recommended to the Naval Board that a Naval Air Division be established at Naval Service Headquarters. The matter was taken under advisement and on March 31, 1944, the Naval Board approved the formation of an air section (but not a Fleet Air Arm) under a Director of Naval Air Division. The Directorate of Naval Air Division officially came into being on April 1, 1944, and Acting-Commander J. S. Stead was appointed as the director.

The decision to create a naval air division instead of a fleet air arm would have a serious impact on this fledgling sub-section of the service. Even though naval air matters would receive greater recognition there was no direct staff representation on the Naval Board until 1948. In addition, the Director of Naval Air Division was responsible to the Assistant Chief of the Naval Staff who was not a member of the Naval Board either.[42] Furthermore the personnel associated with naval air matters were scattered

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[41]Memorandum prepared by Lieutenant-Commander J. S. Stead, dated February 17, 1944, file no. 1048-1-3 as cited in Director of Naval Air Division's memorandum to the Assistant Chief of the Naval Staff, dated November 24, 1944, file no. N.S.S. 11700-913 F.D. 819 (Staff), RG 234 83-84/167, Box 575, file 1700-913, Part C, P.A.C.

[42]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, Appendix A. The Assistant Chief of the Naval Staff became a member of the Naval Board in 1946.

throughout the three branches (Staff, Administration and Supply, Personnel) of the service. Consequently the officers were required to wear two hats at the same time, making it difficult to become specialists in naval air matters. To make matters worse no opportunity was taken to infiltrate key Royal Navy or United States Navy aviation specialists into the Royal Canadian Navy during this crucial period in the development of the Royal Canadian Naval Air Service. Acting-Captain Lay suggested in his report that one Captain, six Commanders, one Paymaster Commander and one Commander (Engineering) would have to be borrowed from the Royal Navy. Lay even recommended three particular officers who would be especially valuable in providing the necessary assistance. He singled out "Commodore Huskisson for Chief of Naval Air Service and Paymaster Commander W. E. Brockman, as Director of Naval Stores and Equipment and finally Captain C. R. V. Pugh for one of the other three Directorates."[43] As late as September 1944 the Acting Director of Naval Air Division, Acting Lieutenant-Commander (Engineering) E. E. Robertson, was still requesting that experienced Royal Navy officers be lent to the Royal Canadian Navy. Despite the length of Robertson's request, it is worthy of replication. In connection with air branch personnel,

> generally, the Naval Air Division is experiencing some difficulty in planning our requirements intelligently. With our present staff it is quite impossible to fulfill the broad scope of our terms of reference. It is hoped that early steps may be taken to accept [the] Admiralty's informal offer of the loan of four

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[43]Memorandum from Acting-Captain Lay to the Secretary of the Naval Board, dated September 1, 1943, RG 234 83-84/167, Box 575, file 1700-913, Part A, P.A.C. Lay called for five separate directorates to handle all matters relating to naval aviation. This would be reduced substantially owing to political and economic retrenchment. See Appendix II of his report for detailed outline of the air organization proposed at Naval Service Headquarters.

> experienced Royal Navy advisers; one air warfare expert, one aircraft maintenance and repair officer, one equipment officer, and one officer qualified in airfield and carrier requirements. It is visualized that these officers would act solely in an advisory capacity and would not formally constitute part of the Royal Canadian Navy's Naval Air Division.[44]

The situation was finally rectified in 1946, when the Royal Navy lent key officers to the Royal Canadian Navy to assist in the organization of the fleet air arm. In the interim the Naval Air Division had to make do with the officers that were available. Officers such as Acting-Captains Lay, DeWolf and Bidwell were certainly qualified naval officers who had had exposure to naval aviation but they were not experts in the field.

Further hindering the cause of naval aviation in general and the development of the Naval Air Division in particular were the terms of reference for the Director of the Naval Air Division. Essentially the director was to act as an adviser on all matters relating to naval aviation. As such he could not implement policy and he had no control over the other departments which had an impact on, not only the plans of the naval air division but the efficiency of the department as well. This state of affairs was reflected in the lack of continuity in the plans emanating from the various departments with regard to plans for the fleet air arm, as we shall see later. Compounding the problem further was the growing number of matters to be handled by the small staff. Their systemic problems had become so pronounced by the summer of 1944 that the Director of the Naval Air Divison called for a reorganization of the air section. Stead proposed that a separation of the Naval air Division's staff and non-staff functions take

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[44]"Policy on Training of Personnel for the Proposed Royal Canadian Naval Air Branch" memorandum prepared by the Acting Director of Naval Air Division to the Assistant Chief of the Naval Staff, dated September 8, 1944, file no. 11700-913 F.D. 117 (Staff), RG 24 83-84/167, Box 575, file 1700-913, Part B, P.A.C.

place, owing to the growth of administrative problems. He noted that these non-staff functions were "primarily concerned with the selection and training of maintenance personnel for the carriers and the many details required to put the now authorized training programme under way and to keep it going."[45] Stead further recommended that:

> The problems of the training of maintenance personnel, maintenance and repair of aircraft, air equipment and airfield and carrier requirements should be handled by a fifth member of the Naval Board similar to the Royal Navy's organization. This directorate would be known as Directorate of Aircraft Maintenance and Equipment, and the director would be responsible to the Chief of the Naval Staff for all questions relating to naval aircraft engineering and equipment. The director would, however, receive direction from the Naval Staff on matters of overall policy. This would allow the Naval Air Division to concentrate on matters of policy.[46]

Stead finally recommended that the Director of the Naval Air Division's position be altered from that of an advisor to a line officer able to formulate and execute policy. He envisaged the following functions:

(a) To establish general policy governing the development of a Canadian Naval Air Branch

(b) To establish, in conjunction with he appropriate Directors, staff

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[45]"Growth of Naval Air Division," memorandum from Director Naval Air Division to the Assistant Chief of the Naval Staff, dated November 24, 1944, file no. N.S.S. 11700-913 F.D. 819 (Staff), RG 24 83-84/167, Box 575, file 1700-913, Part C, P.A.C. The Naval Board approved the training of a nucleus of all personnel required to operate naval air squadrons, on May 29, 1944. By July 20, 1944, a total of 512 ratings had volunteered to train in air branch duties. See "Present Position of Royal Canadian Naval Air Branch," memorandum from Director Naval Air Division to Assistant Chief of the Naval Staff, dated July 20, 1944, file no. 11700-913 F.D. 165 (Staff), RG 24 83-84/167, Box 575, file 1700-913, Part B, P.A.C.

[46]Ibid. See Appendix VI for the proposed organizational changes within the Naval Air Division.

requirements for the naval air branch

(c) To implement such action as may be required as a result of approved policy or staff requirements for the Canadian Naval Air Branch.[47]

The Director would advise on the following matters: the development of naval air warfare and air warfare generally as it affected naval operations, the employment of naval aircraft and the carriers, and the tactical coordination between the Royal Canadian Navy and the Royal Canadian Air Force in combined operations.[48] These proposals were designed to advance Canadian naval aviation generally and would have proved beneficial when negotiations took place between the Royal Canadian Navy and the Royal Canadian Air Force over shore-based facilities. Unfortunately, Stead's recommendations were never acted upon and negotiations for a reorganization of the Naval Air Division dragged on until 1946. This delay was explained in part by the fact that the Canadian government did not approve the formation of a Canadian fleet air arm until late 1945.

While Lieutenant-Commander Stead wrestled with these internal problems, plans for the war against Japan and the composition of the postwar fleet continued apace. These plans were first set forth in a Plans Division memorandum on September 9, 1943. While the exact requirements remain unclear, the following amendments were suggested:

> [that] four cruisers of the Fiji class be obtained. One flotilla of fleet destroyers, plus one flotilla leader for Captain (Destroyers), and that parent ships for the fleet destroyers and escort vessels up to a maximum of three be

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[47]Ibid.

[48]Ibid.

provided.[49]

Intriguingly there was no mention of aircraft carriers. However, by January 1944, the composition of the fleet had altered considerably. The then Director of Plans, Captain G. R. Miles, envisaged:

> Two Royal Canadian Navy task forces for use against Japan, each consisting of two cruisers, one light fleet aircraft carrier and one flotilla of fleet destroyers. [In addition] a contribution of at least 30 percent of the anti-submarine escort forces should be provided by Canada. According to Canadian figures this involved 108 warships. [Finally] provision of two Landing Ship Infantry (medium), one anti-aircraft ship and 36 Landing Craft Infantry (large) were called for.[50]

Captain Miles also suggested that the Admiralty be informed as to the Royal Canadian Navy's plans, and that the possibility be explored of obtaining two light fleet carriers from the Admiralty in 1945. It remains unclear whether or not the Admiralty was informed formally on this matter.

Kealy and Russell have stated that the first official indication to the Admiralty that Canada was desirous of acquiring light fleet carriers came in the form of an aide memoire to the Chief of the Naval Mission Overseas, dated July 17, 1944.[51] However, G. F. Todd, Staff Officer to the Senior Canadian Flag Officer (Overseas), Vice-Admiral P. W. Nelles, met with Commander Fardell of Plans Division, Admiralty during February

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[49]Minutes of the Naval Staff, dated September 8, 1943, DHist 1000-100/3.

[50]Memorandum "Creation of Royal Canadian Navy Task Forces," from Director of Plans Division to the Assistant Chief of the Naval Staff, dated January 14, 1944, file no. 1057-1-4, DHist 1700-219 Naval Aviation (1940-1949).

[51]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 35.

1944, six months prior to the aide memoire, to discuss the acquisition of light fleet carriers. Todd was subsequently informed by Fardell that, as far as he [Fardell] was concerned, "there would be no difficulty about Canada getting the necessary ships, provided the Royal Canadian Navy was in a position to man them."[52] Clearly then the Admiralty was well aware of the Royal Canadian Navy's intentions well in advance of July 17, 1944.

By the spring of 1944, joint planning between the British government and the Dominions were under way for the war against Japan. At a Commonwealth conference in London from May 1 to May 16, 1944, "the Dominion Ministers learned that no combined master plan existed, and they discussed the matter in general terms."[53] At the same time a Canadian Joint Staff Mission began meeting with the British Chiefs of Staff, and on May 19, 1944, the latter decided to draw up a comprehensive plan for the deployment of Canadian naval forces in the Pacific war and for the postwar occupation of Europe. Prior to the circulation of the British Chiefs of Staff plans the Naval Assistant, Policy and Plans of the Canadian Naval Mission Overseas, Captain G. F. Todd, reported that as a result of discussions with Plans Division, Admiralty, the Royal Navy were prepared to consider the acquisition by the Royal Canadian Navy of

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[52]Report to Canadian Staff Flag Officer (Overseas) dated February 29, 1944, as cited in "History of Negotiations in London for Acquisition of Light Fleet Aircraft Carriers and Flotilla of Fleet Destroyers" prepared by Head of the Canadian Naval Mission Overseas, dated May 12, 1945, DHist 8020-147/25 Royal Navy Ships on Loan to Royal Canadian Navy.

[53]Chiefs of Staff Committee Minutes, dated June 7, 1944, as cited in Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 99.

two light fleet carriers as a long term proposition.[54] In spite of this decision, the Admiralty (as a result of the British Chiefs of Staff meetings), suggested in an aide memoire on June 14, 1944, that:

> [a] Royal Canadian Navy fleet consisting of two cruisers, two escort carriers [*Nabob* and *Puncher],* two "V" class fleet destroyers, and all the Canadian tribals for fleet work in the Pacific. . . .[55]

No reference was made in this aide memoire to the acquisition of light fleet carriers. The Admiralty's aide memoire was the subject of discussion at the next Naval Staff meeting on July 3, 1944. The Naval Staff concurred with Canadian Naval Mission Overseas' recommendations and instructed the latter to inform the Admiralty that Naval Service Headquarters envisaged the employment of two escort carriers which would subsequently be exchanged for two light fleet carriers in the war against Japan.[56]

The matter was taken up next by the Joint Planning Staff of the British Chiefs of Staff, who prepared a paper J.P.(44)176, in which it was recommended that the Canadian naval forces to be employed in the war against Japan should include *Nabob*

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[54]"Royal Canadian Navy Participation in the War AGainst Japan and in the Occupation of the European Continent" memorandum from Naval Assistant Policy and Plans to Deputy Head of Mission, dated May 27, 1944, CS-21, DHist 1650-1 Naval Policy (War Against Japan).

[55]Canadian Naval Mission Overseas to the Secretary of the Naval Board, dated June 14, 1944, as cited in Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 99.

[56]Minutes of the Naval Staff, dated July 3, 1944, DHist 1000-100/13.

and *Puncher* and an additional flotilla of fleet destroyers.[57] Once again there was no reference to the light fleet carriers. The Secretary of the Canadian Joint Staff Mission, in a letter dated August 7, 1944, to the British Chiefs of Staff:

> Drew their attention to the fact that the proposals contained in J.P.(44)176 did not take full cognizance of the recent informal exchange of views between Canadian Naval Mission Overseas and the Admiralty.[58]

Initially at least the British Chiefs of Staff were hesitant to act upon either the Canadian Naval Mission Overseas' aide memoire or the Secretary of the Canadian Joint Staff Mission's letter, since both were considered to be informal statements. In anticipation of the Naval Board approving the Naval Staff's recommendations, three signals were passed by the Admiralty through the Canadian Naval Mission Overseas to Naval Service Headquarters late in August 1944. The first signal 15160 from Canadian Naval Mission Overseas informed Naval Service Headquarters (unofficially) that Plans Division, Admiralty, was considering which fleet destroyers and which light fleet carriers would be made available for transfer to the Royal Canadian Navy. Two signals followed in rapid succession. On August 28, 1944, Canadian Naval Mission Overseas was able to inform Naval Service Headquarters that the first carrier "tentatively and unofficially allocated to the Canadian Navy was H.M.S. *Ocean* which does not complete until June

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[57]Report by the Joint Planning Staff of the British Chiefs of Staff on "The Employment of Canadian Forces After the Defeat of Germany," J.D.(44)176, dated July 24, 1944, DHist 1650-1 Naval Policy (War Against Japan).

[58]"History of Negotiations in London for Acquisition of Light Fleet Aircraft Carriers and Flotilla of Fleet Destroyers," prepared by Head of the Canadian Naval Mission Overseas, dated May 12, 1945, DHist 8020-147/25.

1945. . . ."[59] Three days later Canadian Naval Mission Overseas reported that Plans Division, Admiralty had produced a paper recommending that the Crescent Class destroyers and the light fleet carriers H.M. Ships *Ocean* and *Warrior* should be transferred to the Royal Canadian Navy.[60]

W. A. B. Douglas has suggested that the Canadian Naval Mission Overseas had little impact on the planning process in Ottawa, and further, that papers emanating from the Canadian Naval Mission Overseas enjoyed a cool reception in the nation's capital. That being the case, Douglas has intimated that one would have expected that the replacement of Nelles as Chief of the Naval Staff and of Todd as head of the policy and strategy branch of the Plans Directorate, to have resulted in a change of direction for Canadian naval planning. Douglas is quick to point out, however, that there was a change of emphasis, but not of direction, partly because the Naval Staff and Naval Board were now too firmly on course.[61] While this may have been the case in certain areas of Canadian naval planning, it certainly did not hold true insofar as planning for the fleet air arm was concerned. Indeed the Naval Staff were generally very supportive of the Canadian Naval Mission Overseas. On August 29, 1944, the Director of Plans, G. R. Miles, in a memorandum to the Assistant Chief of the Naval Staff, wrote:

> The proposals in Canadian Naval Mission Overseas' signal are sound and it is strongly recommended that they be implemented; in view of the loss of two

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[59]Canadian Naval Mission Overseas signal 281546B, dated August 28, 1944, RG 24 83-84/167, Box 575, file 1700-913, Part B, P.A.C.

[60]Canadian Naval Mission Overseas signal 311603/8/44, dated August 31, 1944, RG 24 83-84/167, Box 575, file 1700-913, Part B, P.A.C.

[61]W. A. B. Douglas, "Conflict and Innovation in the Royal Canadian Navy, 1939-1945," pp. 224-26.

> months training by *Nabob*'s ship's company it is recommended that Admiralty be asked to work up *Puncher* and bring her to an operational state of efficiency at the earliest possible date.[62]

The Chief of the Naval Staff concurred, suggesting that negotiations proceed along the lines suggested in the Canadian Naval Mission Overseas' signal and the Director of Plans recommendations.

Insofar as the actual planning for the fleet air arm was concerned the Canadian Naval Mission Overseas and Canadian naval authorities were on virtually the same course. When it was learned in late August 1944 that H.M.S. *Nabob* was to be cannibalized, the Canadian Naval Mission Overseas suggested that Canadian personnel (ex-*Nabob*) should man H.M.S. *Vengeance* which was expected to complete in February 1945.[63] This suggestion was repeated later by the Director of the Naval Air Division, Commander J. S. Stead, who was in London at that time. Both of these recommendations were rejected.[64] The change of emphasis to which Douglas refers was certainly true as it relates to the planned composition of the fleet air arm. The documents emanating from the Canadian Naval Mission Overseas made continual reference to the acquisition of two light fleet aircraft carriers. The plans originating from Naval Service

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[62]Memorandum "Manning of Aircraft Carriers by the Royal Canadian Navy," from the Director of Plans to the Assistant Chief of the Naval Staff, dated August 29, 1944, file no. N.S.S. 1017-10-61, DHist 8020-147/25.

[63]Unsigned document "Replacement for H.M.S. *Nabob*," presumably from the Canadian Naval Mission Overseas, dated August 31, 1944, DHist 8020-147/25. This suggestion came about as a result of conversations with Admiral Boyd, Fifth Sea Lord and Chief of Naval Air Equipment.

[64]"History of Negotiations in London for Acquisition of Light Fleet Aircraft Carriers and Flotilla of Fleet Destroyers," prepared by the Head of the Canadian Naval Mission Overseas, dated May 12, 1945, DHist 8020-147/25.

Headquarters envisaged a fleet air arm consisting of up to six aircraft carriers. This suggests the Canadian Naval Mission Overseas was better appraised and more politically prescient in their observations than Naval Service Headquarters which failed to take into account the political and economic retrenchment certain to follow the war.

Moreover, the plans set forth by the various departments within Naval Service Headquarters lacked continuity in that they failed to present a single cohesive proposal for the composition of the fleet air arm. For example, the Director, Signals Division, Captain G. A. Worth, in a memorandum to the Assistant Chief of the Naval Staff, on August 22, 1944, wrote:

> (a) That if the Royal Canadian Navy is to have any fighting value, it must build up a carrier force.
>
> (b) That a fleet air arm is an essential [sic], and that this should be treated as a major component of the Royal Canadian Navy and not merely as an auxiliary service.
>
> (c) That the economical fighting fleet should be built up of equal numbers of cruisers and carriers to at least six of each. Less than this number will ensure that H.M.C. Ships will, as heretofore, be allocated for duty under Allied Flag Officers and not work as a unit. . . .[65]

Captain Worth further observed that in order for the Royal Canadian Navy to have an effective and up to date carrier task force, Canada should acquire either four fleet carriers or six light fleet carriers. This appears to be the first indication that the Royal Canadian Navy was considering the acquisition and operation of fleet carriers as distinct

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[65]Memorandum "Notes on the Requirements for a Fleet Air Arm in the Royal Canadian Navy," from Director, Signals Division, to the Assistant Chief of the Naval Staff, dated August 22, 1944, file no. 11700-913 F.D. 749 (Staff), RG 24 83-84/167, Box 575, file 1700-913, Part B, P.A.C.

from light fleet carriers.

The next memorandum to circulate was prepared by the Director of Plans, Captain G. R. Miles. He began by reviewing the need for and hence the value of air power to modern naval operations, paying particular attention to the fleet air arm as a component of air power. Miles based his observations on recent experiences at sea and the previous arguments set forth by other Canadian naval officers such as Lay, DeWolf, Stead and Todd. Captain Miles was of the opinion that one carrier per task force was inadequate because a single carrier did not provide enough air strength. Accordingly he advocated a second carrier for each task force.[66] Based on this appreciation he proposed the options, outlined below:

	Plan A Two light fleet carriers (excluding reserve fleet)	Plan B Four light fleet carriers (excluding reserve fleet)
1. Afloat (including squadrons)	2,022	4,004
2. Spare squadrons (one for each type for each two carriers)	219	438
3. Shore Stations (one on each coast)	942	942
4. Administrative Staff at Naval Service Headquarters and the Commands	132	160 (approx.)
Total	3,315	5,584[67]

Captain Miles considered that the second plan, "should be accepted as the

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[66]Memorandum "Royal Canadian Navy Task Force," from Director of Plans to the Assistant Chief of the Naval Staff, dated August 24, 1944, file no. 11700-913, DHist 1700-219 Naval Aviation (1940-1949).

[67]Ibid.

ultimate Royal Canadian Navy target [and] at a subsequent date consideration may be given to the desirability of adding a fifth and sixth carrier to the reserve fleet target."[68] In the interim he suggested that the first option (Plan A) should be exercized owing to time constraints. This was an ironic comment indeed, when one considers that the basic foundations for the acquisition of two light fleet carriers had been laid down almost nine months before in Todd's paper, at the instructions of the then Chief of the Naval Staff, Vice-Admiral P. W. Nelles.

Just prior to the departure of the First Sea Lord, Admiral of the Fleet Sir Andrew B. Cunningham, for the second Quebec Conference, an aide memoire was handed to him by Vice-Admiral P. W. Nelles. The aide memoire reiterated that the naval forces recommended by the Naval Staff to the Naval Board for the war against Japan "should include two escort carriers subsequently to be exchanged for two light fleet carriers and an additional full flotilla of fleet destroyers."[69] Presumably Nelles was attempting to get the British to approach the Canadian government with a formal request for the inclusion of these warships in the Pacific War. This ploy had worked at the previous Quebec Conference and led to the Canadian government's approval to man two escort carriers. Unfortunately, at a special meeting in Quebec on September 13, 1944, the Cabinet War Committee decided:

> . . . that Canadian military forces should participate, as a matter of preference, in the war against Japan in operational theatres of direct interest to Canada as

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[68]Ibid.

[69]Aide memoire for the First Sea Lord on the Employment of Canadian Naval Forces after the Defeat of Germany, prepared by the Head of the Canadian Naval Mission Overseas, dated August 31, 1944, file no. C.S. 21 (PP 8/44), DHist 1650-1 Naval Policy.

> a North American nation, for example in the North or Central Pacific, rather than in more remote areas such as Southeast Asia.[70]

On September 22, 1944, the Minister for Naval Services presented the Canadian navy's programme to the Cabinet War Committee:

> 20,258 men afloat for service in the Pacific, some 30,000 ashore, and some 3,000 more for Europe. The opinion was immediately expressed that the figures should be drastically cut, to reduce the burden on both manpower and finance.[71]

On October 11, 1944, the Minister tabled a revised estimate before the Cabinet War Committee, which called for:

> 8,812 Canadian naval personnel for the Central Pacific, to serve with the British force under Admiral Nimitz [United States Navy], manning two cruisers, one anti-aircraft ship and some 40 frigates and corvettes; while two light fleet carriers and eight destroyers (4,600 personnel) would be added later.[72]

The Cabinet War Committee subsequently approved these proposals which involved 13,412 ratings, all ranks. Although this represented a reduction of more than 50 per cent of the Naval Staff's original proposal, it at least implied approval for the acquisition of the light fleet carriers.[73] The Admiralty were less than enthusiastic about the

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[70]Minutes of the Cabinet War Committee, dated September 13, 1944, as cited in Gilbert Norman Tucker, The Naval Service of Canada, vol. II, p. 100.

[71]C. P. Stacey, Arms, Men and Governments: The War Policies of Canada 1939-1945, p. 60.

[72]Ibid.

[73]Prior to the second Quebec Conference the Naval Staff had recommended the immediate opening of formal negotiations for two light fleet carriers. Minutes of the Naval Staff, dated September 5, 1944, as cited in Gilbert Norman Tucker, The Naval

decisions reached at Quebec, as they wished to maintain flexibility in the deployment of the carriers.

On October 16, 1944, the Canadian Naval Mission Overseas reported that the decisions reached at Quebec were making it difficult to obtain the First Sea Lord's approval of the proposed transfer of the carriers to the Royal Canadian Navy.[74] In addition, the ceiling that was imposed forced the Canadian navy to set up a priority system for manning the ships destined for the Pacific War. To counter the Admiralty's attitude, Todd:

> took the line in discussions with Plans Division, [Admiralty] and the Military Branch, that if the Admiralty was interested in the Royal Canadian Navy possessing a post-war navy that would include aircraft carriers, it was essential that the [carriers] should be acquired . . . as soon as possible.

Evidently this argument carried the day. At the end of November 1944, the Acting Head of the Canadian Naval Mission Overseas was able to report that the First Sea Lord and the Board of Admiralty had approved the transfer and the recommendation had gone to the British Cabinet for final approval. However, the transfer of the carriers was reopened by the Third Sea Lord and Controller of the Royal Navy, Vice-Admiral Sir W. Frederick Wake-Walker, who:

> wanted to make the Admiralty offer of the ships conditional upon Naval Service Headquarters agreeing to man one fleet repair ship for the Royal

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Service of Canada, vol. II, p. 104.

[74]Signal from Canadian Naval Mission Overseas to Naval Service Headquarters, dated October 16, 1944, as cited in "History of Negotiations in London for Acquisition of Light Fleet Aircraft Carriers and Flotilla of Fleet Destroyers," prepared by the Head of the Canadian Naval Mission Overseas, dated May 12, 1944, DHist 8020-147/25. The following quotes are from the aforementioned document.

Navy.

This was opposed by Todd who received the necessary support from the Plans Division, Admiralty, and the Military Branch to have the Controller's objections overruled. In the interim Naval Service Headquarters had advised the Admiralty that owing to current manpower shortages, the Royal Canadian Navy would be unable to man H.M.S. *Ocean* before September 1945 and proposed instead H.M.S. *Warrior* and *Magnificent,* which were due to complete in September and November 1945, respectively.

The formal offer of the transfer came from Great Britain on January 14, 1945. The conditions of the transfer were as follows:

(a) The ships would be available for transfer on loan only.

(b) All ships commission as H.M.C. Ships, there being no lend-lease complications.

(c) The Canadian government to be responsible for the pay of all Royal Navy personnel borne, at Canadian rates.

(d) The Admiralty would provide aircraft, aircraft equipment and spare parts.

(e) The Royal Navy would render full assistance in filling Royal Canadian Navy manning deficiencies of key personnel.

(f) The ships would remain under Admiralty operational control in any theatre.

In view of the Canadian government's policy (reached at Quebec) with regards to the Pacific, the question of the ships deployment proved a major stumbling block in the Anglo-Canadian negotiations.

The Admiralty agreed in late January 1945 to modify their conditions to the

effect that it was intended to deploy these ships in the Pacific but should urgent operational or logistic requirements necessitate a change of plan Naval Service Headquarters would be consulted. The Minister for Naval Services recommended acceptance of the latest Admiralty proposal and this was communicated to the Cabinet War Committee.[75] On February 14, 1945, the Cabinet War Committee agreed to accept the Admiralty's offer provided that the ships were deployed in the Central Pacific in keeping with previously decided Government policy and that Canada had the option to buy the carriers at a later date if so desired.[76]

The Canadian demands were disheartening from the British point of view given the Royal Navy's continued manpower shortages. Negotiations continued throughout March 1945 between the Canadian Naval Mission Overseas, the Admiralty and Naval Service Headquarters. Following discussions with the Naval Assistant (Policy and Plans) of the Canadian Naval Mission Overseas, the Plans Division, Admiralty, and the Military Branch, the Admiralty, stated that:

> They were prepared to recommend acceptance of the Canadian terms . . . after it was made clear that the carriers would not be required for operations in South-East Asia Command.[77]

The only real progress made during March 1945 came when Naval Service Headquarters

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[75]Memorandum from the Minister of National Defence for Naval Services to the Cabinet War Committee, date February 14, 1945, file no. T.S. 11745-7, vol. I and T.S. 11745-9, vol. I, Minutes of the Cabinet War Committee MG 26/J4.

[76]Minutes of the Cabinet War Committee, dated February 14, 1945, MG 26/J4.

[77]"History of Negotiations in London for Acquisition of Light Fleet Aircraft Carriers and Flotilla of Fleet Destroyers," prepared by the Head of the Canadian Naval Mission Overseas,dated May 12, 1945, DHist 8020-147/25.

decided to begin infiltration of Royal Canadian Navy personnel into Royal Navy light fleet carriers in preparation for the acquisition of H.M.S. *Warrior* and *Magnificent.*

When it was learned that the transfer of the carriers to Canada was linked to the transfer of two cruisers and a carrier to Australia, the Head of the Canadian Naval Mission suggested that a personal signal to Churchill or a ministerial request might expedite matters. This recommendation, however, was rejected on the "grounds that the Government's decision regarding volunteers for the Pacific War precluded official re-opening of the carrier question by the Cabinet."[78] The British Cabinet finally approved the Canadian terms of the transfer on March 20, 1945, and the final terms of the transfer were communicated to Naval Service Headquarters three days later. Naval Service Headquarters officially accepted the amended Admiralty proposal on May 7, 1945.[79]

The negotiations for the transfer of both the escort carriers and the light fleet carriers had been a difficult and at times frustrating process, made even more so, because the Canadian government had not yet not approved the formation of a Royal Canadian Naval Air Service. However, there was cause for celebration on two fronts. Not only had Germany surrendered, but the Royal Canadian Navy could finally look forward to the commissioning of two modern light fleet carriers. The history of the

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[78]J. D. F. Kealy and E. C. Russell, A History of Canadian Naval Aviation 1918-1962, p. 36. Prime Minister Mackenzie King had recently instructed that only volunteer personnel would be sent to the Pacific theatre and a decision on the carriers would have to wait until the necessary volunteers had been found before negotiations could proceed.

[79]"History of Negotiations in London for Acquisition of Light Fleet Aircraft Carriers and Flotilla of Fleet Destroyers," prepared by the Head of the Canadian Naval Mission Overseas, dated May 12, 1945, DHist 8020-147/25.

negotiations for the creation of a Royal Canadian Naval Air Service is a story of a handful of determined and dedicated Royal Canadian Navy officers, who in the face of disinterest on one hand and stern opposition on the other, never wavered from their course. The groundwork that was laid during the last two years of the war greatly facilitated the creation of the Royal Canadian Naval Air Arm on December 19, 1945. Between the end of the war in Europe and the creation of a naval air arm late in 1945, the navy would have to fight a constant rearguard action to ensure the fledgling air arm's survival as the approval for the transfer of the carriers did not commit the Canadian government to the creation of the Royal Canadian Naval Air Arm. This, however, is another story.

CONCLUSION

Previous scholarship has suggested that pressure for expansion of the Royal Canadian Navy emanated from the Royal and "Imperial Navy" men found within the Canadian navy.[1] As far as the Royal Canadian Naval Air Service was concerned, the documents suggest otherwise. The previous chapters have shown that the original concept and subsequent development of Canada's naval air arm owe their existence to the work and dedication of a small number of Royal Canadian Navy officers. Their endeavours were aided by the following factors: the vicissitudes of the Battle of the Atlantic, and the chronic manpower shortages experienced by the Royal Navy during the latter stages of the war.

The origins of the Royal Canadian Naval Air Service were also inextricably intertwined with the Royal Canadian Navy's role in anti-submarine warfare during the Second World War. Indeed the naval air arm was originally conceived as an anti-submarine force for deployment with Canadian escort groups operating in the mid-Atlantic. In addition, the creation of the Royal Canadian Naval Air Service must be viewed in terms of the Canadian navy's desire to acquire a balanced navy, in which aircraft carriers were considered to be an integral component. The manning of H.M. Ships *Nabob* and *Puncher* by Canadian personnel served as the "stepping stones" in that process. By the end of the war, however, it was realized by Lay, Bidwell, Stead, Nelles, Jones, Creery, and Angus L. Macdonald that if the Canadian Naval Air Arm did not

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[1]See W. A. B. Douglas, "Conflict and Innovation in the Royal Canadian Navy, 1939-1945," p. 210.

want to be relegated to convoy duties in the postwar period because of the escort carriers' limited capabilities, it would be necessary to obtain two modern light fleet carriers, which were admirably suited for fleet operations or providing distant cover for convoys. Viewed in these terms, the acquisition of two light fleet carriers and the subsequent creation of the Royal Canadian Naval Air Arm on December 19, 1945, was a logical progression in the development and diversification of the Royal Canadian Navy. Indeed, the naval air arm was entirely consistent with the recent experiences of naval warfare and the Canadian government's policy of creating an autonomous, sovereign, middle power which was capable of defending her interests. Hence the creation of a balanced navy of which the Royal Canadian Naval air Arm was a vital ingredient.

Although the Royal Canadian Naval Air Arm took part in combat operations after the Second World War, the sterling service provided by the Canadian sailors who manned H.M.S. *Nabob* and *Puncher* forms an important but often forgotten chapter in the history of the Royal Canadian Navy. This thesis aimed to rescue those officers and men from obscurity and to establish the wartime political and naval environment from which Royal Canadian Navy aviation sprang.

BIBLIOGRAPHY

Details of the important sources held at the National Archives of Canada and the Directorate of History, National Defence Headquarters, are given in the relevant footnotes as the topics arise. It would unnecessarily encumber the bibliography to repeat those details here. They are found in abbreviated form here in the bibliography.

Primary Sources:

National Archives of Canada:

MG 26 W. L. Mackenzie King Papers

MG 30 H. G. De Wolf Papers

RG 24 Acquisition of C.V.E.'s, 1944
Aircraft Carriers--Carrier Support Groups, 1943
Aircraft Carriers, 1943-1944
Aircraft Carriers, 1945
Canadian Naval Liaison Records
Commanding Officer Atlantic Coast Files
Disposition and Allocation of H.M.C. Ships Files
Manning Policy--Royal Canadian Navy Assistance to Royal Navy, 1943-1944
Naval Service Headquarters Central Registry Files
Organization and Administration of Air Branch
Post-War Canadian Navy Files
Reports of Proceedings
Senior Canadian Liaison Officer, London Files
Ships Files
Ships Logs

Directorate of History, National Defence Headquarters:

Acquisition of Ships Files
Aircraft Carriers General
Annual Summaries
Biographical Files
Cabinet War Committee Minutes
Conferences Files
H.M.S. Nabob File
H.M.S. Puncher File
Naval Aviation Files
Naval Board Minutes
Naval Council Minutes
Naval Historian's Files

Naval Policy Files
Naval Staff Minutes
Operations Files
Personnel Files
P. W. Nelles Papers
Report of Proceedings
Ships Files
Ships Logs
Ships Movement Cards

Principal Narratives:
"Canadian Ships with the Home Fleet, 1943-1945"

Public Record Office, Great Britain:

ADM 1 Admiralty and Secretariat Papers
AMD 116 Admiralty and Secretariat Papers
ADM 119 War History Cases

Primary Sources, Publications:

Canada. Department of National Defence. Navy List.

Great Britain. Admiralty Historical Section. Naval Staff History. Battle Summary No. 22. "Arctic Convoys 1941-1945." BR 1736 (44) London: December 1954.

--------. Admiralty Historical Section. Naval Staff History. Battle Summary No. 27. "Naval Aircraft Attack on the *Tirpitz* (Operation 'Tungsten') 3rd April, 1944. BR 1736. (20) London: November 1944.

--------. Admiralty Historical Section. Naval Staff History. Home Waters and the Atlantic, vol. II, 9th April 1940-6th December 1941. BR 1736 (48)(2). London: November 1961.

--------. Admiralty Historical Section. Naval Staff History. The Defeat of the Enemy Attack on Shipping 1939-1945: A Study of Policy and Operations, vol. IA. BR 1736 (51)(IA). London: April 1957.

--------. Admiralty Historical Section. Naval Staff History. The Development of British Naval Aviation 1919-1945, vol. I. BR 1736 (53)(1). London: July 1954.

--------. Admiralty Historical Section. Naval Staff History. The Development of British Naval Aviation 1919-1945, vol. II. BR 1736 (53)(2). London: December 1956.

--------. Admiralty. Navy List.

Memoirs:

Doenitz, Admiral. Ten Years and Twenty Days. Translated by R. H. Stevens. London: Weidenfeld and Nicolson Ltd., 1959.

Lay, Rear-Admiral H. Nelson. Memoirs of a Mariner. Ottawa: Lowe-Martin Company INc., 1982.

Interviews:

Rear-Admiral Charles Joseph Dillon, February 10, 1983.

Rear-Admiral H. Nelson Lay, January 14, 1974.

Secondary Sources:

Apps, Michael, Lt.-Commander. Send Her Victorious. London: William Kimber and Company Ltd., 1971.

--------. The Four Ark Royals. London: William Kimber and Company Ltd., 1976.

Barker, Ralph. The Ship-Busters: The Story of the R.A.F. Torpedo-Bombers. London: Chatto and Windus, 1957.

Beaver, Paul. The British Aircraft Carrier. London: Thorsons Publishing Group, 1984.

Beesly, Patrick. Very Special Intelligence: The Story of the Admiralty's Operational Intelligence Centre 1939-1945. London: Hamish Hamilton Ltd., 1977.

Bekker, Cajus. Hitler's Naval War. London: Macdonald and Jane's Company, 1974.

Blackett, P. M. S. Studies of War: Nuclear and Conventional. London: Oliver and Boyd Ltd., 1962.

Boutilier, James A. ed. The RCN in Retrospect, 1910-1968. Vancouver: The University of British Columbia Press, 1985.

Boyer, Chaz. Supermarine Spitfire. New Jersey: Prentice-Hall Inc., 1983.

Brodie, Bernard. A Guide to Naval Strategy. New York: Frederick A. Praeger Publishers, 1965.

Brown, David. Carrier Fighters 1939-1945. London: Macdonald and Jane's Company, 1975.

--------. Tirpitz the Floating Fortress. London: Arms and Armour Press, 1977.

--------. Carrier Operations in World War II. London: Ian Allan Ltd., 1974.

Butler, J. R. M. and J. M. A. Gwyer. Grand Strategy, vol. III, June 1941-August 1942. London: Her Majesty's Stationery Office, 1964.

Cagle, Malcolm W. The Naval Aviation Guide. Annapolis: United States Naval Institute, 1969.

Cameron, Ian. Wings of the Morning: The Story of the Fleet Air Arm in the Second World War. London: White Lion Publishers Ltd., 1972.

Campbell, Sir Ian Vice-Admiral and Captain Donald MacIntyre. The Kola Run: A Record of Arctic Convoys 1941-1945. London: Frederick Muller Ltd., 1958.

Castillo, Captain Edmund L. Flat-Tops: The Story of Aircraft Carriers. New York: Random House, 1969.

Churchill, Winston S. Triumph and Tragedy. Boston: Houghton Mifflin Company, 1953.

--------. Closing the Ring. Boston: Houghton Mifflin Company, 1951.

Cowie, Captain J. S. Mines, Minelayers and Minelaying. London: Oxford University Press, 1949.

Domville-Fife, Charles W. Evolution of Sea Power. London: Rich and Cowan Ltd., 1939.

Douglas, W. A. B. and Brereton Greenhous. Out of the Shadows: Canada in the Second World War. Toronto: Oxford University Press, 1977.

--------. "Conflict and Innovation in the Royal Canadian Navy, 1939-1945," in Naval Warfare in the Twentieth Century, edited by Gerald Jordan, 210-33. London: Croom Helm Ltd., 1977.

Douglas, W. A. B. The Creation of a National Air Force. Toronto: University of Toronto Press, 1986.

--------, ed. The RCN in Transition 1910-1985. Vancouver: The University of British Columbia Press, 1988.

Easton, Alan. 50 North: An Atlantic Battleground. Markham, Ontario: Paperjacks Ltd., 1980.

Eayrs, James. In Defence of Canada, Vol. III, Peacemaking and Deterrence. Toronto: University of Toronto Press, 1972.

Ehrman, John. Grand Strategy, Vol. V, August 1943-September 1944. London: Her Majesty's Stationery Office, 1956.

Elliott, Peter. Allied Escort Ships of World War II. London: Macdonald and Jane's Publishers Limited, 1977.

Emme, Eugene M. The Impact of Air Power. Toronto: D. Van Nostrand Company Inc., 1957.

Friedman, Norman. Carrier Air Power. Greenwich: Conway Maritime Press, 1981.

---------. U.S. Aircraft Carriers. Annapolis: Naval Institute Press, 1983.

Fuller, J. F. C. Empire Unity and Defence. Bristol: J. W. Arrowsmith Limited, 1934.

Granatstein, J. L. Canada's War: The Politics of the Mackenzie King Government 1939-1945. Toronto: Oxford University Press, 1975.

Gretton, Vice Admiral Sir Peter. Former Naval Person. London: Cassell and Company Ltd., 1968.

Hadley, Michael L. U-Boats Against Canada: German Submarines in Canadian Waters. Kingston and Montreal: McGill-Queen's University Press, 1985.

Hanson, Norman. Carrier Pilot. Cambridge: Patrick Stephens Limited, 1979.

Hezlet, Sir Arthur Vice Admiral. Aircraft and Sea Power. London: Peter Davies, 1970.

Hinsley, F. H. British Intelligence in the Second World War: Its Influence on Strategy and Operations, Vol. I. London: Her Majesty's Stationery Office, 1979.

--------. British Intelligence in the Second World War: Its Influence on Strategy and Operations, Vol. II. London: Her Majesty's Stationery Office, 1981.

--------. British Intelligence in the Second World War: Its Influence on Strategy and Operations, Vol. III. London: Her Majesty's Stationery Office, 1984.

Hough, Richard. Former Naval Person Churchill and the Wars at Sea. London: Weidenfeld and Nicholson, 1985.

--------. The Longest Battle: The War at Sea 1939-45. London: Weidenfeld and Nicholson, 1986.

Ireland, Bernard. The Rise and Fall of the Aircraft Carrier. London: Marshall

Cavendish Books Limited, 1979.

Jackson, Robert. Strike from the Sea: A Survey of British Naval Air Operations, 1909-69. London: Arthur Barker Limited, 1970.

Jacobsen, Hans-Adolf and Arthur L. Smith, Jr. World War II Policy and Strategy: Selected Documents with Commentary. Santa Barbara: Clio Press, 1979.

Jordan, Gerald, ed. Naval Strategy in the Twentieth Century 1900-1945. London: Croom Helm Ltd., 1977.

Kealy, J. D. F. and E. C. Russell. A History of Canadian Naval Aviation 1918-1962. Ottawa: Department of National Defence, 1965.

Kemp, Lt. Cdr. P. K. Fleet Air Arm. London: Herbert Jenkins, 1954.

--------. Victory at Sea 1939-1945. London: Frederick Muller Ltd., 1957.

Lawrence, Hal. Tales of the North Atlantic. Toronto: McClelland and Stewart Limited, 1985.

Leacock, Stephen and Leslie Roberts. Canada's War at Sea. Montreal: Albah M. Beatty Publishers, 1943.

Lenton, H. T. Navies of the Second World War: British Battleships and Aircraft Carriers. London: Macdonald and Company Ltd., 1972.

Lenton, H. T. and J. J. Colledge. British and Dominion Warships of World War II. Doubleday and Company Inc., 1968.

Lingard, C. Cecil and Reginald G. Trotter. Canada in World Affairs: September 1941 to May 1944. Toronto: Oxford University Press, 1950.

Lund, W. D. G. "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic: 1941-43, in The RCN in Retrospect, 1910-1968. ed. James A. Boutilier. Vancouver: The University of British Columbia Press, 1985, pp. 138-57.

MacIntyre, Donald. Narvik. Ottawa: Department of National Defence, 1959.

--------. The Battle of the Atlantic. London: B. T. Batsford Ltd., 1961.

--------. The Naval War Against Hitler. London: B. T. Batsford Ltd., 1971.

--------. Aircraft Carrier: The Majestic Weapon. New York: Ballantine Books Inc., 1971.

Martienssen, Anthony. Hitler and His Admirals. London: Secker and Warburg, 1948.

Miller, Nathan. The Naval Air War 1939-1945. New York: The Nautical and Aviation Publishing Company of America, 1980.

Milner, Marc. North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys. Toronto: University of Toronto Press, 1985.

--------. "Royal Canadian Navy Participation in the Battle of the Atlantic Crisis of 1943," in The RCN in Retrospect, 1910-1968, ed. James A. Boutilier. Vancouver: The University of British Columbia Press, 1985, pp. 158-74.

Ministry of Information. Fleet Air Arm. London: Her Majesty's Stationery Office, 1943.

Moore, Lt. Cdr. John. Escort Carrier. London: Hutchinson and Company Ltd., n.d.

Morison, Samuel Eliot. History of United States Naval Operations in World War II. Vol. I, The Battle of the Atlantic September 1939-May 1943. Boston: Little, Brown and Company, 1960.

--------. History of United States Naval Operations in World War II. Vol. X, The Atlantic Battle Won May 1943-May 1945. Boston: Little, Brown and Company, 1960.

Morton, Desmond. Canada and War: A Military and Political History. Toronto: Butterworth and Company Ltd., 1981.

--------. A Military History of Canada. Edmonton: Hurtig Publishers Ltd., 1985.

Ollivier, Maurice. The Colonial and Imperial Conferences from 1887 to 1937. Vol. III, Imperial Conferences, Part II. Ottawa: Queen's Printer, 1954.

--------. The Colonial and Imperial Conferences from 1887 to 1937. Vol. II, Imperial Conferences, Part I. Ottawa: Queen's Printer, 1954.

Patterson, Temple. The Jellicoe Papers. Vol. II. London: Spottiswoode, Ballantyne and Co. Ltd., 1968.

Pawlowski, Gareth L. Flat-Tops and Fledglings: A History of American Aircraft Carriers. Cranbury, New York: A. S. Barnes and Co. Inc., 1971.

Peden, G. C. British Rearmament and the Treasury: 1932-1939. Edinburgh: Scottish Academic Press, 1979.

Pettipas, Leo. Canadian Naval Aviation 1945-1968. Winnipeg: Canadian Naval Air Group, 1986.

Pickersgill, J. W. The Mackenzie King Record, Vol. I, 1939-1944. Toronto: University

of Toronto Press, 1960.

--------. The Mackenzie King Record, Vol. II, 1944-1945. Toronto: University of Toronto Press, 1968.

Pitt, Barrie. The Battle of the Atlantic. Time-Life Books Inc., 1977.

Polmar, Norman. Aircraft Carriers. New York: Doubleday and Company, 1969.

--------. Aircraft Carriers: A Graphic History of Carrier Aviation and Its Influence on World Events. New York: Doubleday and Company, Inc., 1969.

Poolman, Kenneth. Escort Carrier 1941-1945: An Account of British Escort Carriers in Trade Protection. London: Ian Allen Ltd., 1972.

--------. The Sea Hunters: Escort Carriers v. U-Boats, 1941-1945. London: Arms and Armour Press, 1982.

Popham, Hugh. Into Wind. London: Hamish Hamilton Ltd., 1969.

Potter, E. B. and Chester W. Nimitz. The Great Sea War: The Story of Naval Action in World War II. New Jersey: Prentice-Hall Inc., 1960.

Puleston, Captain W. O. The Influence of Sea Power in World War II. Westport: Greenwood Press Publishers, 1970.

Ready, J. Lee. Forgotten Allies: The Military Contribution of the Colonies, Exiled Governments, and Lesser Powers to the Allied Victory in World War II. Vol. I, The European Theater. London: McFarland and Company Inc., Publishers, 1985.

Reit, Seymour. Masquerade: The Amazing Camoflage Deceptions of World War II. New York: Hawthorn Books Inc., 1978.

Reynolds, Clark G. The Fast Carriers: The Forging of an Air Navy. Toronto: McGraw-Hill Book Company, 1968.

--------. The Carrier War. Virginia: Time-Life Books, 1982.

Roberts, Leslie. There Shall Be Wings: A History of the Royal Canadian Air Force. Toronto: Clarke, Irwin and Company Limited, 1959.

Rohwer, Jurgen. The Critical Convoy Battles of March 1943: The Battle for HX. 229/SC 122. London: Ian Allen Ltd., 1977.

Roskill, Capt. S. W. White Ensign: The British Navy at War 1939-1945. Annapolis: United States Naval Institute, 1960.

--------. Naval Policy Between the Wars. Vol. I, 1919-1929. London: Collins Press,

1968.

--------. Naval Policy Between the Wars. Vol. II, 1930-1939. London: Collins Press, 1976.

--------. Documents Relating to the Naval Air Service. Vol. I, 1908-1918. London: Navy Records Society, 1969.

--------. The Strategy of Sea Power: Its Development and Application. London: Collins Press, 1962.

--------. The War at Sea, 1939-1945. Vol. I. London: Her Majesty's Stationery Office, 1954.

--------. The War at Sea, 1939-1945. Vol. II. London: Her Majesty's Stationery Office, 1956.

--------. The War at Sea, 1939-1945. Vol. III, part I. London: Her Majesty's Stationery Office, 1960.

--------. The War at Sea, 1939-1945. Vol. III, part II. London: Her Majesty's Stationery Office, 1961.

--------. The Navy at War 1939-1945. London: St. Jame's Place, 1960.

Ross, Tweed Wallis Jr. The Best Way to Destroy a Ship: The Evidence of European Naval Operations in World War II. Kansas: MA/AH Publishing, n.d.

Rotherham, Capt. G. A. Its Really Quite Safe. Belleville: Hangar Books, 1985.

Ruge, Vice Admiral Friedrich. Der Seekrieg./ Trans. by M. G. Saunders. Annapolis: United States Naval Institute, 1960.

Schofield, B. B. The Russian Convoys. London: B. T. Batsford Ltd., 1964.

Schofield, Vice Admiral B. B. The Arctic Convoys. London: MacDonald and Jane's Publishers Ltd., 1977.

Schofield, B. B. British Sea Power: Naval Policy in the Twentieth Century. London: B. T. Batsford Ltd., 1967.

Schull, Joseph. The Far Distant Ships. Ottawa: Queen's Printer, 1952.

Skiera, Joseph A. Aircraft Carriers in Peace and War. New York: Franklin Watts Inc., 1965.

Souard, Stuart. "Canadian Naval Aviation, 1915-69" in The RCN in Retrospect 1910-

1968, edited by James A. Boutilier. Vancouver: The University of British Columbia Press, 1982.

Stacey, C. P. The Military Problems of Canada: A Survey of Defence Policies and Strategic Conditions Past and Present. Toronto: The Ryerson Press, 1940.

--------. Canada and the Age of Conflict: A History of Canadian External Policies. Vol. II, 1921-1948, The Mackenzie King Era. Toronto: University of Toronto Press, 1981.

--------. Arms, Men and Governments: The War Policies of Canada 1939-1945. Ottawa: Queen's Printer, 1970.

--------. Mackenzie King and the Atlantic Triangle. Ottawa: Macmilland of Canada, 1976.

Sturtivant, Ray. Fleet Air Arm at War. London: Ian Allan Ltd., 1982.

Terrell, Edward. Admiralty Brief: The Story of Inventions that Contributed to Victory in the Battle of the Atlantic. Toronto: George G. Harrap and Co. Ltd., 1958.

Thetford, Owen. British Naval Aircraft Since 1912. London: Putnam and Company Ltd., 1982.

Till, Geoffrey. Air Power and the Royal Navy 1914-1945. London: Jane's Publishing Company, 1979.

Tucker, Gilbert Norman. The Naval Service of Canada. 2 vols. Ottawa: King's Printer, 1952.

--------. The Naval Service of Canada. Vol. I. Ottawa: Queen's Printer, 1952.

van der Vat, Dan. The Atlantic Campaign: The Great Struggle at Sea 1939-1945. Toronto: Hodder and Stoughton, 1988.

Winton, John. Air Power at Sea 1939-1945. London: Sidgwick and Jackson Ltd., 1976.

--------. Convoy: The Defence of Sea Trade 1890-1990. London: Michael Joseph Ltd., 1983.

Wise, S. F. Canadian Airmen and the First World War: The Official History of the Royal Canadian Air Force, Vol. I. Toronto: University of Toronto Press, 1980.

Woodward, David. The Tirpitz and the Battle for the North Atlantic. New York: W. W. Norton and Company Inc., 1954.

Wragg, David W. A Dictionary of Aviation. London: Cox and Wyman Ltd., 1973.

Zimmerman, David. The Great Naval Battle of Ottawa. Toronto: University of Toronto Press, 1989.

Unpublished Sources:

Douglas, W. A. B. "The Air Weapon in Defence of Shipping, 1914-1945." 1986. DHist 86/500.

Lund, Wilfred Gourlay. "The Strategy of the Commonwealth Anti-Submarine Forces Against the U-Boats in the Battle of the Atlantic: September 1939 to May 1943." Victoria: University of Victoria unpublished honours paper, 1971.

Wright, Jeffrey K. "The Canadianists: A Desire for a 'Small Fleet' Royal Canadian Navy." Kingston: unpublished honours paper, 1980. DHist 89/18.

Journal Articles:

"Canada and Imperial Defence" in Canadian Defence Quarterly, vol. XIII. October 1935 to July 1936, pp. 28-36.

Canuck. "The Problems of Canadian Defence" in Canadian Defence Quarterly, vol. XV. October 1937 to July 1938, pp. 264-73.

Dillon, Charles. "H.M.S. *Nabob*" in The Bulletin. Victoria: Maritime Museum of British columbia, no. 25 (June 1974), pp. 1-9.

Hampshire, Cecil A. "The Escort Carriers of World War II" in the Royal United Service Institution Journal. London: R.U.S.I., vol. CX, no. 639. (August 1965): 262-69.

Nixon, Captain C. P. "The Smaller Navies" in United States Naval Institute Proceedings, vol. 90, no. 7 (July 1964), pp. 61-68.

Puleston, Captain William D. "The Impact of Aviation on Sea Power" in United States Naval Institute Proceedings, vol. 69, no. 482 (April 1943), pp. 475-88.

Syrett, David and W. A. B. Douglas. "The North Atlantic Triangle in Disarray: Closing the Greenland air Gap, 1942-43" in Marine-Rundschau, 1985, pp. 1-47.

APPENDIX I

A SELECTIVE SUMMARY OF PRINCIPAL STAFF APPOINTMENTS AND THE OFFICERS WHO HELD THEM 1939-1945, AND AN ORGANIZATIONAL CHART OF NAVAL SERVICE HEADQUARTERS, 1939 AND 1945

Minister of Defence for the Naval Service	
Honourable Angus L. Macdonald	July 1940-April 1945
Chief of the Naval Staff	
Vice-Admiral P. W. Nelles	1934-January 1944
Vice-Admiral G. C. Jones	January 1944-1945
Vice-Chief of the Naval Staff	
Captain L. W. Murray	September 1939-October 1940
Captain H. E. Reid	October 1940-October 1942
Rear Admiral G. C. Jones	October 1942-January 1944
Assistant Chief of the Naval Staff (est. June 1943)	
Commander W. B. Creery	June 1943-December 1944
Captain Harry G. DeWolf	December 1944-July 1945
Chief of Naval Personnel	
Commander Cuthbert R. H. Taylor	September 1939-September 1940
Captain H. T. W. Grant	September 1940-October 1942
Captain E. R. Mainguy	October 1942-September 1944
Commander Geoffrey B. Hope	September 1944-1945
Captain Adrian M. Hope	July 1945
Naval Secretary/Secretary of the Naval Board	
Paymaster Captain M. J. R. O. Cossette	1935-January 1942
Paymaster Commander R. A. Pennington	January 1942-June 1943
Paymaster Commander J. Jeffrey	June 1943-1945
Director of Naval Air Division	
Commander (P) J. S. Stead (Temporary) (Acting)	April 1944-April 1945
Commander (A) J. H. Arlick (Temporary)	May 1945-February 1946
Director of Operations Division	
Captain L. W. Murray	September 1939-June 1940
Commander R. E. S. Bidwell	June 1940-June 1941

Captain H. N. Lay	June 1941-April 1943
Captain W. B. Creery	April 1943-June 1943
Commander G. F. Griffiths	June 1943-December 1944
Commander Herbert S. Rayner	December 1944-July 1945

Director of Plans Division

Commander F. L. Houghton	July 1939-June 1942
Captain H. G. DeWolf	June 1942-August 1943
Captain G. R. Miles	August 1943-December 1944
Commander Herbert S. Rayner	December 1944-December 1945
Captain H. N. Lay	December 1945-April 1948

Director of Trade Division

Captain E. R. Brand	July 1939-1945

Director of Signal Division (est. January 1942)

Commander G. H. Worth	January 1942-1945

Director of Warfare and Training Division (est. June 1943; post not filled until December 1943; run by Deputy D.W.T., Captain H. McMaster, June 1943-December 1943)

Captain K. F. Adams	December 1943-August 1944
Commander J. S. Stead, Staff Officer (Air) D.W.T.	May 1943-April 1944

Commanding Officers of Aircraft Carriers

H.M.S. *Nabob*

Captain H. N. Lay (Acting)	October 1943-September 1944

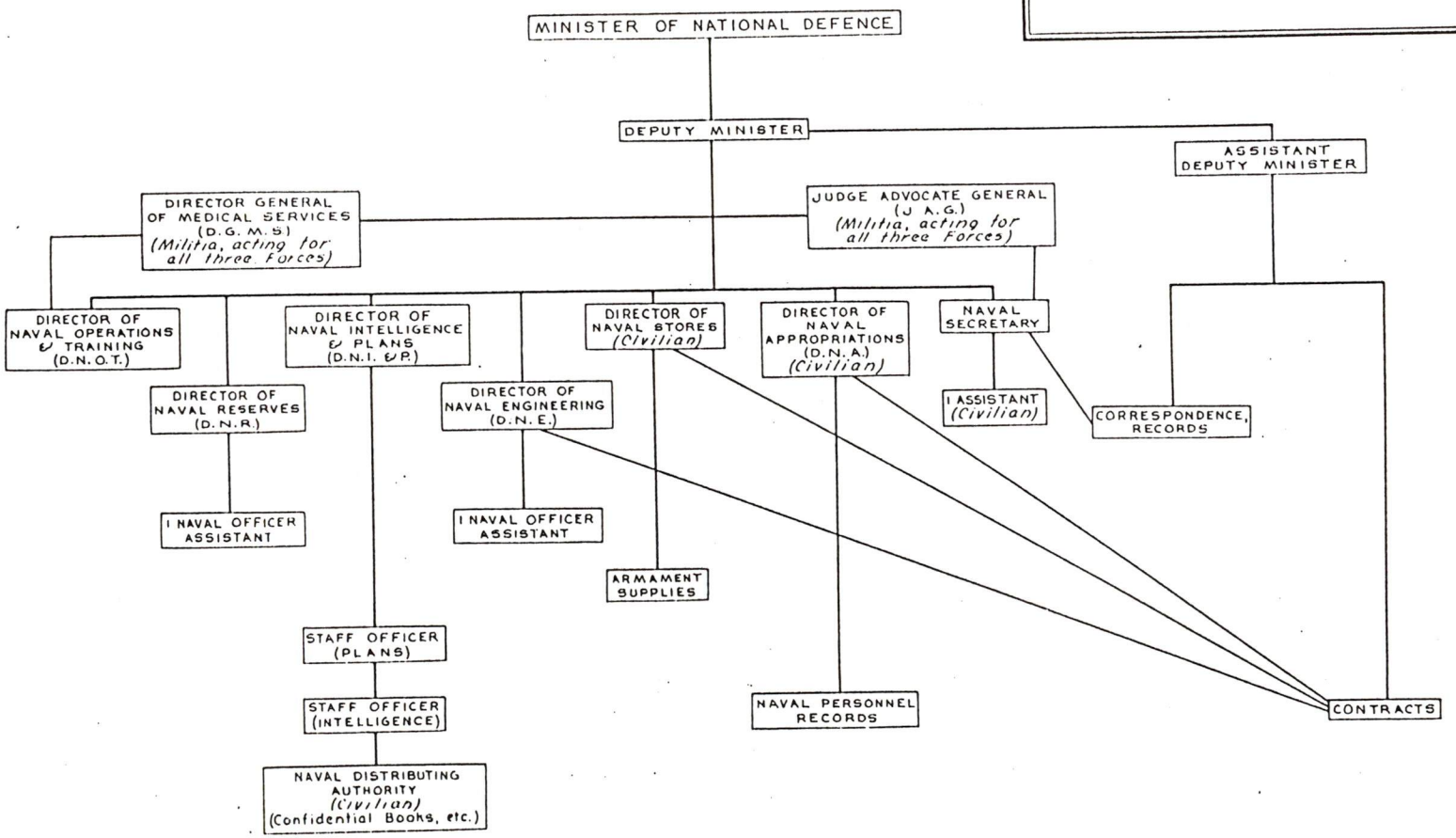
H.M.S. *Puncher*

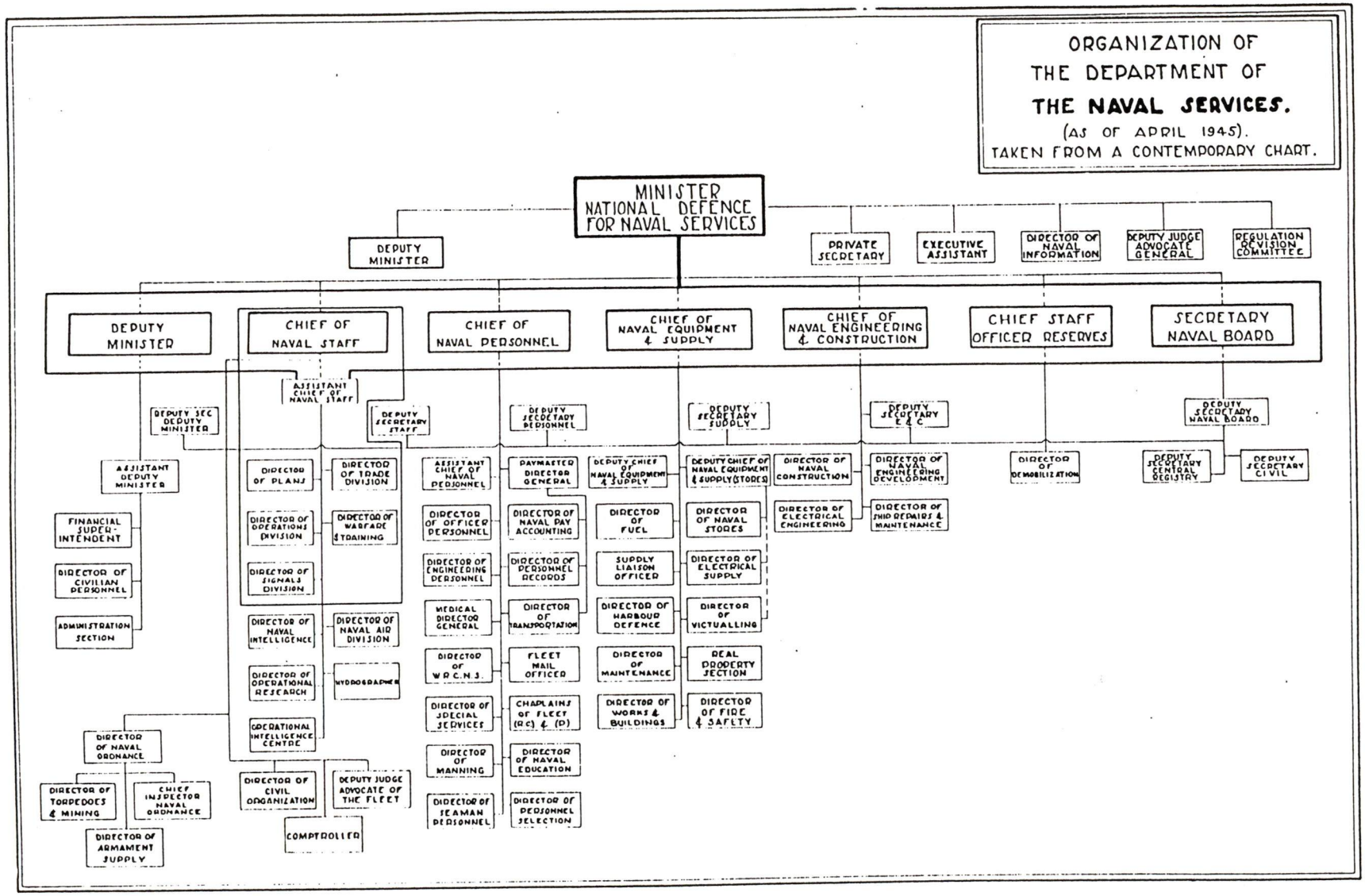
Captain R. E. S. Bidwell (Acting)	April 1944-January 1946

Note: This chart is not a contemporary record, but was compiled for the History from various sources of information.

ORGANIZATION OF NAVAL SERVICE HEADQUARTERS

Summer of 1939




ORGANIZATION OF
THE DEPARTMENT OF
THE NAVAL SERVICES.
(AS OF APRIL 1945).
TAKEN FROM A CONTEMPORARY CHART.
MINISTER
NATIONAL DEFENCE
FOR NAVAL SERVICES
DEPUTY MINISTER
PRIVATE SECRETARY
EXECUTIVE ASSISTANT
DIRECTOR OF NAVAL INFORMATION
DEPUTY JUDGE ADVOCATE GENERAL
REGULATION REVISION COMMITTEE
DEPUTY MINISTER
CHIEF OF NAVAL STAFF
CHIEF OF NAVAL PERSONNEL
CHIEF OF NAVAL EQUIPMENT & SUPPLY
CHIEF OF NAVAL ENGINEERING & CONSTRUCTION
CHIEF STAFF OFFICER RESERVES
SECRETARY NAVAL BOARD
DEPUTY SEC DEPUTY MINISTER
ASSISTANT CHIEF OF NAVAL STAFF
DEPUTY SECRETARY STAFF
DEPUTY SECRETARY PERSONNEL
DEPUTY SECRETARY SUPPLY
DEPUTY SECRETARY E & C
DEPUTY SECRETARY NAVAL BOARD
ASSISTANT DEPUTY MINISTER
FINANCIAL SUPERINTENDENT
DIRECTOR OF CIVILIAN PERSONNEL
ADMINISTRATION SECTION
DIRECTOR OF PLANS
DIRECTOR OF TRADE DIVISION
DIRECTOR OF OPERATIONS DIVISION
DIRECTOR OF WARFARE & TRAINING
DIRECTOR OF SIGNALS DIVISION
DIRECTOR OF NAVAL INTELLIGENCE
DIRECTOR OF NAVAL AIR DIVISION
DIRECTOR OF OPERATIONAL RESEARCH
HYDROGRAPHER
OPERATIONAL INTELLIGENCE CENTRE
DIRECTOR OF NAVAL ORDNANCE
DIRECTOR OF TORPEDOES & MINING
CHIEF INSPECTOR NAVAL ORDNANCE
DIRECTOR OF ARMAMENT SUPPLY
DIRECTOR OF CIVIL ORGANIZATION
DEPUTY JUDGE ADVOCATE OF THE FLEET
COMPTROLLER
ASSISTANT CHIEF OF NAVAL PERSONNEL
DIRECTOR OF OFFICER PERSONNEL
DIRECTOR OF ENGINEERING PERSONNEL
MEDICAL DIRECTOR GENERAL
DIRECTOR OF W.R.C.N.S.
DIRECTOR OF SPECIAL SERVICES
DIRECTOR OF MANNING
DIRECTOR OF SEAMAN PERSONNEL
PAYMASTER DIRECTOR GENERAL
DIRECTOR OF NAVAL PAY ACCOUNTING
DIRECTOR OF PERSONNEL RECORDS
DIRECTOR OF TRANSPORTATION
FLEET MAIL OFFICER
CHAPLAINS OF FLEET (R.C.) & (P)
DIRECTOR OF NAVAL EDUCATION
DIRECTOR OF PERSONNEL SELECTION
DEPUTY CHIEF OF NAVAL EQUIPMENT & SUPPLY
DIRECTOR OF FUEL
SUPPLY LIAISON OFFICER
DIRECTOR OF HARBOUR DEFENCE
DIRECTOR OF MAINTENANCE
DIRECTOR OF WORKS & BUILDINGS
DEPUTY CHIEF OF NAVAL EQUIPMENT & SUPPLY (STORES)
DIRECTOR OF NAVAL STORES
DIRECTOR OF ELECTRICAL SUPPLY
DIRECTOR OF VICTUALLING
REAL PROPERTY SECTION
DIRECTOR OF FIRE & SAFETY
DIRECTOR OF NAVAL CONSTRUCTION
DIRECTOR OF ELECTRICAL ENGINEERING
DIRECTOR OF NAVAL ENGINEERING DEVELOPMENT
DIRECTOR OF SHIP REPAIRS & MAINTENANCE
DIRECTOR OF DEMOBILIZATION
DEPUTY SECRETARY CENTRAL REGISTRY
DEPUTY SECRETARY CIVIL

APPENDIX II

GERMAN U-BOAT STRENGTH, 1939-41

Date	Operational	Training and Trials	Total	New Boats Commissioned in Previous Quarters
September 1939	49	8	57	-
January 1940	32	24	56	7
April 1940	46	6	52	4
July 1940	28	23	51	9
October 1940	27	37	64	15
January 1941	22	67	89	22
April 1941	32	81	113	30
July 1941	65	93	158	47
October 1941	80	118	198	53
January 1942	91	158	249	69

APPENDIX III

LIST OF UNITED STATES NAVY OFFICERS INTERVIEWED

Montreal: 30th April
Rear-Admiral BISSETT

Norfolk: 1st May-12th May

Rear-Admiral BELLINGER USN	- Commander Air Forces Atlantic
Captain T. L. SPRAGUE USN	- C.O.S. Air Forces Atlantic
Captain WOOD S.C. USN	- Supply Officer Air Forces Atlantic
Lt. Cmdr. DUKESHIRE S.C. USN	- Ass't. Supply Officer Air Forces Atlantic
Lt. Cdr. R. PALMEDO USNR	- Flag Lt. to Com. Air Lant
Captain W. G. TOMLINSON USN	- Comdr. Fleet Air Wing 5
Lt. Cmdr. W. H. TUTLE USN	- C.O. V.P. 201 (P. B. MARTINS)
Lt. Cmdr. A. Y. PARUNAK USN	- X.O. V.P. 201
Rear-Admiral DURGIN USN	- Cmdr. Fleet Air QUONST PT.
Lt. Cmdr. SHANDS USN	- Training Officer Air Lant
Commander	- X.O. USS "LEXINGTON"
Captain S. B. HALL USN	- Captain USS "CHARGER"
Captain	- C.O. Assembly and Repair Depot NORFOLK

Jacksonville: 5th-7th May

Rear-Admiral COOK USN	- Chief of Operational Training Command
Captain E. W. LITCH USN	- C.O.S.
Captain J. L. MICHAEL USN	- Commandant N.A.S.
Commander R. R. JOHNSON USN	- Supt. of N.A. Training
Lt. Cmdr. O. AMES USNR	- A/Operations Officer
Commander B. E. MOORE USN	- I/C VPB Training Unit
Lt. L. . EWOLDT USN	- I/C VTB Training Unit
Lt. Cmdr. SANCHEZ USN	- I/C VF Training Unit (LEE FIELD)
Lt. Cmdr. BURCH USN	- I/C VSB Training Unit (CECIL FIELD)
Commander R. D. HIGGINS USNR	- C.O. N.A. Tech. Training Centre (11,000)

Pensacola: 7th May

Rear-Admiral MURRAY USN	- Chief of Intermediate Training Command
Captain FICK USN	- C.O.S.
Captain BURACHER USN	- Commandant N.A.S.

Commander C. BRIGGS USN - Supt. of N.A. Training
Lt. Cmdr. - I/C F.A.A. Training
Flt. Lt. KNIGHT RAF - I/C R.A.F. Training

Lakehurst: 9th-12th May
Captain G. H. MILLS USN - Cmdr. Fleet Airship Wing 30
Lt. Cmdr. D. L. CORDINER USN - Ops. and Training Officer Wing 30
Captain M. R. PIERCE USN - Commandant N.A.S.
Commander D. J. WEINTRAUB USN- X.O.
Commander R. F. TYLER USN - Cmdr. Airship Group 1
Lt. Cmdr. GOSSAM USN - X.O. Squadron 12

New York: 13th-14th May
Captain KURTZ - C.O.S. to C.E.S.F.
Captain E. O. MACDONNEL USNR - Air Officer C.E.S.F.
Captain STAPLER USN - Ops. Officer C.E.S.F.

APPENDIX IV

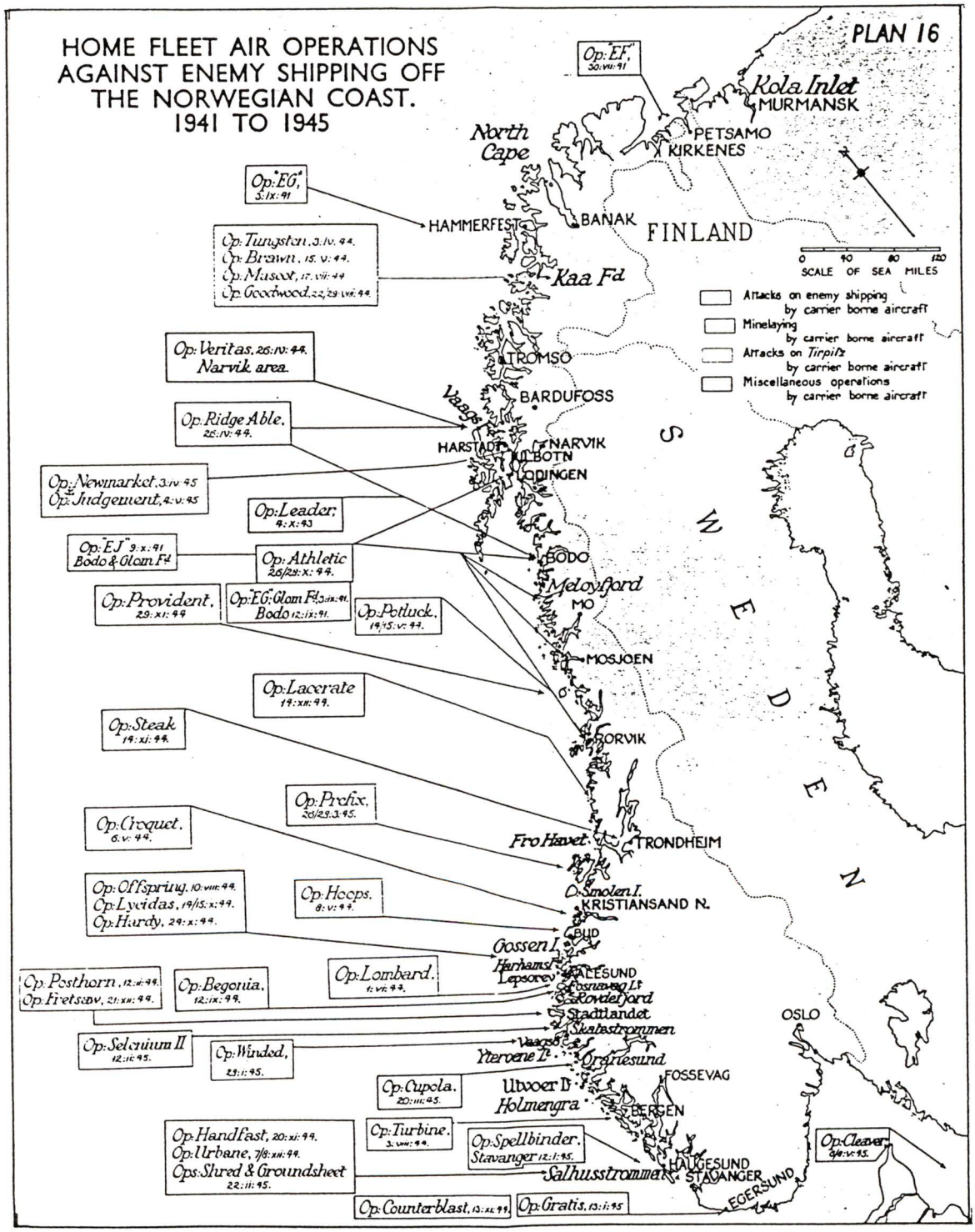
LIST OF ROYAL NAVY OFFICERS INTERVIEWED AT THE ADMIRALTY

Rear-Admiral R. H. PORTAL	- A.C.N.S. (Air)
Rear-Admiral F. H. G. DALRYMPEL-HAMILTON	- Naval Secretary to the First Lord
Captain C. W. BYAS	- Director of Naval Air Organization
Captain M. GURSHAM	- Deputy Director of Naval Air Organization
Commander TILNEY	- Staff of Director of Naval Air Organization
Commander BENTON	- Staff of Director of Naval Air Organization
Captain J. P. WRIGHT	- Director of Air Warfare and Flying Training
Captain A. D. TORDESSE	- Deputy Director of Air Warfare and Flying Training
Commander R. A. PAYTON	-)
Commander S. BOMRATT	-)
Commander A. S. BOLT	-)
Lieut. Commander MOLTRINE	-) Staff D.A.T.T.
Commander A. R. DYMOTT	-)
Commander B. S. C. SAUNT	-)
Lieut. Commander SAVAGE	-)
Lieut. Commander GRIFFITH	-)
Captain C. B. TIDD	- A.D.A.N.T. (Training)
Commander O. L. MEREDITH	- Staff of A.D.A.N.T.
Captain B. L. MOORE	- Assistant Director of Plans (Air)
Commander ATKINSON	- Staff of Director of Plans (Air)
Commander BROWN	- Staff of Director of Plans (Air)
Rear-Admiral D. W. BOYD	- Fifth Sea Lord and Chief of Naval Equipment
Captain C. N. LENTAIGNE	- Director of Air Equipment
Captain C. R. V. PUGH	- Deputy Director of Air Equipment (Aircraft)
Paymaster Captain W. E. BROCKMAN	- Assistant Director of Air Equipment
Commander (E) SPRAGUE	- Modification Section
Captain W. W. R. BENTINCK	- Assistant Director of Air Fields and Carrier Requirements
Commander (E) PHILLIPS	- Staff of D.A.C.R.
Rear-Admiral (E) J. L. BEDALE	- Director of Aircraft Maintenance and Repair
Captain (E) A. JOHNSTON	- Staff of D.A.M.R. (Repair)
Captain (E) J. FITZGIBBONS	- Staff of D.A.M.R. (Policy and Personnel)
Commander (E) HEAT	- (Training and Statistics)

Commander (E) HARRIS	- (Workshops)
Commodore M. S. SLATTERY	- Chief Naval Representative Ministry of Aircraft Production
Captain H. C. RANALD	- Deputy C.N.R.
Captain C. L. KEIGHLY-PEACH	- Naval Assistant (Air) to Second Sea Lord
Commander N. S. LUARD	- Director of Personal Services (F.A.A.)
Mr. CARTER	- Deputy Director of Stores (Air)
Mr. IRVINE	- Deputy Head of Air Branch
Mr. WATSON	- Assistant Head of Air Branch

APPENDIX V

HOME FLEET AIR OPERATIONS AGAINST ENEMY SHIPPING OFF THE NORWEGIAN COAST 1941 TO 1945



APPENDIX VI

PROPOSED CHANGES WITHIN THE NAVAL AIR DIVISION (1944)

PROPOSED NEW TERMS OF REFERENCE

DIRECTOR NAVAL AIR DIVISION.

The Director of Naval Air Division is responsible to A.C.N.S.

The following are the principal duties of the Director of Naval Air Division.

1. Functions

(a) To establish general policy governing the development of a Canadian Naval Air Branch.

(b) To establish, in conjunction with the appropriate Directors, Staff requirements for the Naval Air Branch.

(c) To implement such action as may be required as a result of approved policy or Staff requirements for the Canadian Naval Air Branch.

2. He advises on the following:-

(a) The development of Naval Air Warfare and Air Warfare generally as affecting Naval Operations.

(b) The employment of Naval Air Craft and Aircraft Carriers.

(c) The entry, training and numbers of aircrew personnel needed to establish, and operate a Naval Air Branch to enable future Canadian Naval requirements to be met.

(d) The drafting of Royal Canadian Naval Regulations governing advancement, pay and allowances of aircrew personnel corresponding to those of the Royal Naval Air Branch.

(e) The tactical co-ordination of surface vessels and non-Naval Service Air Craft; e.g. co-operation between the R.C.N. and R.C.A.F.

3. In order to carry out these duties, the Director of Naval Air Division will maintain:

(a) A complete set of all pertinent Royal Navy Air Publications and will be responsible for the custody and amendment of same.

(b) Records of all information pertaining to Naval Air Warfare and Air Matters generally.

(c) As a supplement to N.P.R., more detailed, principally professional, records of all aircrew personnel whether R.C.N. or on loan or Canadians serving with the R.N.

(d) Close liaison with Admiralty, B.A.D., the U.S. Navy and R.C.A.F. in respect of Naval Air Warfare and Air matters generally.

PROPOSED TERMS OF REFERENCE FOR DIRECTORATE OF AIRCRAFT MAINTENANCE AND EQUIPMENT.

1. The director of Aircraft Maintenance and Equipment is responsible to C.N.S. for all questions relating to Naval Aircraft engineering and equipment.

2. The directorate of Aircraft Maintenance and Equipment shall maintain sections to deal with the following matters:

(i) Aircraft Maintenance and Repair Personnel.

(ii) Aircraft Equipment Personnel.

(iii) Aircraft Technical Records, Publications and data.

(iv) Aircraft Maintenance and Repair Planning.

(v) Aircraft Equipment Planning.

(vi) Airfield and Carrier requirements Planning.

3. In addition, D.A.M.E. will be responsible for

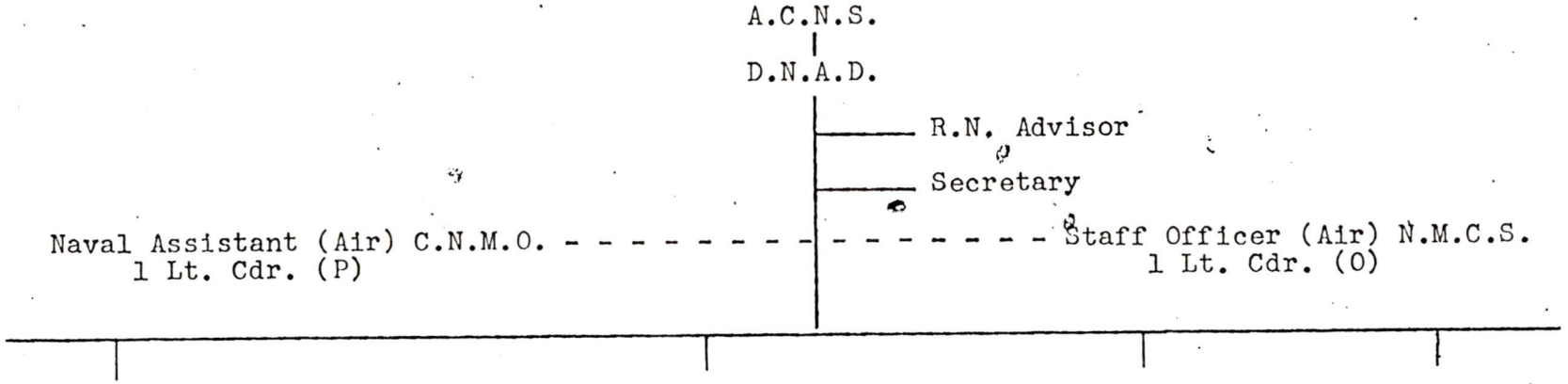
(i) Liaison with the Department of Munitions and Supply regarding supply of aircraft equipment to the Naval Air Branch.

(ii) Allotment of all aircraft and related equipment within the service and records relating to same.

(iii) All matters relating to aircraft launching and arrester gear apparatus and the training of related personnel.

APPENDIX (iii)

PROPOSED ORGANIZATION - NAVAL AIR DIVISION



Operations
Intelligence
Tactics
Aircraft Recognition

1 Lieut. (P)
1 Lieut. (O)

Training & Training Planning
Aircrew Personnel
1 Lt. Cdr. (P)
1 Lt. Cdr. (O)
1 Lt. (O) Air Signals
1 Lt. (P) Air Gunnery

Plans & Organization
Air Safety
Army Co-operation
RCAF Co-operation
Naval Air Co-ordination.
1 Lt. Cdr.(O) or (P)
1 Lt.(O) or (P)
1 F/L or Sq.Ldr.(GD) RCAF
1 RN Lt.Cdr. or Cdr. (Advisor)

Air Direction
1 Lt. (F)
1 Lt.(Radar)

PROPOSED ESTABLISHMENT
10 R.C.N. Officers
2 R.N. Officers
1 R.C.A.F. Officer

PROPOSED ORGANIZATION - D.A.M.E.

C.N.S.

DIRECTOR AIRCRAFT MAINTENANCE & EQUIPMENT - A/Cdr.(E)

D/DIRECTOR - A/Payr. Cdr.

C.N.M.O. Rep.
Lt.(E) or (A)
Pay'r. Lt.

N.M.C.S. Rep.
Lt. (E) or (A)

Secretary
Pay'r Lt.

M. & R. Personnel	M. & R. Planning	A.E. Planning	A.E. Personnel	Airfield & Carrier Requirements.
Lt.(E) or (A) S/Lt.(E) or (A) or 1 Warrant air Officer	Lt.Cdr.(E) or (A) Lt.(E) or (A)	Payr.Lt.Cdr. Payr. Lt.	Pay'r. Lieut.	Lt.Cdr.(E) or (A) Lt.(E) or (A)

TECHNICAL RECORDS & PUBLICATIONS
W.S.O. or Warrant Air Officer

1 R.N. Adviser for M. & R. Planning & Personnel - Cdr. (E) or Lt.Cdr. (E) R.N.
1 R.N. Adviser for A.E. Planning & Personnel. - Payr. Cdr. R.N.
1 R.N. Adviser for Airfield & Carrier Requirements - Cdr. (E) or Lt.Cdr. (E) or (A) R.N.

RECOMMEND APPROVED COMPLEMENT BE 12 R.C.N. OFFICERS
+ 3 R.N. ADVISERS

Abbreviations
M. & R. = Aircraft Maintenance & Repair
A.E. = Aircraft Equipment.

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Author: [redacted]

MICHAEL SHAWN CAFFERKY

September 12, 1989

Date